Reaching Up, Reaching Out: A Guide to Organizing Local Solar Events

Published by:
Solar Energy Research Institute
1617 Cole Boulevard
Golden, CO 80401 USA

Paper copies are $ 6.00. Ask for stock number 061-000-00345-2 when ordering.

Available from:
Superintendent of Documents
US Government Printing Office
Washington, DC 20402 USA

reaching up, reaching out

a guide to organizing local solar events

reaching up, reaching out

a guide to organizing local solar events

published by the market development and communication branches of the commercialization division

SERI

solar energy research institute

1617 cole boulevard
golden, colorado 80401

SERI is operated for the U.S. Department of Energy by Midwest Research Institute

For Sale by
Superintendent of Documents,
U.S. Government Printing Office
Washington, D.C. 20402
Stock number: 061-000-00345-2

the team

project leader	Rebecca Vories
project consultant	Coreen Young
editor	Rachel Snyder
project coordinator	Nancy Carlisle
graphic designer	Susan Sczepanski
illustrator	Carolyn Pesko Bartz
typist	Susan Van Horn

acknowledgements

No book is solely the product of the few people listed on the credits page, and this one is no exception. In many ways, this publication belongs to a group of people the authors never met—the thousands across the country who exemplify the **reaching up, reaching out** concept by mobilizing local talent and skills to effect community change.

In a project of this size, it's inevitable that some persons will be overlooked, although their contributions could never be. The individuals acknowledged here participated in various phases of the project, but may not endorse all that is contained in the publication. The editorial team takes full responsibility for any inaccuracies, prejudices, and lapses of common sense.

A number of people at the Solar Energy Research Institute deserve special thanks:

Paul Rappaport and Joe Carlson for their support

Jon Veigel and Keith Haggard, for being willing to accept our unorthodox working habits and continuing their support through each and every schedule revision

Joe Chervenak for ordering (and sometimes receiving) films on 24 hours notice so that we could review them

Barbara Glenn and Dan Halacy for copy-editing assistance very early on

Henri Hubenka for her help in spreading the word on ordering information

Ruth Haggard for double-checking publications ordering and price information

Donna Hawkins for wading through massive piles of publications and writing most of the annotations

Bob Lormand and Saundra Smith for turning over the resources of the Solar Energy Information Center and accomplishing great feats of acquisition

Donna Miller, Vickie Doran and Mike Lindenburger for rushing thousands of copies through the SERI Copy Center on short notice

Special thanks to Mountain Empire Publishing for stepping in on short notice and helping out with proofreading.

Next, we would like to thank representatives from the four Regional Solar Energy Centers for the time they took to advise us early on in the process and for efforts made to help us locate organizations and region-specific resources to highlight in the book.

Fred Hills, Steve Brown, Bob Mitchell and Lila Hexner, Northeast Solar Energy Center, Cambridge, Massachusetts

Norm Harold and Kathy Satoff, Mid-American Solar Energy Complex, Eagan, Minnesota

Mike Levin and Alice Wertheim, Southern Solar Energy Center, Atlanta, Georgia

Margie Harris, Lee Johnson and Nancy Carlisle, Western Solar Utilization Network, Portland, Oregon

We want to thank the representatives of the organizations highlighted in **an events sampler** for the many hours spent with us on the phone answering our endless questions and for the reams of information sent through the mail.

Lonna Evans and Anne Dunning, League of Women Voters, Los Alamos, New Mexico

Ed Andrade, Tri-City Citizens Union for Progress, Newark, New Jersey

Barbara Brown, Florida Solar Energy Center, Cape Canaveral, Florida

Steffanie Paladino, New Mexico Solar Energy Association, Santa Fe, New Mexico

Dorothy Gerasimo, West CAP, Glenwood City, Wisconsin

Bernie Beenhouwer, League of Women Voters, Santa Fe, New Mexico

Nancy Lee, Alaska Center for the Environment, Anchorage, Alaska

Rachel Snyder, Colorado Solar Energy Association, Denver, Colorado

Ron Poitrus, Northeast Carry, Hallowell, Maine

Maria and Arnie Valdez, People's Alternative Energy Services, San Luis, Colorado

Elizabeth Coppinger, Ecotope Group, Seattle, Washington

Libby Hill, Ecology Center, Evanston, Illinois

Susan Carpenter, ROMCOE-Center for Environmental Problem Solving, Denver, Colorado

Mary Van Buren, Connecticut Solar Coalition, Hartford, Connecticut

Dennis Demmel, Small Farm Energy Project, Hartington, Nebraska

Next, we would like to thank those patient folks who waded through the book page by page with us at Ghost Ranch, New Mexico, and took responsibility for the difficult (and risky) selection of books for the **survivor's kit.**

Bill Caddell, Frankfurt Community Public Library, Frankfurt, Indiana

David Cawley, Institute for Local Self-Reliance, Washington, D.C.

Leslie Davis, Solar Sustenance Team, El Rito, New Mexico

Lila Hexner, Northeast Solar Energy Center, Cambridge, Massachusetts

Irmgard Hunt, Consumer Action Now, New York, New York

Janice Jacobson, California Solar Action Network, Davis, California

Alan Lishness, Maine Audubon Society, Falmouth, Maine

Tom Minnon, New England Solar Energy Association, Brattleboro, Vermont

Erika Morgan, Solar Applications Branch, TVA, Chattanooga, Tennessee

Steffanie Paladino, New Mexico Solar Energy Association, Santa Fe, New Mexico

Dusky Rhodes, Center for Renewable Resources, Washington, D.C.

David Robinson, Mid-American Solar Energy Complex, Eagan, Minnesota

Mayo Taylor, Tennessee Environmental Council, Nashville, Tennessee

Isabelle Weber, League of Women Voters Energy Project, Washington, D.C.

Peggy Wrenn, Colorado Office of Energy Conservation and Western SUN, Denver, Colorado

Bill Yanda, Solar Sustenance Team, Santa Fe, New Mexico

A special thanks as well to Steffanie Paladino, Mary Beth Bliss, and David Miller of the New Mexico Solar Energy Association and to the folks at Ghost Ranch for arranging our stay there.

Finally, we would like to thank the many reviewers who took time out of their busy schedules to review our first draft and send or phone us comments.

Ken Bossong, Citizens' Energy Project, Washington, D.C.

Sandy Bregman, DOE/Office of Consumer Affairs, Washington, D.C.

Sue Capon, Coordinator of Community Service Programs, Middlesex College, Bedford, Massachusetts

Paige Chappel, Center for Neighborhood Technology, Chicago, Illinois

Lynda Connor, DOE/Conservation and Solar Applications, Washington, D.C.

Joe Costion, Arizona Solar Energy Association Solar Action Team, Flagstaff, Arizona

Pam Deuel, Environmental Action, Washington, D.C.

Martha Drake, Energy Extension Service, Petoskey, Michigan

Virginia Dupler, Energy Extension Service, Petoskey, Michigan

Pauline Eisenstadt, Energy Consumers of New Mexico, Albuquerque, New Mexico

Diana Ford, Mississippi Solar Council, Jackson, Mississippi

Carolyn Franklin, Clearinghouse for Community Based Free Standing Educational Institutions, Washington, D.C.

J. Francendese, National Solar Heating and Cooling Information Center, Philadelphia, Pennsylvania

Gloria Fultz, National Solar Heating and Cooling Information Center, Philadelphia, Pennsylvania

Ramon Garcia, Energy Extension Service, Washington, D.C.

Bruce Green, SERI, Golden, Colorado

Bethe Hagens, Governor's State University, Park Forest, Illinois

Jonna M. Johnson, National Solar Heating and Cooling Information Center, Philadelphia, Pennsylvania

Helene Kassler, SERI, Golden, Colorado

Tom Kenney, Alpena County Energy Coordinator, Alpena, Michigan

Mary Kumpala, Minneapolis, Minnesota

Mike Levin, Southern Solar Energy Center, Atlanta, Georgia

Jim Lopez, Colorado Coalition for Full Employment, Denver, Colorado

Marsha Marshall, Mid-American Coalition for Energy Alternatives, Shawnee Mission, Kansas

Liz Mayes, New Mexico Energy Extension Service, Albuquerque, New Mexico

Mark McCray, Columbine Institute, Boulder, Colorado

Marnie McPhee, Portland SUN, Portland, Oregon

Mike Minturn, New Mexico Energy Extension Service, Albuquerque, New Mexico

Liz Moore, SERI, Golden, Colorado

Lynn Nelson, The Habitat Center, San Francisco, California

Edward Passerini, Alabama Solar Energy Coalition, Northport, Alabama

Cris Salsbury, Inland Empire Solar Energy Association, Spokane, Washington

Jon Sesso, National Center for Appropriate Technology, Butte, Montana

Dan Shimberg, National Solar Heating and Cooling Information Center, Philadelphia, Pennsylvania

Shirley Sutton, Project Pace Setter, Philadelphia, Pennsylvania

Sharyn Towle, SERI, Golden, Colorado

Carol Vicchiarelli, SERI, Golden, Colorado

Jerome Williams, SERI, Golden, Colorado

introduction

The premise of this book is simple: individuals **can** make a difference in their energy futures. Given the proper information and possessing the right motivation, they will find extreme satisfaction in providing for some or all of their own needs and in influencing their neighbors' choices.

When the editorial team dreams, it sees community organizers all over the country, this book in hand, asking "When do we start?"

In its nightmares, a different question is posed: "Why would the Federal government, with its nearly unlimited resources, publish a manual instructing community organizers with little or no funding and largely volunteer labor how to spread the word on solar energy?"

This, of course, leads to "Wouldn't it just be easier for the government to send staff people or money around the country to organize workshops and seminars?"

Sure, it might be easier for the community people, but it's certain to be far less successful, if not a qualified failure. It's often more difficult for outside organizers to produce long-term successes. But an insider, although perhaps less experienced but more committed, can pull it off every time with a little bit of help.

reaching up, reaching out is that little bit of help. SERI is just one neighborhood within the solar community. And, as the 15 case studies you are about to read show you, different neighborhoods will use different methods and different resources to deliver the same message.

Like any neighborhood of its size, SERI is a composite of individuals with varied philosophies, backgrounds, and persuasions. Given a choice of methods for spreading the solar word, some would organize a fair and celebration, others would hold a formal seminar, still others would prefer the solitude of their scientific experiments.

The key members of the **reaching up, reaching out** team are representative of those people who came to SERI with a background of participation in community, state, or regional solar activities.

We represent three current officers and four former directors of grassroots state solar energy associations, two representatives to the 1978 National Solar Congress, and tens of thousands of hours organizing conferences, seminars, meetings, and workshops.

The group would never have attempted—nor even recognized the need for—a project like this without that personal experience. We know the frustration of not having an extra bulb when the keynote speaker's projector dies. We know the agony of having an unexpected snowstorm all but shut out a long-planned evening; we know what it's like to send out 200 press releases with an incorrect phone number.

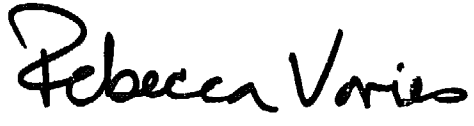
We also know the satisfaction of working with near strangers, carrying through with a successful project, and walking away from it as close friends. We've experienced the laughter of a 2 a.m. envelope stuffing marathon and the excitement of getting an "approved" on a request for funding. We have felt the tension that often erupts when volunteers push too far for too long with too little.

We know and believe in the importance of the community organization. We have learned that most things don't work from the top down—that individuals need to

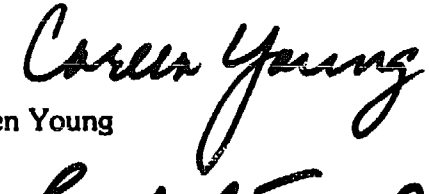
participate at every step along the way when determining their futures.

Regardless of projections or estimates, this country's store of nonrenewable resources will expire. Without a shift toward more conservative use of energy and greater reliance on solar and other renewable resources, significant social and economic changes become greater possibilities.

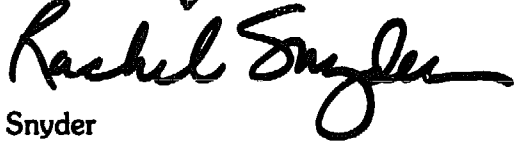
Solar energy fairs and hands-on construction workshops aren't the total answer; a solar greenhouse on a school in the Midwest won't change the course of the future. But they put us that much closer to a renewable resource society, and give each of us a little of the intense satisfaction and pride of participating in shaping our own tomorrow.



Rebecca Vories



Coreen Young



Rachel Snyder

Nancy Carlisle

a word about using this guide

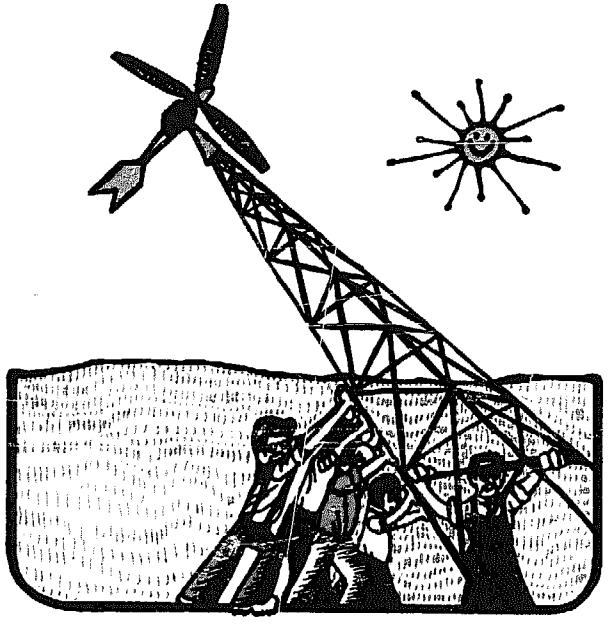
This book is divided into three sections. The first, **an events sampler,** presents 15 case studies of successful solar and energy conservation activities. Each case study includes valuable information on the organizing process and suggests how you might vary the event to better suit your local needs.

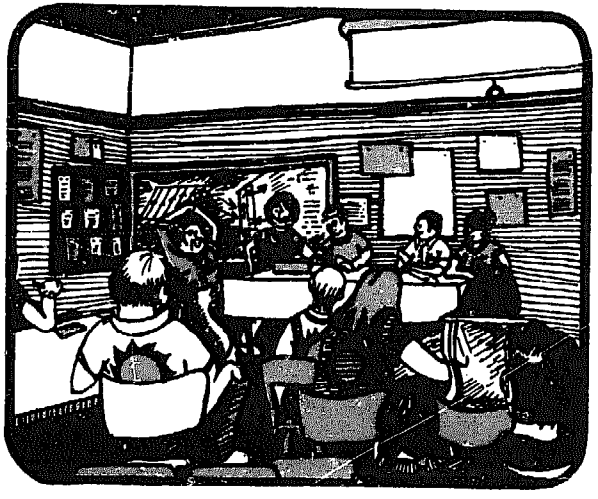
Section Two, **an organizing primer,** provides a bare-bones look at key elements of organizing. The material is not meant to be a complete reference work on the subject, but can help the beginning organizer to recognize some crucial aspects of the process.

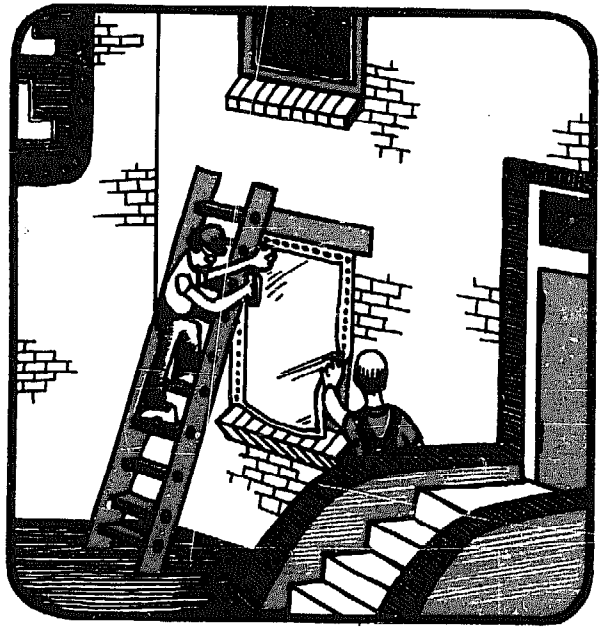
a guide to selected resources, Section Three, is a comprehensive annotated bibliography of films, slides and printed material covering 11 energy topic areas and organizing. A **survivor's kit,** selected by a team of reviewers, includes a cross section of books which are "musts" for the beginner.

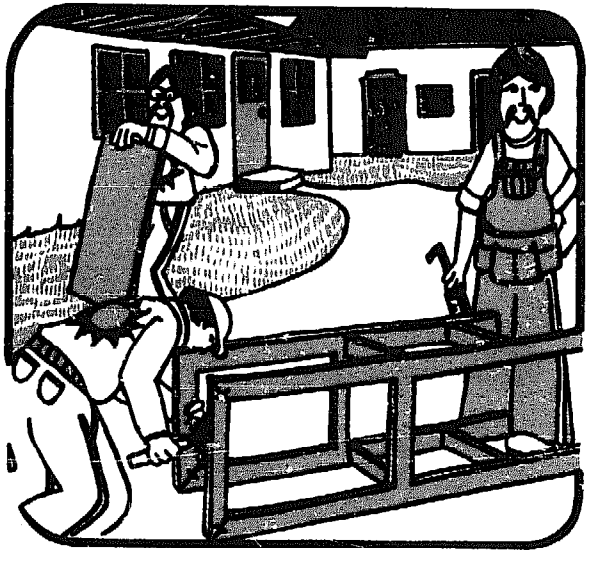
table of contents

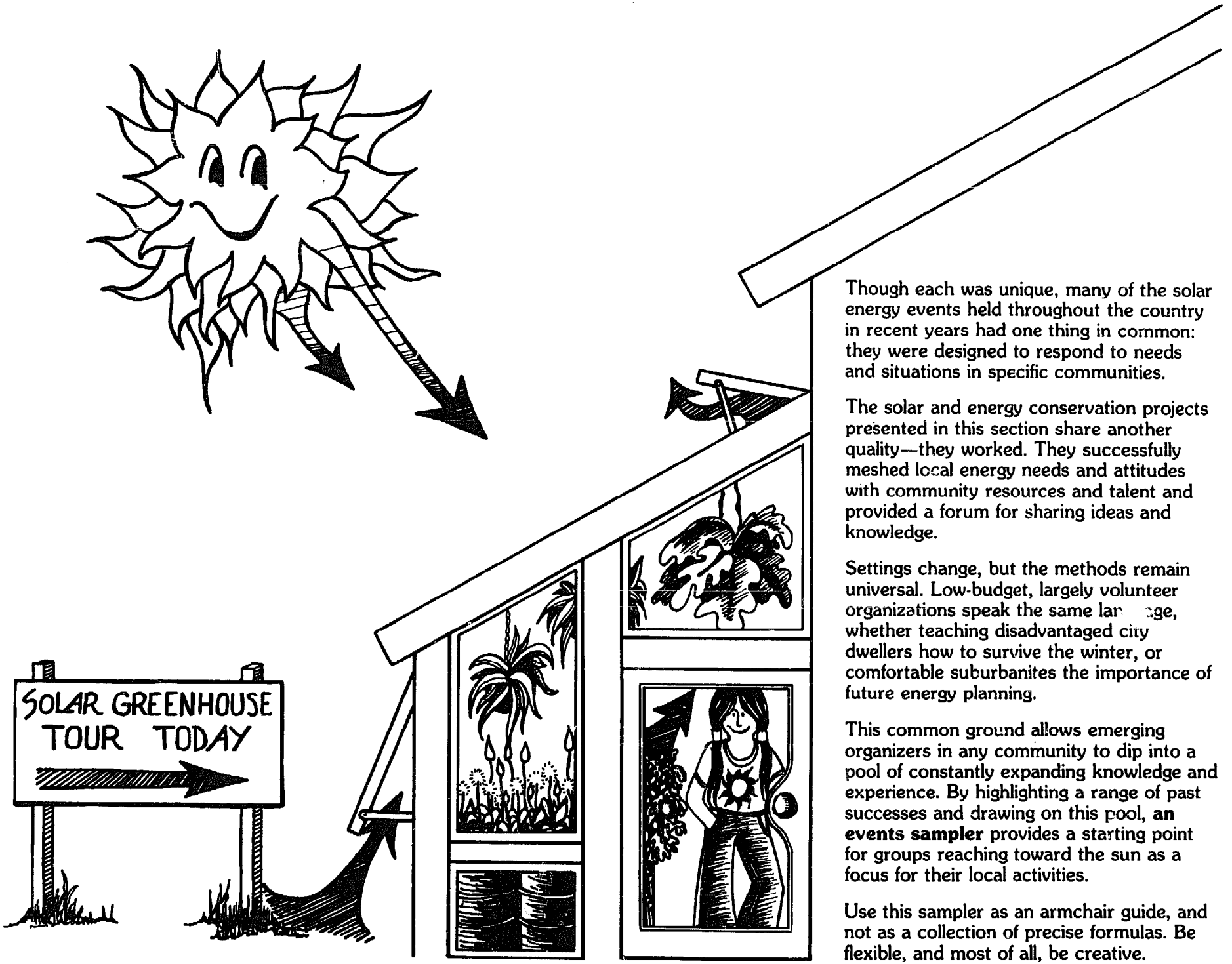
an events sampler











Though each was unique, many of the solar energy events held throughout the country in recent years had one thing in common: they were designed to respond to needs and situations in specific communities.

The solar and energy conservation projects presented in this section share another quality—they worked. They successfully meshed local energy needs and attitudes with community resources and talent and provided a forum for sharing ideas and knowledge.

Settings change, but the methods remain universal. Low-budget, largely volunteer organizations speak the same lan ge, whether teaching disadvantaged city dwellers how to survive the winter, or comfortable suburbanites the importance of future energy planning.

This common ground allows emerging organizers in any community to dip into a pool of constantly expanding knowledge and experience. By highlighting a range of past successes and drawing on this pool, **an events sampler** provides a starting point for groups reaching toward the sun as a focus for their local activities.

Use this sampler as an armchair guide, and not as a collection of precise formulas. Be flexible, and most of all, be creative.

a word about using this section

The first thing you might notice about this section is the conspicuous absence of some of the better known, large-scale solar events held over the past few years. There are certainly numerous conferences, fairs, and workshops that would have no trouble making the All-Stars of Solar Events that are not included here. The events you will "attend" on the following pages are good representatives of many events which have been held around the country—not necessarily perfect examples of flawless organizing processes.

In compiling a list of sample events to present here, the editorial team spoke with nearly 100 people involved in grassroots solar projects across the country. The weeding process was not an easy one. A number of excellent events were excluded because of a lack of sufficient documentation. In other instances, groups had disbanded or lost key members and simply did not have the resources to respond to our requests for information.

The editorial team never forgot the intended audience's ability to relate to the highlighted events: we have included a look at groups with grants or other ongoing funding and those without; those with paid staff and those without; those with government affiliation and those without. Most of the organizations, however, operated with limited or no funding, volunteer staff, and great outpourings of personal energy and commitment.

Events were chosen to represent a geographical variety as well. As can be imagined, some parts of the country have a head start on others and have been much more active to date. Inclusion of events in the Northwest and northeastern parts of the country debunk any myths that those areas are devoid of a solar conscience.

The narrowing-down process gave us 15 events which represent endless combinations of money, people, locale, purpose, and results. The brief narratives stress those aspects of the organizing process particularly well demonstrated in any one event. One group may have faltered in terms of pre-event registration but showed outstanding creativity in terms of publicity. Another may have been cited for its excellent fundraising techniques.

Using information provided by the original organizers, we developed narratives presenting key points of both the events and the processes and highlighted the failures as well as the successes.

The quotes sprinkled throughout the section are straight from the organizers' mouths. If you plan to structure an event around one presented here, use the contact information in **a guide to selected resources** to track down the individuals involved. If it's in your budget, you might consider supporting other groups with payments for their experience and expertise.

This section is designed to provide a stimulus, not a recipe book to be followed without deviation. After reading others' experiences, you may want to take ideas from a number of individual events and mold them to fit your own particular circumstances. This "Chinese menu" approach will start you on the creative process—enjoy!

presenting

. . . in order of appearance

seminars and conferences

ABC's of Passive: Seminar on Solar Planning and Construction
An evening presentation introduces the principles of mass and glass to an overflow audience of city officials, bankers, builders, and homeowners.

Save Our Neighborhood Mini-Conference
Urban apartment dwellers attend a Saturday morning conference and learn that they can help save the neighborhood through rehabilitation and save energy in the process.

fairs and fun

Energy Awareness Day
Exhibits and speakers at a one-day fair point out that changes in personal energy use habits can be profitable as well as painless.

The Children's Solar Hour
Kids learn about the power of the sun and burn up some of their own excess energy at a Saturday morning session.

Wood Heating Conference/Fair
Two days of speakers, workshops, contests, and fun demonstrate the pleasures of keeping the home fires burning.

Dress Up, Dial Down
A luncheon fashion show and bazaar emphasize warmth in wardrobe and diet for the fashion-conscious and conservation-minded.

Solar Energy Fair and Celebration
Two thousand Alaskans spend two days in sun celebration and learn that solar energy isn't just for the "Lower 49."

hands-on workshops

$aving Home Energy
Participants take caulk guns in hand to help low-income homeowners button up for winter in a weekend hands-on experience.

Solar Greenhouse W··rkshop
Hammer-wielding neighbors raise an attached solar greenhouse in two days, and Mainers discover the joys of year-round growing.

Solar Food Dryer Workshop
El Sol helps rural folks to grow their food and dry it, too, in two days of hands-on construction.

Solar Water Heater Workshop
At a two-day hands-on workshop, participants take away basic construction skills and leave behind solar water heaters ready for installation.

ongoing programs

Epoch B: Early Planning
Bold, visionary citizens set out on the first leg of a journey to sane urban living and take a turn toward wise energy use.

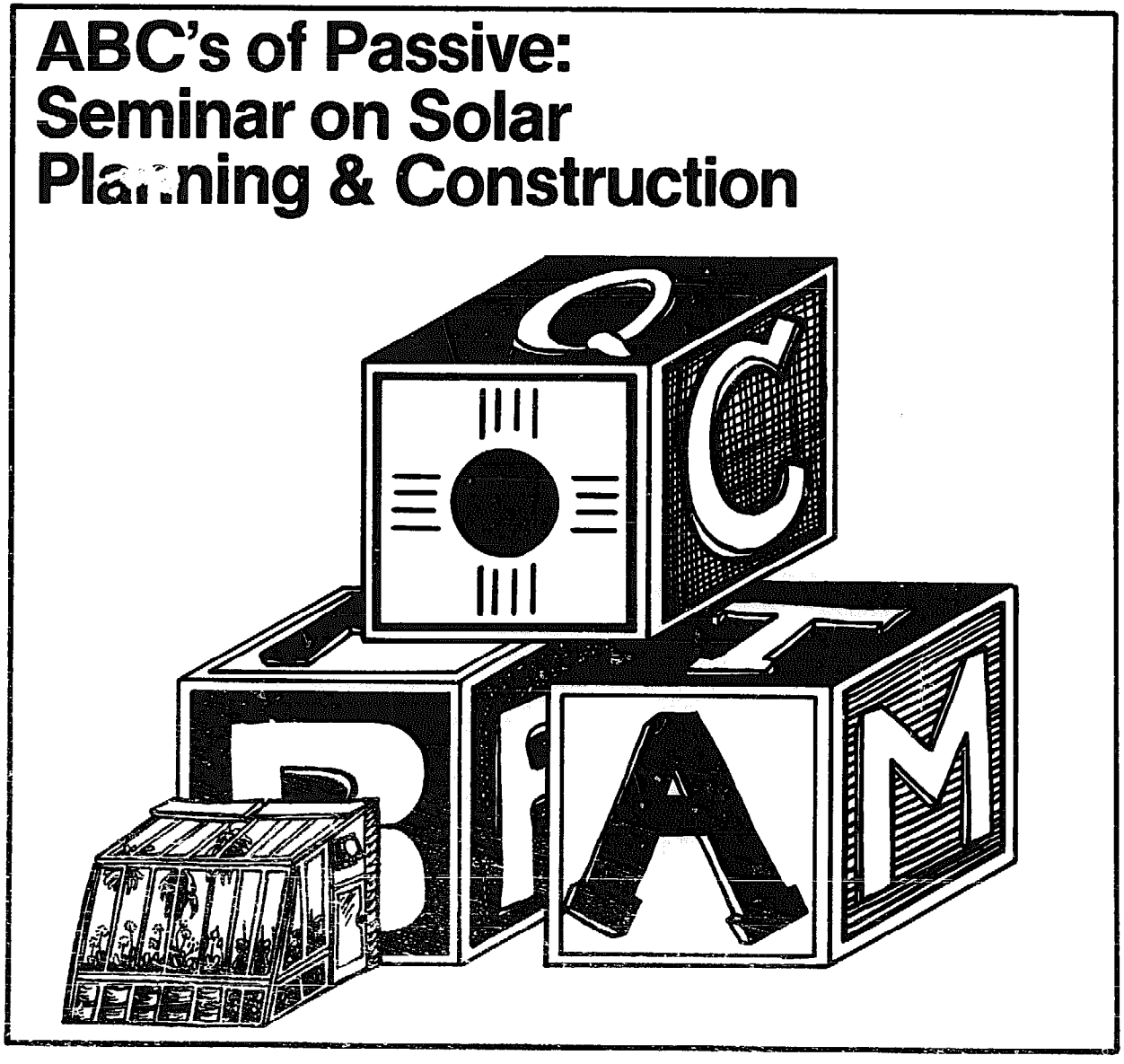
Future Power
A one-day workshop and followup energy fair allow residents a key role in mapping out hard path/soft path future energy journeys.

Toward A Solar Connecticut Via Legislative Action
Statewide town meetings encourage citizens to fight rising utility bills with voteworthy solar bills.

Small Farm Energy Project
Owners of small farms learn that the sun not only makes the crops grow, but dries 'em, fertilizes 'em, runs the tractor, and keeps the family warm.

ABC's of Passive: Seminar on Solar Planning and Construction

League of Women Voters
Los Alamos, New Mexico
Spring 1978



An evening presentation introduces the principles of mass and glass to an overflow audience of city officials, bankers, realtors, builders, and homeowners.

what made it happen

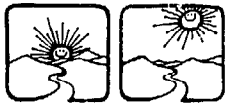
Organizers' sensitivity to local needs
Availability of high-quality speakers
Existing high level of interest
Well-coordinated advance work
One committee of five people
Two months of planning
Several hundred dollars from the U.S. Department of Energy (DOE) via state League of Women Voters
Overflow crowd of 170
Free admission

what happened

A followup presentation on recommended solar ordinances was requested by the City Council and county employees.

recommended for

Audience Type



Organization Type

The League of Women Voters (LWV) of Los Alamos, New Mexico, reached an important group of decisionmakers with a seminar on passive solar planning and construction.

Originally designed for county council and planning and zoning commission members, builders, bankers, and realtors, the program actually drew a larger attendance from the ranks of interested homeowners.

Invitations to 22 builders, 12 realtors, 23 financial institutions, and county officials produced an overflow crowd of 170 people. Notices in the League newsletter and local news releases attracted additional seminar attendees.

Largely due to the presence of Los Alamos Scientific Laboratory and the high level of interest in passive solar design throughout northern New Mexico, organizers attracted high-quality speakers to the seminar.

The success of the seminar prompted council members and county employees to request a second presentation in council chambers.

agenda

- Basics of Using Solar Energy

  The importance of correct siting, direct solar gain, Trombe walls, greenhouses
- Medium-Priced Passive Solar Homes

  Discussion by a local solar architect
- The Nation's First Solar Bank

  Testimonial by a Santa Fe banker whose active space heating system performed better than expected
- Economics of Solar Building

  Presentation by a former bank loan officer—included tips on claiming the state solar tax rebate
- Davis, California, Solar Ordinances

  Review by a speaker from Los Alamos Scientific Laboratory —included recommendations for similar ordinances in Los Alamos County
- Low-Cost Solar Greenhouses

  Presentation by solar greenhouse expert
- Question and Answer Session

Prior to the seminar, a League member interviewed area bankers to determine local banking attitudes toward financing of solar construction. Sample questions included:

> Would you give a preferential rate to a solar home builder?
>
> When you are looking at a financial statement about long-term commitments, do you take into account rising utility bills, especially with a utility that averages bills over a 12-month period?
>
> Since a solar home would typically have lower utility bills, is it possible to obtain a higher mortgage, making housing costs the same percentage of gross income?

Speakers were briefed at a potluck dinner before the seminar on the information gathered in the informal surveys. A direct result of the information exchange was a local credit union's willingness to begin considering utility payments when determining an individual's ability to handle a mortgage.

At the seminar, bankers received a copy of *Innovative Financing: Banks and Energy Conservation*, written by the Real Estate Research Corporation of Chicago for the U.S. Energy Research and Development Administration. Purchase of the books accounted for nearly $100 of the $220 budget.

Additional expenditures went for copying, postage, mileage, and dinner for speakers (much of it was donated). A U.S. Department of Energy grant given to the national League of Women Voters and passed on to the local group covered the costs of the evening seminar.

variations on the theme

- Target another specialty audience such as architects, legislators, lawyers.
- Focus on active solar systems instead of passive.
- Stress one particular item on the agenda for a more specialized seminar.
- Consider whether a different structure such as a panel, debate, or workshop session might be better suited to your audience.

for more information

The Food and Heat Producing Solar Greenhouse p. 102
Natural Solar Architecture p. 102
The Passive Solar Energy Book p. 102
The Solar Decision Book p. 101
Use Solar Daylight and Heat p. 140
New Mexico Passive Solar Buildings **(film)** p. 140

The League of Women Voters is a voluntary organization with 50 state chapters of men and women dedicated to promoting political responsibility through informed and active participation of citizens in government.

Save Our Neighborhood Mini-Conference

Tri-City Citizens Union for Progress
Newark, New Jersey
Winter 1978/79

Courtesy of Tri-City Citizens Union for Progress

Urban apartment dwellers attend a Saturday morning conference and learn that they can help save the neighborhood through rehabilitation and save energy in the process.

what made it happen

Tie-in to larger local concerns
Concern for neighborhood improvement
One large team of dedicated volunteers
One month of planning
One in-place paid coordinator
Ninety tenants in a 12-block area
Community Center with day-care services
Entertainment by local kids

what happened

People were turned on to the Citizens Union as a self-help outlet for assistance, and home improvement/weatherization was scheduled as the focus of a later hands-on workshop.

recommended for

Audience Type

Organization Type

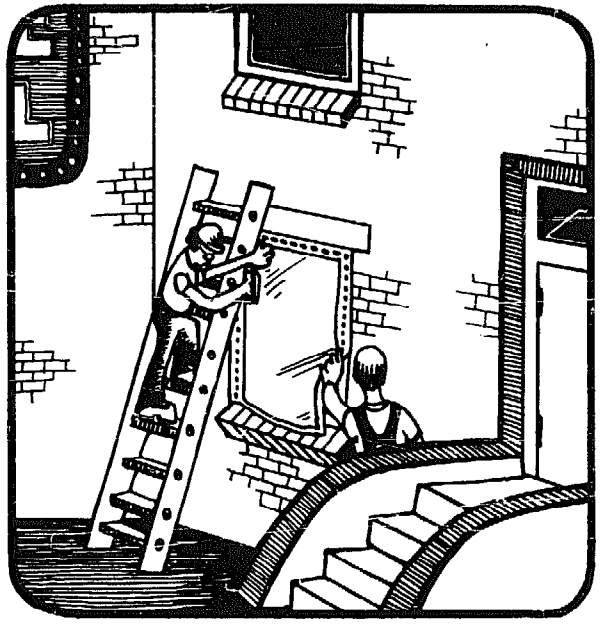
In urban core areas of the country, energy education is happening, but in an indirect way. In Newark, New Jersey, the Tri-City Citizens Union for Progress discovered one way to make inner city residents take notice of energy issues by combining them with concerns of crime, neighborhood dilapidation, and a dwindling commercial base.

The Union is in the business of renovating abandoned buildings in a 12-block area in Newark's West Ward. A multiservice community organization, the Union receives a variety of funds including rehabilitation monies from the Department of Housing and Urban Development. The Union also receives fees from managing cooperative apartment houses they have organized and from a handful of fundraising projects.

Through the efforts of a strongly committed volunteer force, 90 apartment dwellers and homeowners spent a Saturday morning at the Save Our Neighborhood Mini-Conference. They came to discuss the problems of crime, rundown buildings, dirty streets, and idle youth, and also received an introduction to energy conservation and the need for home weatherization.

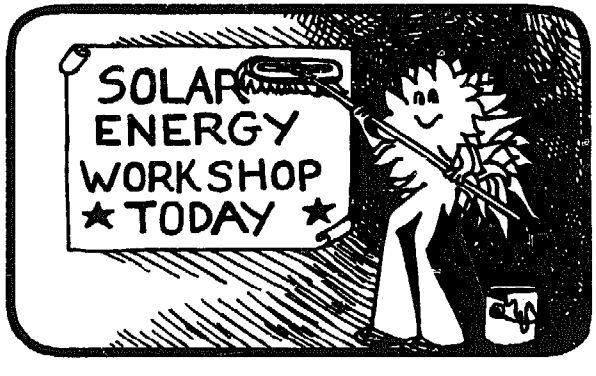
The group's rehabilitation director knew that energy conservation was low on the priority list of neighborhood issues although rehabilitation of housing is an important and ongoing concern. In order to drive home the conservation message, it was included on a program with issues that the residents considered more serious.

To build interest for the conference, volunteers distributed simple flyers to more than 7,000 residents throughout the 12-block area and followed up with phone calls or personal visits. Scheduling songs and



plays by local children as conference entertainment ensured attendance by many parents who otherwise might not have become involved.

Since the conference was one project of an existing organization, many necessary support services were available. No additional outlays were needed for office space, telephone, or supplies.



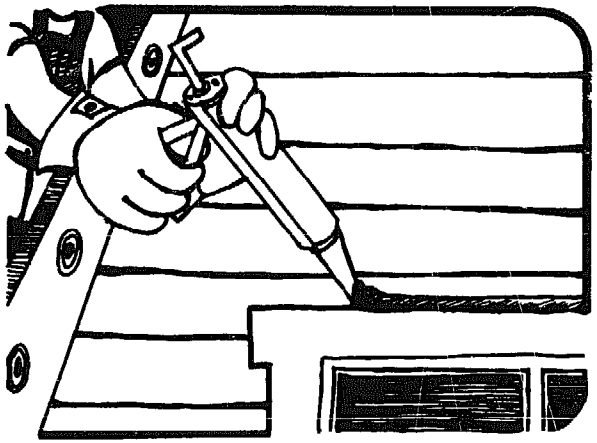
AGENDA

9:00 a.m.	Registration and Coffee
9:30a.m.-11:00a.m.	General Session
	Welcome
	Guest Speaker
	Citizens Union Report
11:00a.m.-12:30p.m.	Workshops
	Crime Prevention
	Home Ownership
	Youth Activities
	Home Improvement
	Neighborhood Beautification
	Business Improvement
12:30p.m.-1:30p.m.	Entertainment

Leaders of the home improvement section of the program covered energy conservation including discussions of exterior weatherization, caulking, insulation, storm windows, thermostats, and rehabilitation assistance programs available for homeowners.

As a followup to the conference, more detailed workshops on each of the agenda topics were held in area apartment buildings. Residents were informed by personal visits and phone calls and notices posted throughout the neighborhood.

The organization provided materials and tools at six hands-on weatherization/home improvement workshops held in apartments



owned by the city of Newark and managed by the Union. Tenants in buildings owned by absentee owners and homeowners wanting to upgrade their units participated by purchasing materials—the Union provided the day's free labor. Homeowners who couldn't afford supplies were referred to appropriate assistance programs.

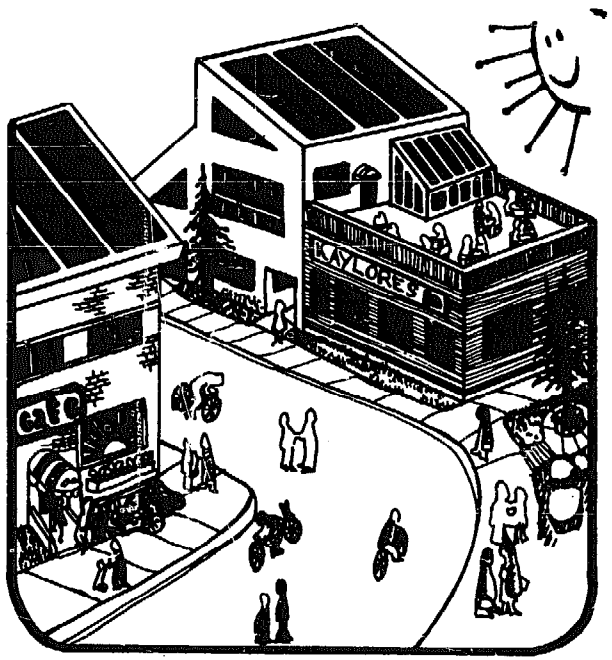
Workshop attendees put into action the weatherization techniques discussed at the earlier conference and developed or added to their home improvement skills.

Attendance at the workshops was small: six to ten people attended each.

> "People have to first look at how to survive in a tough part of the city. Then, maybe they will think about reducing the amount of energy they are using. It's hard to think about putting out money to improve your home if you don't have it."

variations on the theme

- Attract renters to the conference by focusing on specific ways they can save energy without investing too much time or money.
- Gear the conference to owners of small businesses in the area.
- Broaden your agenda to cover community-scale solar or wind projects. As a followup, build one.
- Focus the conference on how rising energy costs impact family pocketbooks, and provide information on sources of assistance for homeowners.



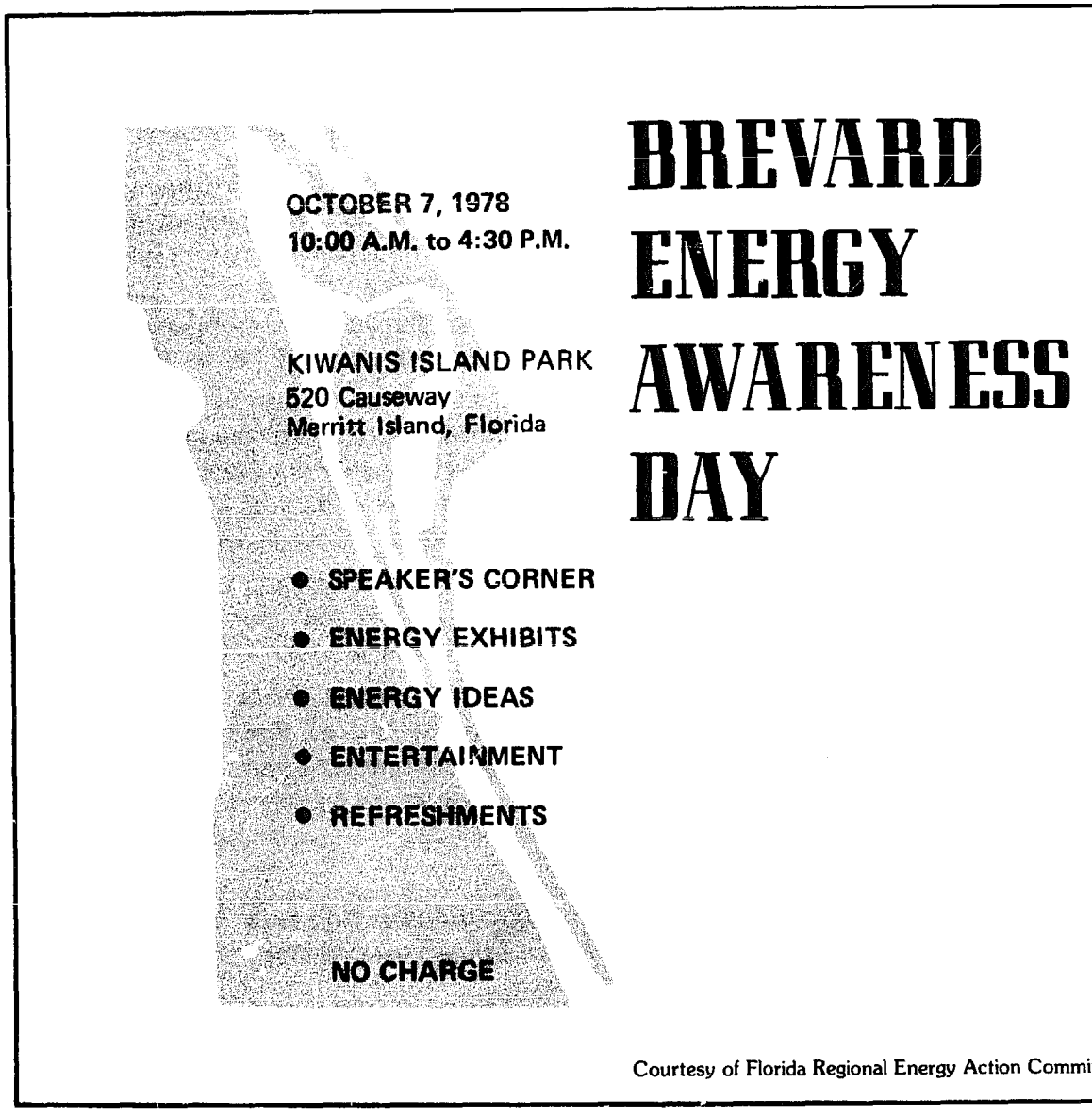
for more information

The Fuel Savers p. 99
The Home Energy How-To p. 106
In the Bank or Up the Chimney p. 99
Infiltration and Ways to Beat It **(slides)** p.111
One Way to Weatherization: A C.A.P. in the Gap **(film)** p. 111

Tri-City Citizens Union for Progress is a multiservice community organization involved in renovating abandoned buildings and managing cooperative apartment houses in Newark, New Jersey.

Energy Awareness Day

Regional Energy Action Committee VI
Brevard, Florida
Fall 1978



Courtesy of Florida Regional Energy Action Committee VI

Exhibits and speakers at a one-day fair point out that changes in personal energy use habits can be profitable as well as painless.

what made it happen

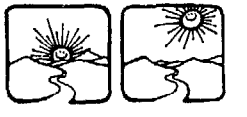
One person's super-awareness of wasteful energy habits
Well thought-out publicity
One very persuasive coordinator
A seven-member core group
Three to four months of planning
A $400 state energy mini-grant
Many donations of in-kind support
Free admission
Nearly 1,000 attendees

what happened

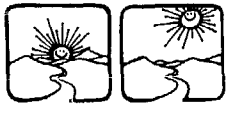
A state-appointed advisory group became an action group, providing impetus for future cooperative projects.

recommended for

Audience Type

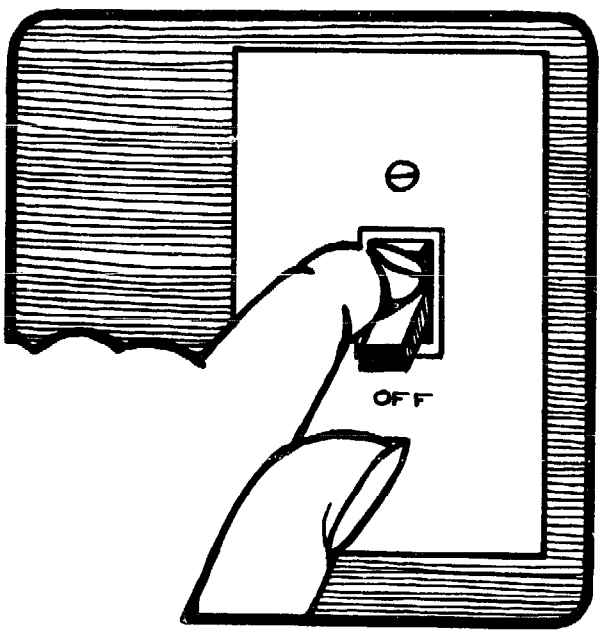


Organization Type



The idea for an energy fair in Brevard, Florida, was actually born in Europe, where a vacationing American saw the energy wastefulness of her own country in proper perspective. She felt that Americans, in many instances, were even unaware that products they used helped to accelerate the depletion of resources that could never be replaced.

Upon her return, these ideas were discussed with fellow members of the Florida Regional Energy Action Committee VI (REAC VI), who decided to put on an Energy Awareness Fair. The committee's hope was that bringing citizens together with industry representatives, government officials, and professional organizations would stimulate an exchange of information on energy use, conservation, and alternatives.



Seven members of REAC became the core planners of the fair, organizing around the principle that, "If you get an awareness started in a subtle way, people can think of conservation, and not really be forced to."

The committee succeeded in involving a large number of exhibitors and participants, linking the Department of Energy and Florida State Energy Office with the Library of Congress, Patrick Air Force Base Civil Engineers, and the Florida Solar Energy Center. Also participating were the Florida Power and Light Company, NASA, Boy Scouts and Girl Scouts, Women of the Moose, Brevard County Commissioners, and a national fastfood chain, to name but a few.

One unique exhibitor from a stock brokerage firm talked about the potential for investment in small solar- and energy conservation-related businesses. Although much of the discussion and advice was cautious, it represented a frontier idea about the economic potential available for the new investor.

A small budget was met with a $400 mini-grant from the State Energy Office, but the group's enthusiasm led them to begin planning the affair before the money was committed. Without the grant, it's likely the fair would still have happened, although not as quickly. Even with the funds, arrangements for contributions of time and goods were made whenever possible.

Publicity was extensive but not merely by accident. A great deal of early footwork went into contacting the many media outlets in the area, explaining the nature of the fair and asking for support. These efforts brought more than adequate news coverage.

The committee placed announcements in newsletters of various organizations and requested that announcements be made at events preceding the fair. The word was spread at the Chamber of Commerce monthly breakfast meeting, a scout meeting, and a gathering of local civic leaders.

Although organizers estimated attendance of nearly 1,000, turnout was somewhat less than hoped for. A lack of public understanding and ability to relate to the energy problem were cited.

> "People should begin to understand that national energy consumption can be greatly reduced by changes in daily personal habits, and rather than being a painful experience, can make good sense both economically and psychologically."

To achieve optimum public involvement, the committee arranged a day with something for everyone. The Jaycees provided hot dogs

and soft drinks, the Women of the Moose provided baked goods, and a fast-food chain provided free orange drink. All refreshments were free, as was admission to the fair.

A Speakers' Corner opened with a welcome by a member of the Brevard County Commissioners and concluded with a 10-mile run by the Space Coast Runners. A Kennedy Space Center employee discussed "Energy Conservation: New Resources at NASA Facilities."

The Speakers' Corner then served as the site for a puppet show, a Cub Scout skit entitled "Let's Pretend We Have No Oil," and performances by two local bands. A representative of the Library of Congress presented a discussion of energy conservation.

Skit Outline for "Let's Pretend We Have No Oil"

A group of children are sitting in a room which contains several pieces of furniture and various objects. The scene opens as one of them says, "Gee, oil surely is wonderful, isn't it? One smart-aleck replies, "Oh, it's not so much. We could eaily get along without it." Another one says, "Well, you'd have a long walk home tonight if there were no gasoline." The smart-aleck retorts, "Yeah, that's right, but that's about the only thing that would be hard to get along without."

The children chatter; finally one says, "Let's make a game of this. Everyone look around and see how many things in this room would have to go if we had no oil." We'll take turns and when we name an object, we'll take it out of here. I'll start. First, the paintings on the wall — they'll have to go!"

The children continue removing things because nearly everything either has oil in its makeup or is made of machinery that could not be used without lubricants.

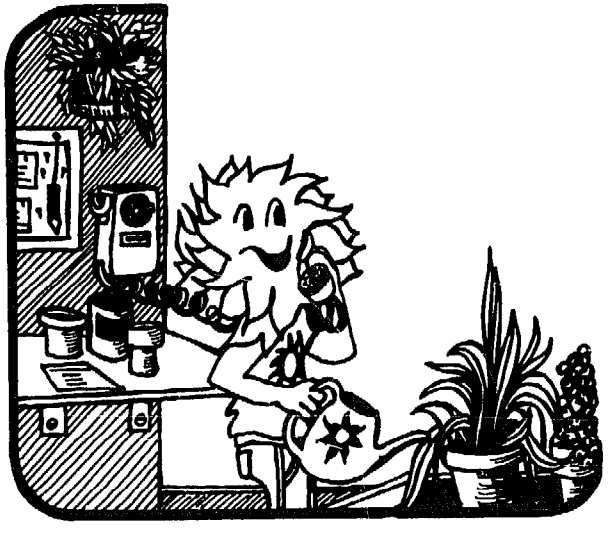
The skit closes as the children run off the stage realizing that much of their clothing is made from oil-based fabrics.

*Courtesy of Brevard County Cub Scout Pack 325

Throughout the day, the public was invited to use the Corner to express views on energy-related issues. Organizers found the idea was good, but participation lagged since most attendees were unwilling to get up and soapbox. A few strategically placed "spontaneous" speakers might have set the ball rolling.

variations on the theme

- Change the setting of the fair. Try a shopping mall, college campus, neighborhood park, or closed-to-traffic city block.
- Tag onto an already-planned event, such as a home and garden show, holiday event, or school program.
- Zero in on a particular aspect of energy. Consider solar applications, use of wind power, alternative transportation systems, or appropriate technology.
- Adapt the county fair theme and present awards for the best solar-cooked or solar-dried foods.



for more information

The Lifestyle Index p. 107
Full Circle **(slides)** p. 122
Learning About Solar Energy **(film)** p. 123
Sun Beam Solution **(film)** p. 146

The Florida Regional Energy Action Committee is a group of volunteers appointed by the Secretary of the Department of Administration. REAC functions in an informal advisory and assistance capacity to the State Energy Office of the Department of Administration.

The Children's Solar Hour

New Mexico Solar Energy Association
Santa Fe, New Mexico
Winter 1979

Kids learn about the power of the sun and burn up some of their own excess energy at a Saturday morning session.

what made it happen

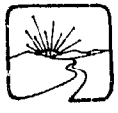
An existing library program
A captive audience
One fun-loving speaker from the local solar energy association
Solar-cooked hot dogs
Practical demonstrations
Twenty eager-to-learn kids

what happened

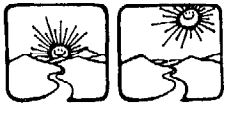
A group of young people learned basic solar energy principles through experiences in sight, sound, and touch.

recommended for

Audience Type



Organization Type



The New Mexico Solar Energy Association (NMSEA) used a program of film, discussion, and outdoor exploration of the sun's heat to transform a Saturday morning story hour at the Santa Fe Public Library into a fun-packed Children's Solar Hour. Enthusiasm carried the program over two hours, and a number of older "children" arriving to pick up their youngsters found themselves joining in the fun.

NMSEA approached the local library with the idea as part of its development of programs aimed at young people. The two staff people responsible for developing fun and effective ways of teaching kids about solar energy saw the idea as simple, inexpensive, and having great appeal for both kids and organizers.

The Santa Fe library provided a facility, a ready-made audience, and publicity for the event, keeping NMSEA costs and organizing time to a bare minimum. In turn, NMSEA provided the speaker, a good film to kick off the program, informational handouts, and various pieces of solar equipment: a fresnel lens, a parabolic solar cooker, a Stirling engine, and a cardboard and foil solar oven.

About 20 youngsters attended the program, mostly "regulars" accustomed to participating in the weekly Saturday library hour. They first watched an upbeat film, *Build Your Own Greenhouse—Solar Style,* and saw the fun involved in building a solar greenhouse in the tradition of an old-fashioned barn raising. Banjo music and the film's lighthearted style set the tone for the remainder of the program.

Following the film, the speaker—chosen not only for a knowledge of solar principles but for an ability to develop a good rapport with children—led a discussion on the movie. Questions were posed: What direction did the glazed wall of the greenhouse face? What is glazing and what are its uses? Why were barrels of water used in the greenhouse?

The questions and answers—often quite creative and enlightening—rolled along. Throughout this portion of the program, a Stirling engine, which uses concentrated solar energy to create heat and drive pistons, stood nearby to spark the children's interest.

The youngsters moved outside to get an even closer look at the power of the sun. Absorption principles were demonstrated by dipping fingers into cans of water of varying temperatures: differences in hot and cold depended on whether the can was painted black or white. Hot dogs sizzling on the parabolic cooker became refreshments; a styrofoam ice chest was used to introduce the kids to insulation.

The most popular item was a fresnel lens, which concentrates sunlight much like a magnifying glass on a sunny day. Youngsters (and a number of parents) were entranced as they saw paper, leaves, and cloth reduced to flame by the sun's rays. (Of course, all children were cautioned of the potential dangers of the high temperatures being produced.)

The success of the program has prompted further discussion between NMSEA and the library; an ongoing series of Solar Hours is being considered.

> "It can be a real involving thing. It gives parents a chance to be dumb and let the kids ask the questions."

variations on the theme

- Develop a children's solar program that travels to local schools.
- Use marionettes, hand puppets, or other theatrical devices to interest young people in solar concepts.
- Hook up with existing youth groups or community organizations and have them incorporate solar into their programs.
- Build a solar playhouse for a local school or public playground. Use it as a location for other projects.

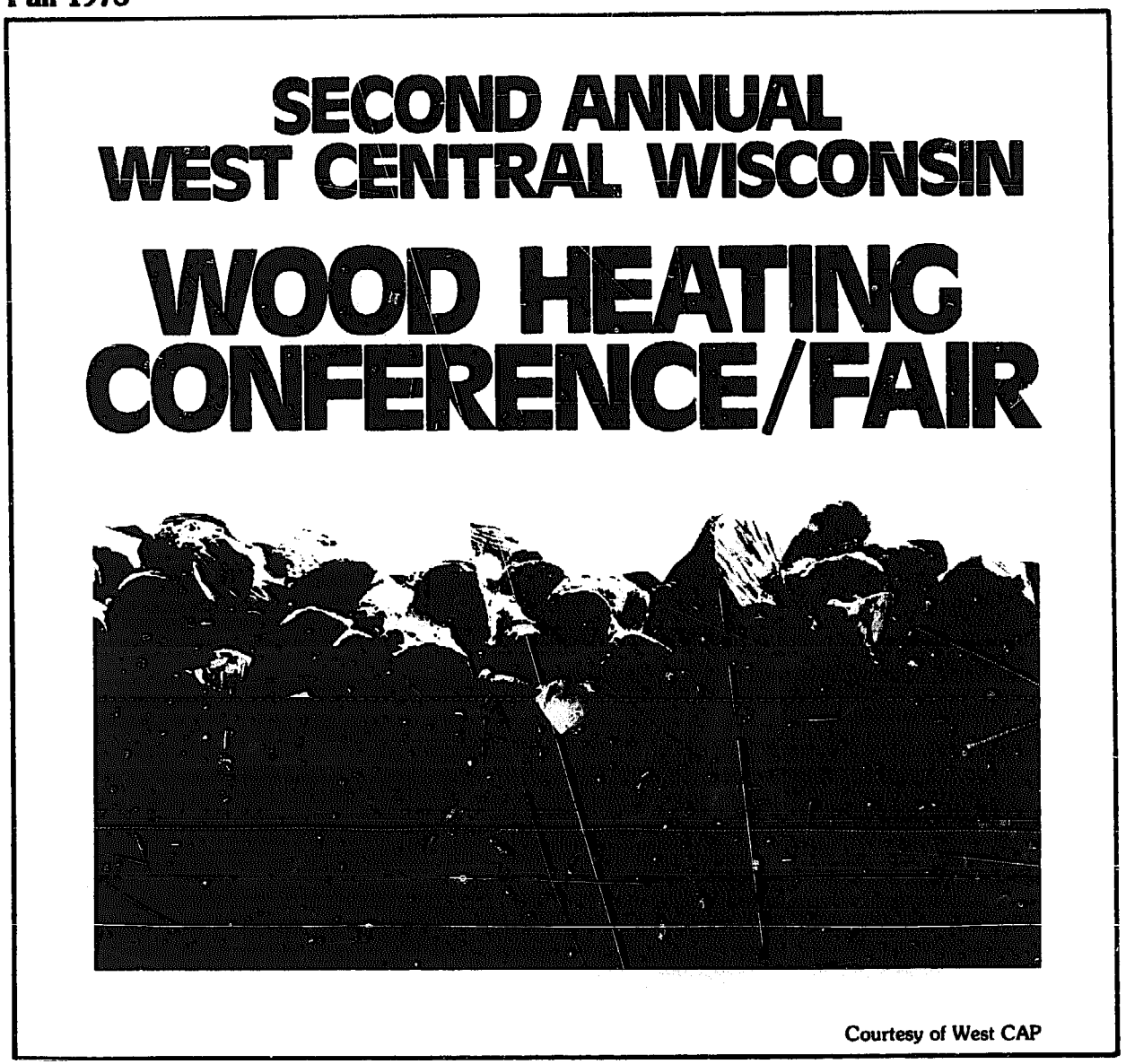
for more information

Solar Science Projects p. 120
Tilly's Catch-A-Sunbeam Coloring Book p. 121
How to Make a Solar Heater **(film)** p. 132

The New Mexico Solar Energy Association (NMSEA), a regional chapter of the American Section/International Solar Energy Society, is a membership organization funded by numerous grants and donations. NMSEA offers information and technical assistance programs.

Wood Heating Conference/Fair

West Central Community/Action Agency (West CAP)
University of Wisconsin Extension
Oasis 2000
Rice Lake, Wisconsin
Fall 1978



Courtesy of West CAP

Two days of speakers, workshops, contests, and fun demonstrate the pleasures of keeping the home fires burning.

what made it happen

One very well-known speaker
A proper mix of the fun and serious
One paid staff
Two to three months of planning
Free admission
Eighty enthusiastic exhibitors who paid for display space
Two thousand rural and small-town attendees

what happened

People put more stock in wood as an alternative fuel; retailers of wood products increased sales.

recommended for

Audience Type

Organization Type

Over 3,000 people attended the West Central Wisconsin Wood Heating Conference/Fair in 1977; 2,000 made it to the second fair in September 1978 despite poor weather. Cosponsors of the fair were the West Central Wisconsin Community Action Agency (West CAP); the University of Wisconsin Extension, Barron County Office; and Oasis 2000, a grassroots organization dedicated to preserving and enhancing the quality of life.

Organizers saw that in a region where wood is available and affordable, and conventional fuel costs conversely high, people are ready to convert to new ways if they have enough information on what is available and at what cost to them.

Prizes for contests were donated by local businesses including hardware stores, plumbing and heating contractors, woodburning stove outlets, the local bank, and the local garage. A feed mill, farming supply stores, an ice cream parlor, and a newspaper office also contributed prizes.

Exhibitors of woodburning-related products or services were most willing to display their offerings and eagerly purchased display spaces at $40 each. Exhibitors' fees covered expenses of nearly $3,000, including the fee of a nationally known wood energy expert.

Standard publicity outlets were used to draw people from mainly rural areas and small towns. Good relations were established with local papers and broadcast media; news releases also went to adjacent communities. Posters were used extensively. Radio stations used spot announcements and invited organizers for interviews on talk or news programs.

The West CAP office provided staff, using existing skills to find effective ways to reach people with needed information. *Except for this paid staff time, the exhibitors' fees paid for the entire event.*

speeches

Safety with Metalbestos Chimneys and Chimney Sweeping
Performance and Selection of Wood Heat Equipment
Safety in Wood Heat: Design, Function, and Operation of Wood Heating Equipment
The Basics of Wood

workshops

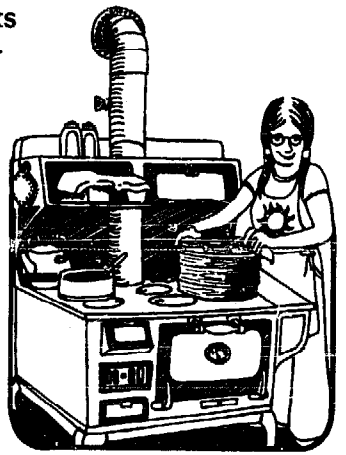
Efficient Use of Firewood for Home Heat
Installation and Maintenance of Wood Heat Equipment
Solar/Wood: The No-Fossil Fuel House
Heat Loss, Conservation
Fire Prevention
West CAP's Wood Stove Program (a no-interest loan program)

contests

Wood Chopping The first contestant to quarter four wood blocks using a 3-1/2 lb. ax and shout "Done!" is the winner.
Crosscut Saw Teams race the clock while slicing a standard oak log.
Power Saw Participants are clocked as they take three cuts with saws sharpened to manufacturers' specifications.
Baking on a Woodstove Entries are judged on appearance, taste, texture, nutritional value, and creativity.

special events

Sawdust-Fired Kiln Demonstrations, Touring Musicians



variations on the theme

- Demonstrate the many ways to combine woodburning with other alternative fuels. Consider wood and solar, wood and wind, wood and water.
- Use the fair as a kickoff point for forming woodlot cooperatives or classes in woodlot management.
- Package the fair as a traveling show for transport to rural communities.
- Organize a fair around contests. Include solar hot air balloon races, solar collector heat-up races, solar cooker egg fry contests, and a solar gourmet cookoff.

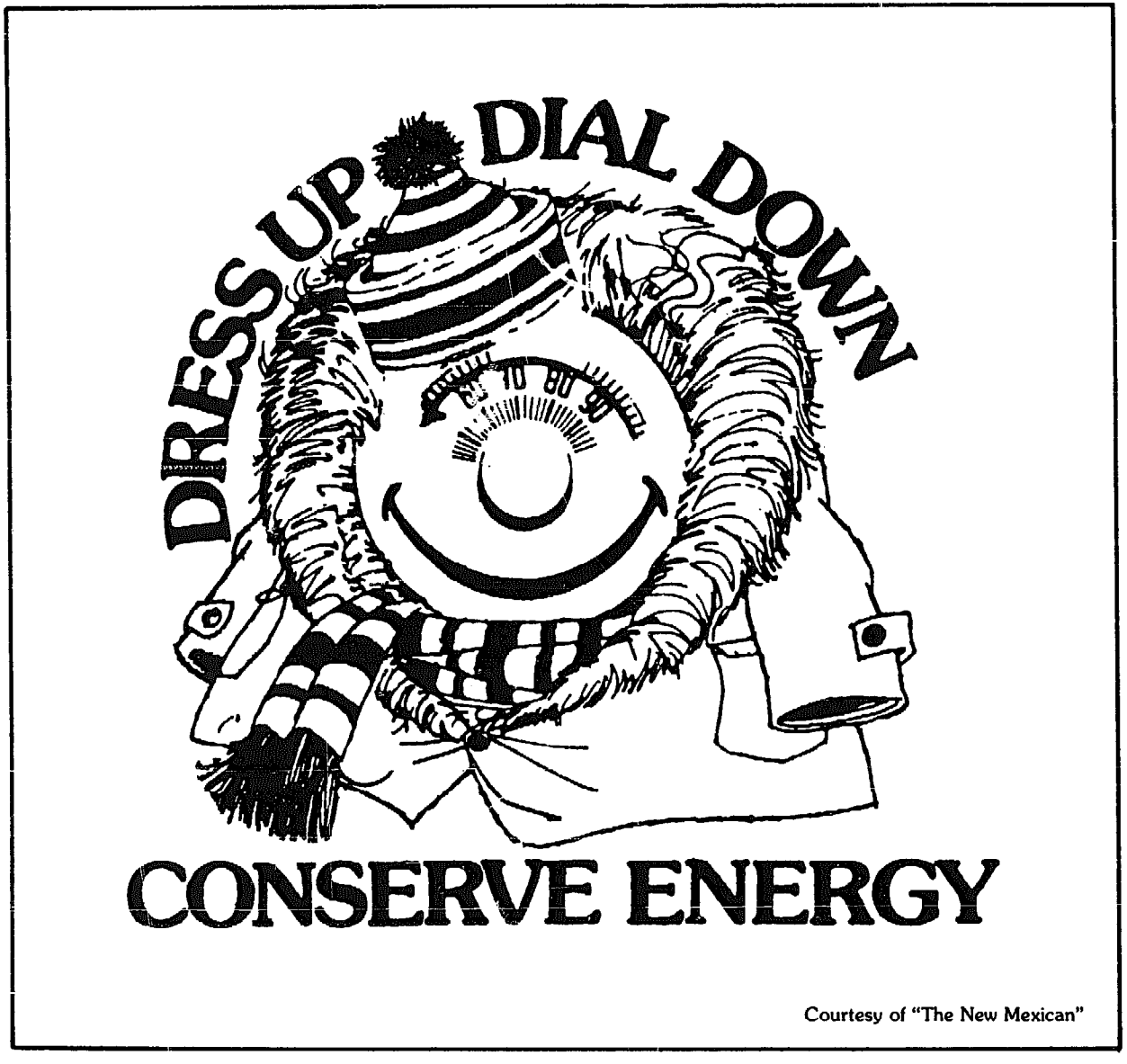
for more information

The New, Improved Wood Heat p. 149
The Woodburner's Encyclopedia p. 103
Wood Energy p. 149

West CAP, the West Central Wisconsin Community Action Agency, is a regional community action agency which receives a variety of state and local funding to tackle the problems of poor housing and high energy costs with a comprehensive Housing/Energy Program.

Dress Up, Dial Down

League of Women Voters
Santa Fe, New Mexico
Winter 1977



Courtesy of "The New Mexican"

A luncheon fashion show and bazaar emphasize warmth in wardrobe and diet for the fashion-conscious and conservation-minded.

what made it happen

A handful of creative, fashion-minded neighbors
An overwhelming response from local media and retailers
Ten energetic organizers
Two and one-half months of planning
One grant of $56
Over 130 attendees
Admission of $3.75 for lunch, bazaar, fashion show
One small city of mixed income levels

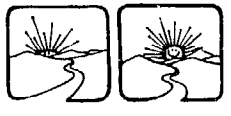
what happened

Clothes-buying habits shifted after attendees learned the wisdom in layering clothing, eating hearty, and turning down thermostats.

recommended for

Audience Type

Organization Type



The Santa Fe, New Mexico, League of Women Voters (LWV) took a novel approach to energy conservation with a "Dress Up, Dial Down" fashion show as part of a total public awareness campaign. The League, on the heels of a year's study of energy issues, chose the lighthearted method to convince neighbors of the wisdom in dressing warmly and keeping thermostats low.

The only mailed notice of the fashion show was included in the League's regular newsletter which saved the committee the cost of postage and printing. A hall for the show was free, food was donated, and supplies and refreshments were covered by the $3.75 price for the lunch. A grant of $56 from the state League covered the costs of a professional photographer hired to document the event. Close cooperation with media and support from local retailers were keys to the success of the program.

"The New Mexican," the local daily newspaper, designed a regular "Dress Up, Dial Down" column for use before and after the show. The column included information on the event, local advertisements highlighting conservation and weatherization materials and cold weather clothing, and a series of articles on various aspects of energy conservation. A special feature in the "Family Living" section of the paper included photos and articles with energy-saving tips to help residents reduce fuel bills and stay comfortable throughout the winter.

League members gathered more than 80 pieces of homemade or retail clothing for modeling. A narrator discussed layering, fabric types, heat loss around the head, foot coverings, and clothing that "breathed" and worked well for physical activity.

A school teacher whose classroom temperature varied from 55° to 90°F during the day demonstrated how her entire work wardrobe was geared to layering. A woman favoring loose clothing presented a variety of caftans and warming accessories.

Every style of long underwear available in Santa Fe was displayed on 50 feet of clothesline along with favorite pieces of clothing with historic value. A bazaar featured countless homemade items designed for warmth.

Over 130 people attended the fashion show and enjoyed a homemade soup and bread lunch planned for high energy and inner warmth.

Tangible results of the project are hard to measure, although League members report that response has been outstanding. Attendees reported they had shifted clothes-buying habits as a result of the fashion show, and a summer show on the theme of "Dress Down, Dial Up" is being considered.

> "We're using lots of energy—people energy—to persuade ourselves and others that it's a good idea to dress warmly, keep our buildings cooler, and in the process, conserve fuel for future use."

variations on the theme

- Highlight alternatives to long-distance summer travel and energy-consuming vacation activities. Stress close-to-home, energy-conserving holidays.
- Give classes in energy-conserving cooking for all seasons. Stress foods and drinks that use little energy to prepare, but provide lots.
- Work with local fabric stores to develop hands-on sessions for making energy-conscious clothing.
- Hold a design/interior decorating seminar and discuss energy-conserving fashions for the home. Include a home tour to see local examples.

for more information

547 Easy Ways to Save Energy in Your Home p. 99
The Household Energy Game p. 106
The Sun Day Press Handbook p. 104

The League of Women Voters is a voluntary organization with 50 state chapters of men and women dedicated to promoting political responsibility through informed and active participation of citizens in government.

Solar Energy Fair and Celebration

Alaska Center for the Environment
Anchorage, Alaska
Spring 1978

Courtesy of Alaska Center for the Environment

Two thousand Alaskans spend two days in sun celebration and learn that solar energy isn't just for the "Lower 49."

what made it happen

Effective networking
Heavy media coverage
Professional quality exhibits
Political support at various levels
Seven weeks of planning
One full-time organizer; four core volunteers
One paid fair coordinator for last three weeks
A $1,000 Sun Day grant
More than $5,000 in local grants
Over 2,000 attendees

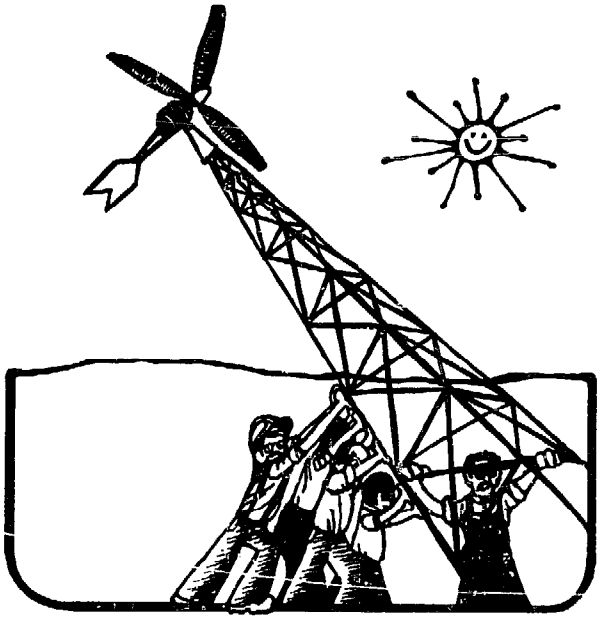
what happened

Demonstrations and exhibits helped to dispel the myth that solar energy is useless in arctic climates.

recommended for

Audience Type

Organization Type



The Sun Day Solar Energy Fair was held on the Anchorage Park Strip May 5-6, 1978. Alternative energy exhibits, demonstrations, and talks provided substance; films, music, folkdancing, mime, and improvisational theater lent a circus-like atmosphere, as did the kids' Fantasy Factory.

Graphic illustrations of basic energy conservation and passive solar design concepts were worth a million words. An architectural design clinic conducted by local American Institute of Architects (AIA) members was by far the most effective educational aspect of the fair; even the vinyl covering of the design clinic space provided a warming greenhouse effect.

Lectures on wind power, solar design, and alternative lifestyles made possible by these technologies were heard in local churches and were taped for later distribution by the Alaska Center for the Environment (ACE).

Volunteers at a centrally located information booth helped answer questions with information supplied free by the National Sun Day Committee, National Solar Heating and Cooling Information Center, and Friends of the Earth.

Exhibits included photovoltaic panels supplied by the Bureau of Land Management (BLM) and Department of Energy (DOE) and now in use in a remote part of Alaska.

The BLM also provided a tower for mounting the 750-watt wind generator that belonged to the alternative energy class at a local high school. Ten strong bodies thrust the 28-foot tower into place and lifted the generator on top, demonstrating the importance of cooperation and human involvement in alternative lifestyles.

> "The Sun Day Solar Energy Fair was both a celebration of Brother Sun and an educational vehicle for the Alaskan public. Our goal was to demonstrate the range of possibilities in appropriate technology here in the state and the changes in lifestyles that those possibilities offer."

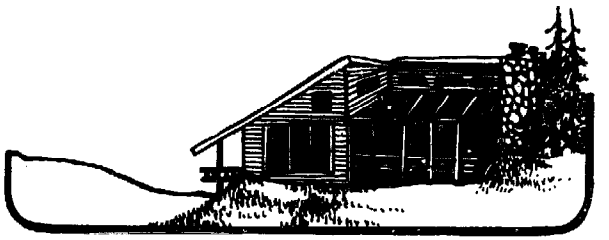
A Comprehensive Employment and Training Act (CETA) contract with the Alaska Center for the Environment (ACE) financed a staff person to carry out environmental education activities for the Center. She became the driving force behind the fair.

Six members of a volunteer organizing committee each took on some part of the fair. Consistent efforts to contact others for support, endless telephone calls, and continuous followup by the coordinator turned the process into a highly successful undertaking.

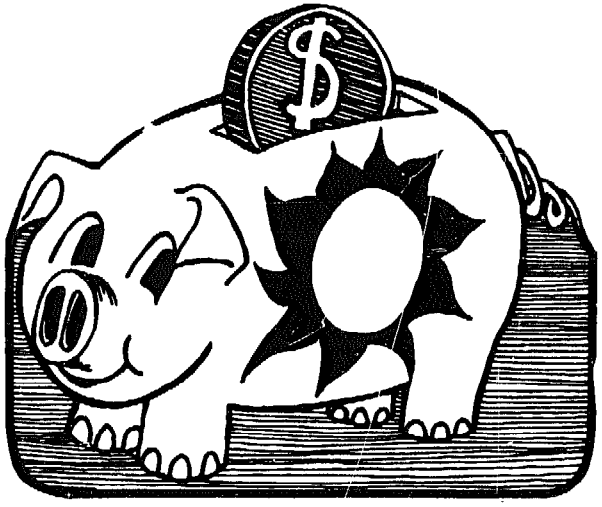
Invaluable assistance in promoting the fair was given by the National Sun Day Committee, which provided high-quality audio and video Public Service Announcements. Local radio and TV stations pitched in by dubbing local bylines onto the national masters and making copies for distribution. A supportive Senator also produced a Public Service Announcement at no cost.

Even with these benefits, promotion became such a massive job that during the final weeks the CETA staffer took over these duties full time and hired someone else as overall fair coordinator. Ultimately, media coverage was responsible for the fair's large turnout.

> "The media loved us . . . we encouraged their appetite at every opportunity. Media coverage above all else is probably responsible for our fine turnout."



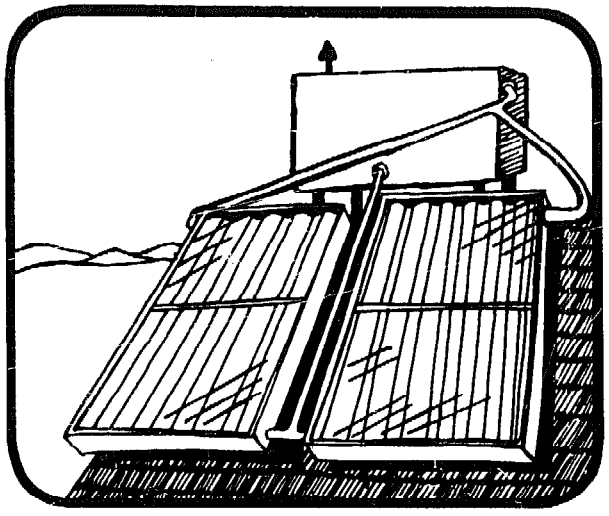
As usual, budget was an ongoing concern. With the $1,000 Sun Day grant provided by DOE and distributed by Solar Action, a contract was let for construction of a parabolic water heater display. Solar air and water collectors were built with materials donated by area businesses. The water heater and the collectors were later displayed at fairs throughout the state as part of the state's traveling energy show.



A $5,000 grant was also received from the Alaska Humanities Forum (National Endowment for the Humanities) and covered three weeks salary for a fair coordinator, printing, telephone, entertainment, portable toilets, sound system, and materials for the fair site.

As the scope of the event grew, so did the need to spend money. Many services were negotiated: state troopers provided free security, which, in turn, brought the insurance premium down by 40 percent.

Organizers noted that much-needed signs ranked at the top of the list of items cut



because of budgetary constraints and never quite covered by volunteer energy.

Over the two days, more than 2,000 persons attended the fair. Although it was a respectable turnout, the particularly cold and wet weather kept many visitors from spending as much time as the organizers had hoped.

A surprising number of attendees came from outside of the immediate Anchorage area—some from communities over 100 miles away. Rural residents expressed a keen interest in technologies that would allow them to continue self-sufficient lifestyles. Many Anchorageites, however, seemed to have less awareness of the potential for alternate sources of energy.

A tangible outcome of the fair was the publication and distribution by ACE of a compilation of available appropriate technology resources and data for Alaskans. Harder to measure, yet much more important, are the intangible effects—people's newly gained perceptions of what they can do for themselves in changing old energy habits and turning to new energy sources.

variations on the theme

- Pick a particular aspect of solar energy to emphasize, such as solar greenhouses and cold-weather gardening.
- Use the fair as a fundraiser by including a concert or performance by a well-known celebrity.
- Target your fair exhibits and demonstrations to people living in remote or rural areas where conventional energy sources are not easily available.

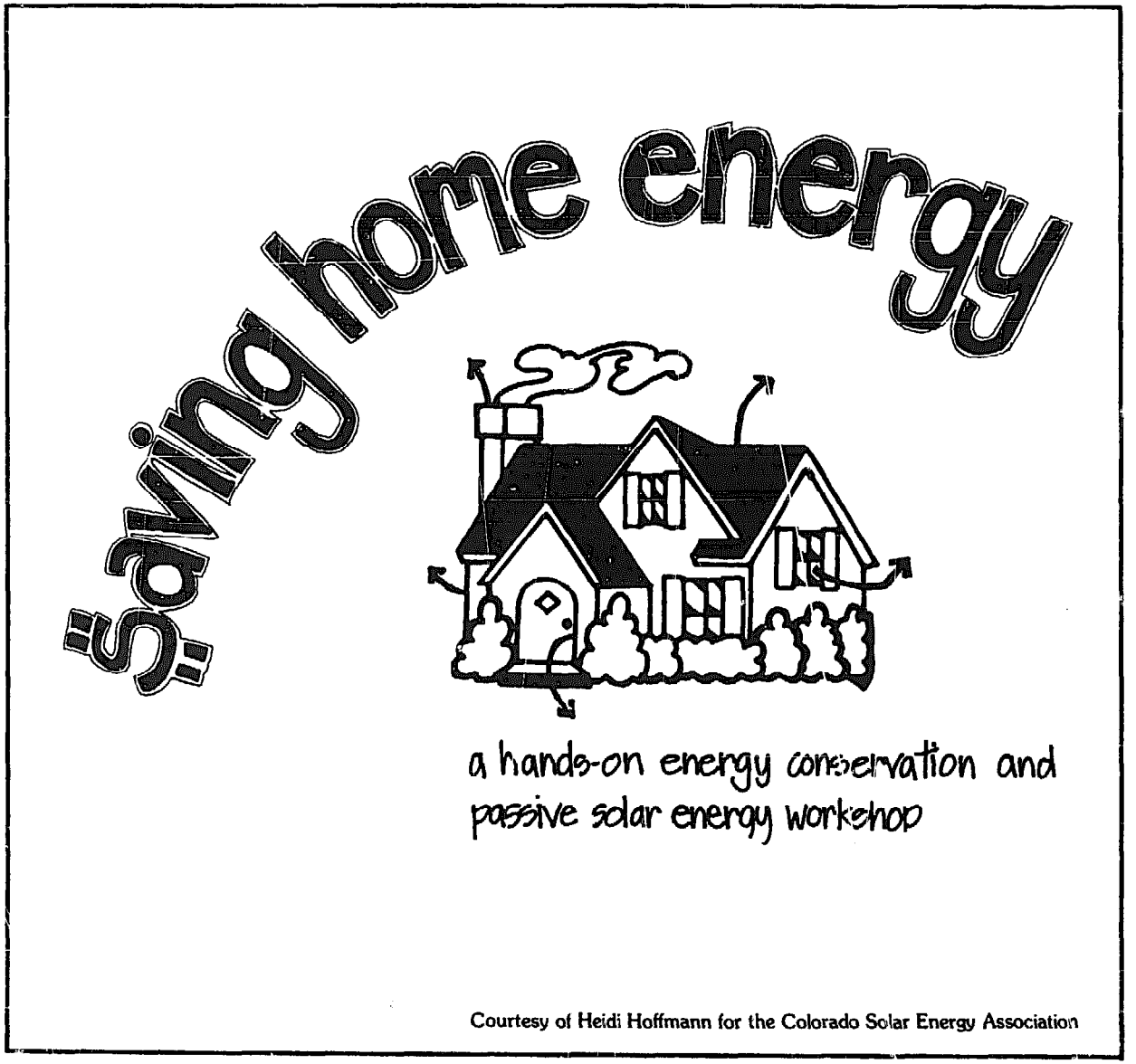
for more information

Harnessing the Wind for Home Energy p. 103
Producing Your Own Power: How to Make Nature's Energy Sources Work for You p. 117
Solar Dwelling Design Concepts p. 101
The Solar Frontier **(film)** p. 128

A private non-profit organization, the Alaska Center for the Environment has been a clearinghouse for environmental issues in the state since 1971. Funding comes from memberships, grants, and a variety of grassroots fundraising activities.

$aving Home Energy

Colorado Solar Energy Association
Denver, Colorado
Winter 1977



Courtesy of Heidi Hoffmann for the Colorado Solar Energy Association

Participants take caulk guns in hand to help low-income homeowners button up for winter in a weekend hands-on experience.

what made it happen

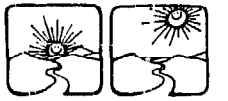
Low-income homes identified by local winterization projects
Donated tools, materials, and services from local businesses
Six-member volunteer committee
Five months of planning
Budget of approximately $500
One hundred and thirty-five attendees from the Denver metropolitan area
Fee of $12; $10 for CSEA members

what happened

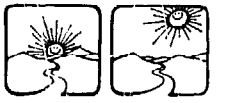
Nine low-income homeowners looked forward to a snug winter; a $1,700 profit was made, allowing publication of a workshop manual.

recommended for

Audience Type



Organization Type



"If all the individual homes of the world were conserving energy, we would see the true beginnings of a Spaceship Earth for which we're all equally responsible."

Six volunteers of the Colorado Solar Energy Association (CSEA) decided to dedicate hundreds of hours to putting on the $aving Home Energy Workshop as the first step to reaching this goal. They saw that conducting a hands-on workshop for their neighbors would help others see a clear place to start.

Although the committee would have preferred to focus the workshop on practical uses of solar energy, they knew the importance of "insulating before insolating." They chose to zero in on the reduction of home energy use, since installing solar would be a poor investment unless the building were first properly insulated, caulked, weatherstripped, and weatherproofed.

A workshop was designed to give people a comprehensive view of the subject. It included two weekday evening sessions, a Saturday hands-on weatherization session, and a Sunday lecture and tour of two well-designed passive solar buildings.

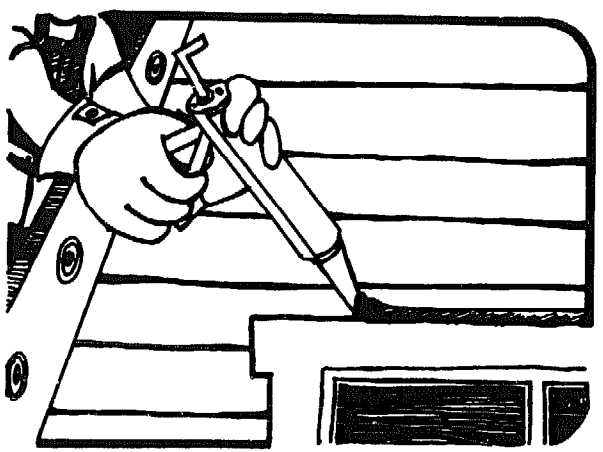
Bulk of the organizing work was carried out by a dedicated six-member core committee. Beginning with the birth of the idea in August 1976, the workshop took five months to plan. The committee met about every three weeks until December, and then once a week until the workshop in February 1977.

The committee pulled together a little over $500 to get the workshop off the ground; even so, some of the costs could have been reduced if more effort had been placed on obtaining donated services. As it was, 135 registrants actually showed up—50 were needed to break even.

Publicity activities included bulk mailing approximately 5,000 flyers to names culled from existing rosters and mailing lists of environmental organizations and solar energy groups. In addition, stacks of flyers were left at hardware, lumber, and grocery stores.

Press releases and Public Service Announcements were issued to local media, and posters were displayed on college campuses, community meeting centers, hardware stores, and other places of high visibility.

A great deal of preparatory time was spent securing donations of materials, tools, and funding from local businesses and organizations. Individual committee members took responsibility for contacting businesses, foundations, banks, utilities, and community groups. Key supporters were hardware stores, the local utility, the governor's energy office, and insulation companies.



Break-Down of Workshop Expenses

(1976 Dollars)

General Expenses	
Printing/Typesetting 5,000 Brochures	$200.00
Postage	65.00
Facility Use Charge	30.00
Telephone Answering Service	32.00
Registration Materials	47.00
Xerox	25.00
Hands-On Session	
Tools, Ladder Rental	62.00
Instructor Reimbursements (CSEA memberships, travel expenses)	66.00
	$527.00

As most of the workshop participants had already adopted the conservation ethic to some degree, workshop leaders sought to provide them with the necessary information, skills, and confidence to undertake do-it-yourself energy conservation improvements on their own homes.

Session One

Energy Conservation Measures and their Cost Effectiveness for Your Home

Participants will learn how to examine their homes and locate areas of heat loss and inefficient energy use. Instructors will point out common problem spots for houses, as well as provide information about how to avoid hazards that can arise through carelessly implemented "improvements." A thermograph, a machine which produces infrared photos that graphically denote areas of heat loss in a building, will be utilized in this segment.

Costing methods will also be covered. This will include some basic instruction on calculating heat loss, how to read meters, and information regarding the relative level of energy and monetary savings that can be effected through the use of various techniques and materials.

Instructors:

Senior Engineer for Energy Management Consultants, Inc.
Insulation Coordinator for Public Service Company's 3R Reinsulation Program
Rocky Mountain Thermograph Representative

Session Two

Insulation, Materials and Tools

This session will provide demonstrations of various types of insulating materials and will include data on their costs, R-values, and applications. A slide show demonstrating techniques and tools used in weather-stripping, caulking, and installing storm windows on a home will also be featured. Following speakers, tools and materials will be available for inspection and tryout.

Instructors:

Sales Representative for Johns-Manville Corporation (fiberglass insulation)
Insulation Coordinator for Public Service Company of Colorado
Dow Chemical Representative
Sales Representative for Rockwool Industries (rockwool insulation)
Director of Engineering for Solar Cell Corporation (cellulose insulation)
Istara Research Representative

Session Three

Energy Conservation Practicum

This "hands-on" session will entail splitting the class into teams of 5 to 10 persons. Each team will be assigned to a house which has been identified through one of the county winterization programs. During the session instructors will demonstrate how to complete various energy conservation measures in an actual residence and will supervise participants as they perform these functions. This experiential learning session will culminate the energy conservation sessions.

Bring To Session Three

*A sack lunch
*Tools—
-Caulking Gun
-Drill (Optional)
-Gloves (Optional)
-Hammer
-Mat Knife
-Measuring Tape
-Pencil
-Pliers
-Saw (Optional)
-Screwdriver
-Shovel (Optional)
-Staple Gun & Staples (Optional)
-Tin Snips (Optional)

Instructors from:

LaGente Housing Corporation
Adams County Winterization Program
Colorado Solar Energy Association
Istara Research

Session Four

Passive Solar Energy Utilization

The use of solar energy through "passive" techniques such as landscaping, shading with overhangs, window configuration, ventilation techniques, and other methods will be discussed in a lecture and slide show. A tour of an office building and a residence that are examples of proper design for passive solar energy utilization will follow. This tour is courtesy of the Crowther/Solar Group.

Instructors from:

Crowther/Solar Group, AIA
Solar Energy Program, University of Colorado at Denver
Colorado Solar Energy Association

For the hands-on session, 10 instructors led groups at nine homes identified by a local Community Action Program and one home of a CSEA member. Groups were limited to 5 or 10 working on each house—others chose to observe.

Houses were given energy audits by instructors in advance of the workshop and evaluated as to the need for basement, water heater, hot water pipe, and attic insulation, as well as weatherstripping, caulking, and storm doors and windows. Participants were led through the same audit in the first step of the hands-on workshop.

In addition to being the most time-consuming of all the sessions, the hands-on session also had the potential of being plagued by major last-minute changes. A hot-line and supply truck answered calls for additional supplies.

> "After the workshop, we asked ourselves and participants whether the whole thing was worth it. The general conclusion was that the people learned something. But more important was the good feeling, particularly generated at the hands-on session, that came from working together to achieve a worthwhile objective. This joyful, shared experience was special."

variations on the theme

- Get together with neighbors and plan a marathon insulation day. Buy cellulose in quantity and get the blowing equipment free.
- Examine the solar potential of local homes in a community solar audit.
- Hold a hands-on workshop to weatherize buildings undergoing rehabilitation in inner-city areas.
- Help small business owners by holding workshops at factories or offices. Let them pay for materials, you supply the free labor as part of a training session.

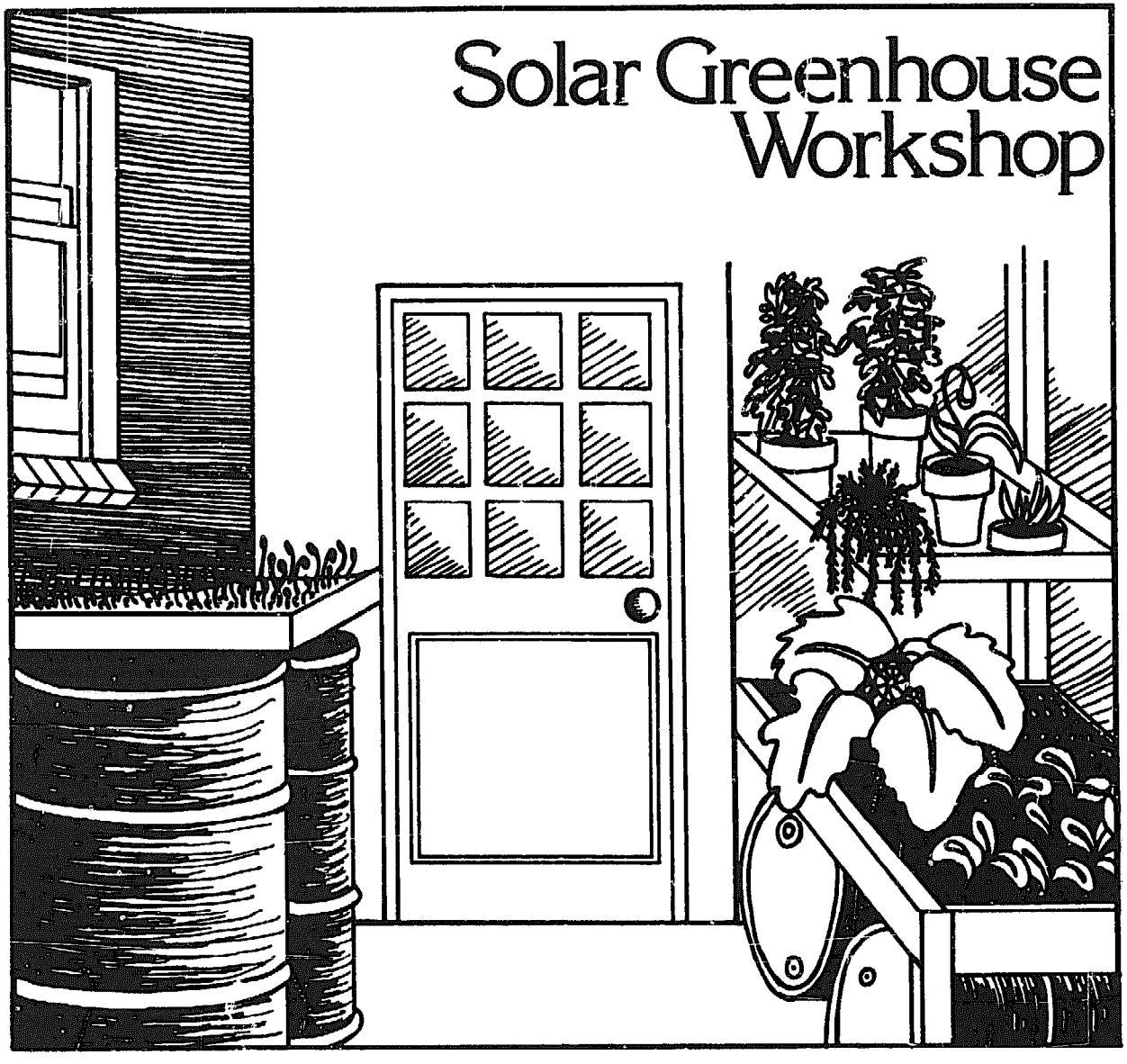
for more information

The Homeowner's Energy Guide: How to Beat the Heating Game p. 106
$aving Home Energy: A Guide to Organizing a Hands-On Energy Conservation and Passive Solar Energy Workshop p. 153
Solar For Your Present Home p. 126
The Solar Home Book p. 100

CSEA, a non-profit volunteer organization and a regional chapter of the American Section/International Solar Energy Society, is involved in community-scale solar energy education and outreach activities.

Solar Greenhouse Workshop

Maine Organic Farmers and Gardeners Association
Northeast Carry
Hallowell, Maine
Since Spring 1978



Hammer-wielding neighbors raise an attached solar greenhouse in two days, and Mainers discover the joys of year-round growing.

what made it happen

Marriage of a long-time gardening group and a new appropriate technology organization
Experienced workshop leaders
One local coordinator, two resource people
Mixture of experienced/inexperienced folks
Two to three months of systematic planning
Charge of $15 per participant
Maximum 20 attendees
A $1500 state grant; a $2000 extension

what happened

Food-producing greenhouses appearing around the state provide a year-long growing season in a cold climate.

recommended for

Audience Type

Organization Type

Because of a lack of available information and a degree of cultural resistance, the use of greenhouses in Maine has been limited mainly to the seasonal growing of seedlings and holiday flowers. However, because much of the state's food is shipped in from beyond the New England region, the potential for food- and heat-producing greenhouses is extensive.

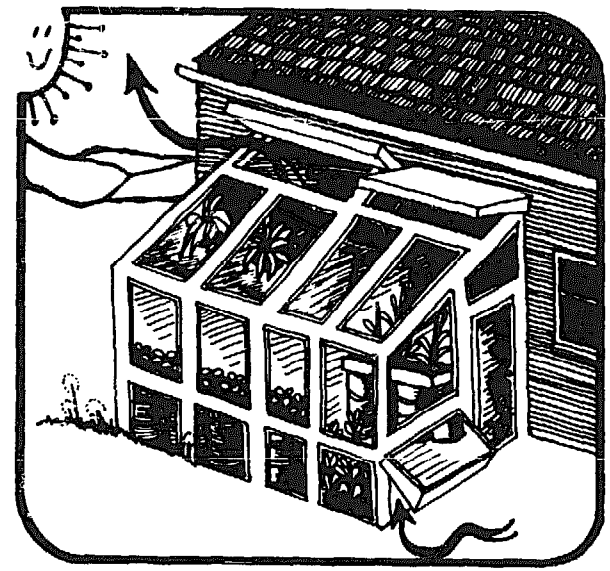
A new appropriate technology group, Northeast Carry, linked up with the Maine Organic Farmers and Gardeners Association (MOFGA) to hold solar greenhouse workshops throughout the state and demonstrate the adaptability of the attached, solar-assisted greenhouse in Maine. The project was funded with a small grant from the Maine Energy Office.

Originators of the program hoped to set into motion the multiplier effect that typifies hands-on workshops by training people who then pass their new-found skills on to others in their own communities. Using a small grant from the Maine Energy Office ($1500 for each of the first two years plus a $2000 extension), key organizers developed a plan which relied heavily on a network of existing groups and individuals.

Northeast Carry has the responsibility of general organizing through coordination with local MOFGA chapters, the University of Maine extension offices, and other in-place local rural groups.

A volunteer local coordinator in each community provides that important familiar face best suited to working closely with local press, businesses, and neighbors.

MOFGA, working with the Maine Energy Office, prepared articles for regional magazines and environmental publications and held a press conference to kick off the workshop program. Press releases sent to local media, flyers posted at key community gathering places, and less formal verbal networking spread the word for each upcoming greenhouse workshop.



Local coordinators help to identify possible sites for the workshop—a suitable home as well as an owner willing to provide materials and a concrete foundation in exchange for a weekend of free greenhouse labor are needed. A design package is forwarded to the homeowner well ahead of time and includes greenhouse plans, detailed site criteria, expected costs, and suggested materials. Followup visits by local technical resource people result in a site evaluation and final plans and materials list.

The workshop is designed for a maximum of 20 participants who each pay $15 to attend ($25 per couple). In order to use the limited workshop time most efficiently, each participant receives a preregistration packet with background information.

Agenda

Morning - First day of workshop

—Introduction to solar energy: heat loss, solar gain, storage, insulation, reflectors, shutters
—Environmental requirements for growing plants in a greenhouse: ventilation, air movement, carbon dioxide, growing mediums, alternatives
—Construction sequence and plans: responsibilities of workshop participants and organizers

Afternoon - First day of workshop

Crew #1—Pre-cut and assemble south wall.
Crew #2—Fabricate door and vent panels, insulating and/or glazing as appropriate.
Crew #3—Pre-cut glazing for front and side walls; pre-cut wood lath for sealing glazing. Install flashing over styrofoam foundation insulation.
Entire Group— Raise greenhouse front wall, attach to house. Informal review of second day plans, question and answer period with resource people.

Morning - Second day of workshop

Crew #1—Pre-cut, assemble side walls; install vents, door, fitting, and weather-stripping.
Crew #2—Apply preservative to south wall framing. Cut and attach plywood to south wall framing for roof section; apply glazing to front wall.
Crew #3—Make alterations to existing house wall, i.e., door, vents, etc., or begin construction of planting beds or anything else forgotten or unique to the site and situation.

Afternoon-Second day of workshop

Crew #1—Install side glazing, exterior and interior paneling insulation.
Crew #2—Attach interior Monsanto 602 to front wall and install wood laths to cover staples. Install greenhouse roofing and attach flashing to house.
Crew #3—Make alterations to existing house wall, i.e., doors, vents, etc., or begin construction of planting beds or any last minute caulking of door, vent, and trim.
Entire Group— Celebrate completion of greenhouse and recap activities.

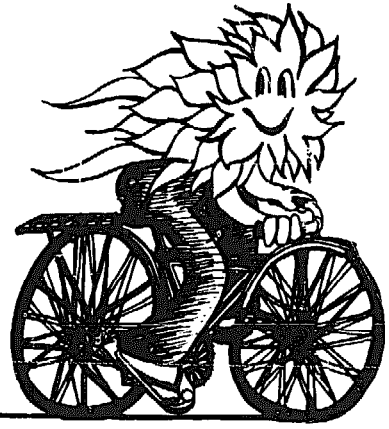
variations on the theme

- Build the greenhouse on a school or community building and use the experience as part of a school project.
- Hold a workshop in an existing greenhouse and focus on greenhouse gardening and maintenance.
- Develop a workshop on building and using cold frames.
- Organize a workshop to convert a south-facing brick wall to a passive solar Trombe wall.

for more information

The Complete Greenhouse Book: Building and Using Greenhouses From Cold Frames to Solar Structures p. 134
How to Give an Attached Solar Greenhouse Construction Workshop p. 151
A Solar Greenhouse Guide for the Northwest p. 135
Build Your Own Greenhouse Solar Style **(film)** p. 136

Northeast Carry is a non-profit organization set up to help revitalize the rural economy through the use of small-scale community industries and energy alternatives. MOFGA is the strongest organic gardening group in the country.

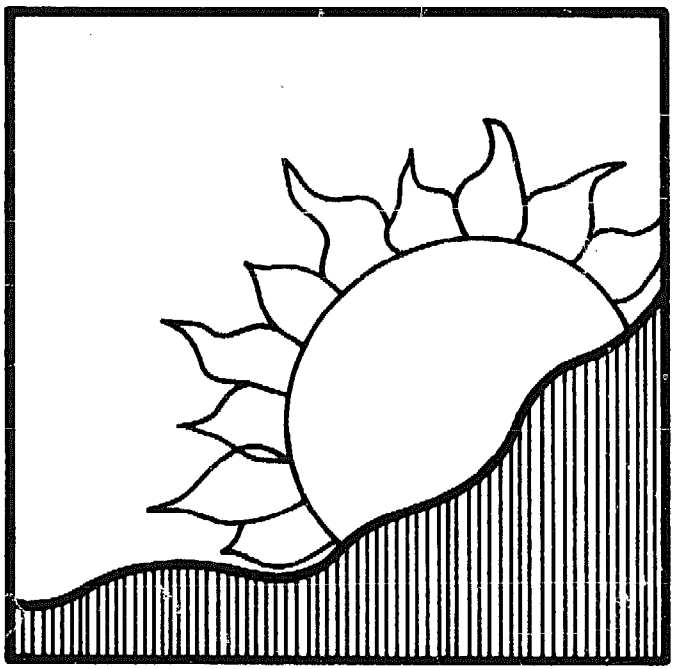


Solar Food Dryer Workshop

Future Power at San Luis
ROMCOE-Center for Environmental Problem Solving
San Luis, Colorado
Fall 1978

San Luis Future Power

Workshop One: Solar Food Dryer



Courtesy of San Luis Future Power

El Sol helps rural folk to grow their food and dry it, too, in two days of hands-on construction.

what made it happen

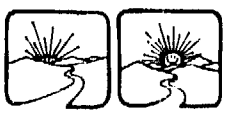
Locally innovated and tested design
Cultural tradition of sun drying
Person-to-person contact
Two dedicated local coordinators
One and one-half months of planning
Donated materials worth $150
Seventy-five participants and observers
Free admission
One low-income rural community low on fuel and high on sun

what happened

Three food dryers were built as the first in a series of solar projects; many people had their first hands-on exposure to solar applications.

recommended for:

Audience Type



Organization Type

San Luis was one of three Colorado communities selected by the Rocky Mountain Center on the Environment (ROMCOE—now ROMCOE-Center for Environmental Problem Solving) for the Future Power program. Funded by a grant from the Carolyn Foundation of Minneapolis, the program goal was to help the communities realize that they could participate in the creation of their own energy futures.

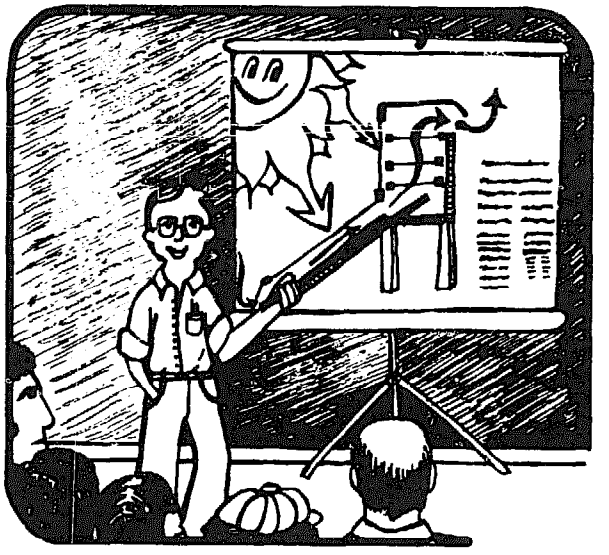
When the Future Power program at San Luis made its first attempt to introduce low-technology solar applications in a rural area strong in Hispanic tradition, the solar food dryer seemed a likely choice.

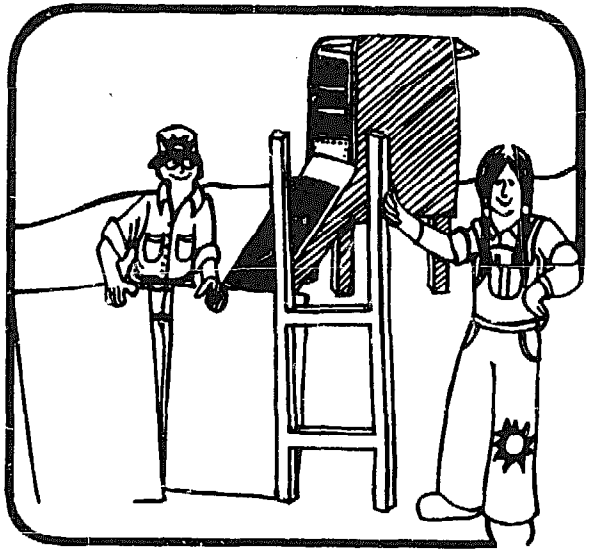
Local organizers recognized that the old, accepted tradition of drying food by the sun could easily be updated with good prospects for success in a culturally unique community. Solar applications seemed a natural for the poor, isolated mountain community with a history of heavy reliance on increasingly expensive propane.

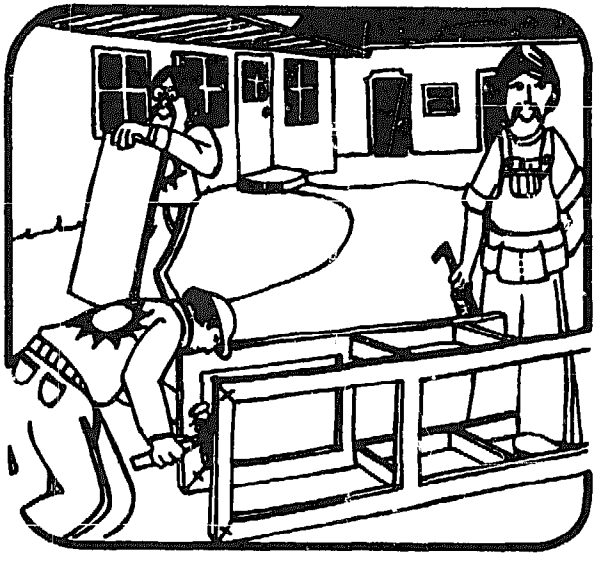
A two-day food dryer workshop, developed by the program codirectors in the traditional barn-raising style, was the lead-off project in the Future Power program.

During the two days, three low-cost, portable food dryers were constructed by five representatives of sponsoring organizations, while more than 50 of their neighbors observed or pitched in to help. The dryer, designed and tested by the codirectors, can be built using basic carpentry skills and a few common household tools.

The purchase of off-the-shelf materials was financed by the local Community Action





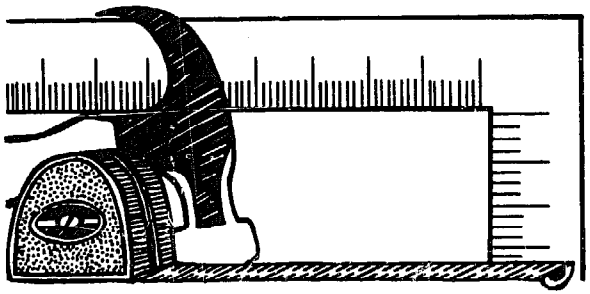


Program, ROMCOE, and the Colorado Migrant Council for about $50 for each bushel-capacity dryer. A recycled version could be made for $30 worth of materials.

Much of the success of the Future Power program can be attributed to the ability of

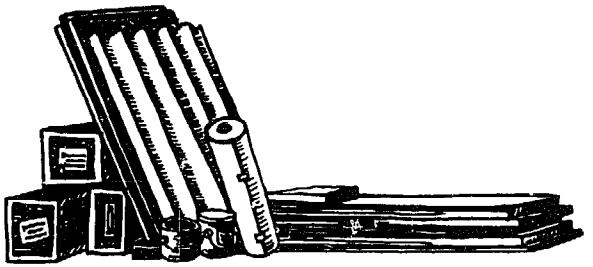
by project organizers to elicit strong cooperation among various sectors of the community. Local residents sat on a steering committee, often meeting informally in people's homes. Much of the important contact was made on an individual basis, from neighbor to neighbor.

Success of this first workshop was a steppingstone for other projects, including the installation of a solar heater and greenhouse retrofit on community buildings, field water heaters for migrant workers, and development of a six-part classroom series encouraging energy-conscious design for local contractors. The results of the workshop are visible and direct: over 40 applications have appeared in an area which once displayed only eight solar units.



Tools

Hand saw or Skil saw, if available
Hammer
Tape measure
Framing square or tri-square
Wood rasp
Screwdriver
Tin snips
Staple gun
Brace and 1", 1/2" auger bits
Keyhole saw
Paint brush
Caulking gun



Materials

Lumber
Plywood
Wood furring strips
Molding
Plastering metal lath
Celotex insulation
Nylon mesh for food trays
Corrugated roofing metal
Aluminum foil
Heat resistant flat black spray paint or stove polish
Air intake vent
Clear fiberglass
Screen for protection against insects
Hinges
Cement coated nails
Galvanized nails
Bolts/nuts and washers
Exterior grade paint
Caulking compound
Screen door latches

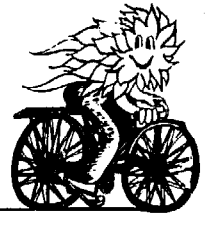
variations on the theme

- Combine the workshop with a session on solar cookers and ovens, complete with recipes and taste samples.
- Let a health food restaurant or store owner purchase materials for the workshop and then sell solar dried treats.
- Hold a workshop scaled to farm uses of crop dryers.
- Give a workshop on how to scavenge recyclable materials from local junkyards, alleys, backyards.

for more information

A Cookbook for Building a Solar Food Dryer p. 129
How to Build a Solar Crop Dryer p. 129
San Luis Future Power p. 153
The Solar Food Dryer Book p. 130

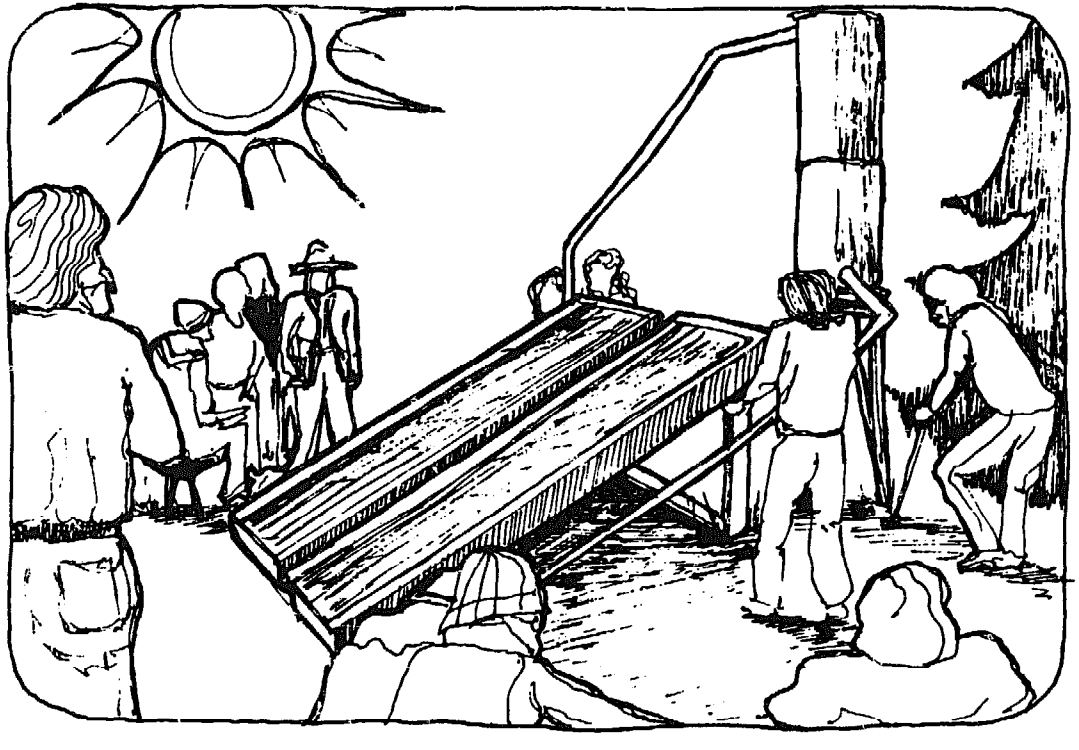
San Luis Future Power was one of three Colorado communities selected by the Rocky Mountain Center on the Environment (ROMCOE—now ROMCOE-Center for Environmental Problem Solving) to understand present energy use and sources and create and implement its own energy future.



Solar Water Heater Workshop

Ecotope Group
Seattle, Washington
Since Summer 1976

A Solar Water Heater Workshop



Courtesy of Carol Oberton for Ecotope Group

At a two-day hands-on workshop, participants take away basic construction skills and leave behind solar water heaters ready for installation.

what made it happen

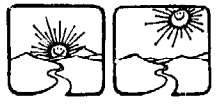
Experience in lecturing on the topic
Early preregistration
Homeowner willing to pay for materials for solar system
Two to three experienced workshop leaders
Three to five local organizers
Two months planning time
Payment for qualified instructors
Participation fee of $25-$30
Maximum 35 participants

what happened

Trained solar enthusiasts were left to teach others in their neighborhoods, and a local resident received a solar system.

recommended for

Audience Type



Organization Type

After years of experience lecturing about decentralized energy and conservation, Ecotope Group and *RAIN* magazine felt a need to take the process one step further. They wanted to stop merely talking and teach people how to actually build their own solar equipment, putting basic construction skills to work with commonly available tools and materials.

In 1976, organizers decided a two-day hands-on solar water heater workshop would not only produce owner-operated, sun-powered projects, but would give people an awareness of the potential of solar technologies along with the motivation and skills to implement them. They envisioned a multiplier effect in which each successful workshop would leave behind a trained cadre of solar enthusiasts who could, in turn, pass their new-found skills on to friends and neighbors.

Toward that end, Ecotope offers itself in a consulting role for groups who want to sponsor a workshop but lack the technical expertise. Ecotope provides workshop instructors, and under direction of the Ecotope staff, the local group handles publicity, registration, and materials purchase. In the workshops, Ecotope uses thermosiphon passive hot water systems designed for construction and installation by people with general building skills, using readily available, reasonably priced materials.

Workshop organizers have found that handmade, owner-installed systems generally cost one-half to two-thirds less than many commercial systems, yet still provide up to three-quarters of the energy that commercial systems provide. Before holding the workshop, organizers personally go through the process of building the water heater in order to experience some of the nuances of construction and to convince themselves that the system does indeed work.

During each weekend workshop, two solar panels are constructed and connected to a storage tank to provide an operating solar water heating system. Permanent installation is not necessarily a part of the workshop, though significant progress toward this can be made with careful design and preparation. The heater can also be set up as a free-standing and semi-portable display unit.

Agenda

Friday evening (3 hours)
Slide show on solar, wind, biomass, and conservation

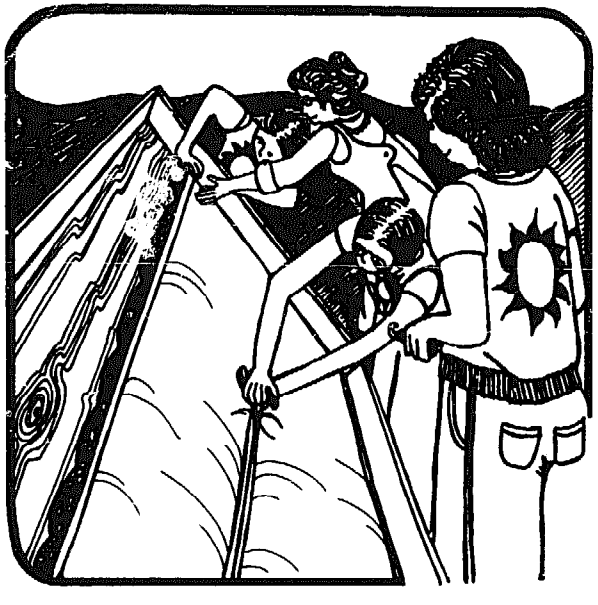
Saturday (8 hours)
Hands-on solar panel construction

Sunday (7 hours)
Solar system hookup, and wrap-up question and answer session

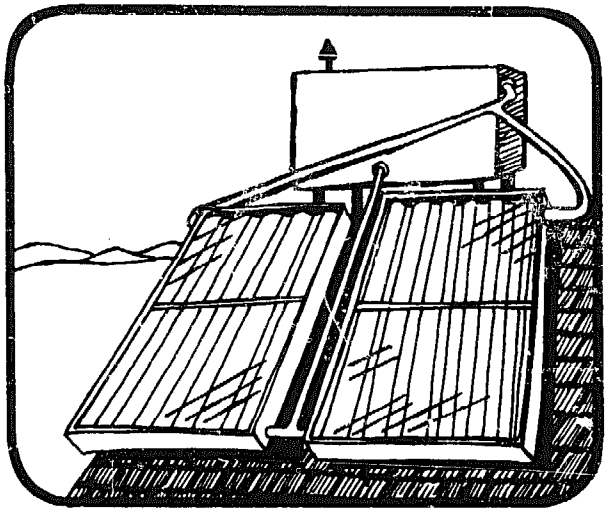
Participants preregister and receive a workshop manual as much in advance as possible. Coordinators are then able to assess individual skills or interests of participants from registration forms and can identify local plumbers and carpenters who could help provide tools or serve as group leaders. With a better handle on audience makeup, organizers are able to

tailor instruction to specific needs and levels.

Construction tasks during the Saturday workshop portion are divided into three concurrent activities. One group leader is responsible for construction of collector boxes; another takes charge of all items dealing with plumbing and absorber plate assembly. The third leads the installation work. With this organization, panels are easily assembled, except for glazing, during the Saturday session. Participants are encouraged to alternate between various activities to get as broad an experience as possible.



Ecotope Group recognizes the need to handle the question of building, zoning, and plumbing codes on an individual community basis. The regulation process, including presentation of drawings, payment of permit fees, and inspection of work, is often ignored by do-it-yourselfers if the project is inconspicuous or noncontroversial.



Ecotope Group cautions, however, that opposition by neighbors, plumbing unions or the community could lead to discovery of a code violation and removal of the heater if a permit is not acquired.

Budget items for the workshop include instructor fees, travel and per diem, solar system materials, and publication and promotional expenses. Contingencies account for another 10 percent of the total budget, which varies with each workshop. Usually, the sponsoring organization pays for materials and handles registration.

Materials are purchased wholesale whenever possible, not only for the sake of economics, but to generate additional business for local materials suppliers. The base system cost is about $400 for two collectors and a storage tank and between $500 to $800 for an installed system. If recycled materials are used whenever possible, these costs can be cut.

Ecotope charges $1200 to $1500 to survey, design, specify materials, give the lecture/slide show, and conduct the workshop. In a less formal situation—i.e., if no installation is attempted, services could cost less.

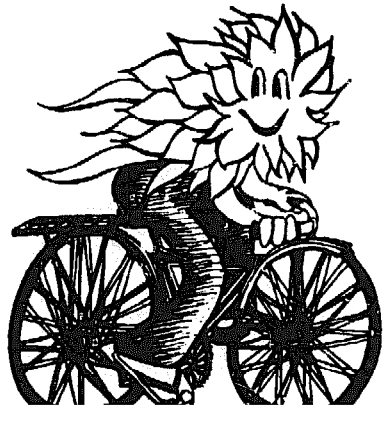
variations on the theme

- Hold the workshop at a community building or business instead of a home.
- Build a vertical, day-use air collector and install it.
- Gear the workshop to leaders of various community groups who can then lead their constituents in other workshops. Train the trainers.
- Construct a solar water heater and then raffle it off to raise money for your group. Check local ordinances, regarding raffles or sweepstakes.

for more information

Build Your Own Solar Water Heater p. 130
Solar Hot Water and Your Home p. 131
The Solar Water Heater Workshop Manual p 102
Solar Domestic Hot Water for Your Home **(film)** p. 133

Ecotope Group is a non-profit research, demonstration, and education organization focusing on efficient, affordable, decentralized applications of solar, wind, and biomass technologies.

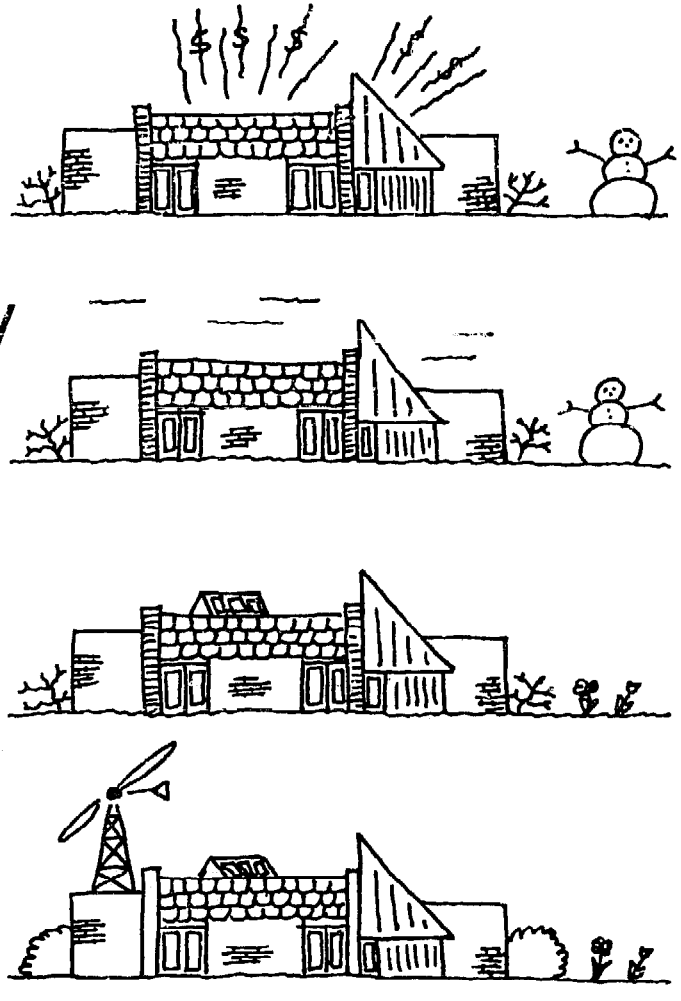


Epoch B: Early Planning

Ecology Center
Evanston Environmental Association
Evanston, Illinois
Fall/Winter 1976/77

A Community Project in Alternate Energy

Epoch B



Courtesy of Epoch B

Bold, visionary citizens set out on the first leg of a journey to sane urban living and take a turn toward wise energy use.

what made it happen

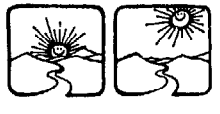
An established environmental organization
Core group of widely divergent backgrounds
More enthusiasm than experience
One energy-wasting building
Nine months of preliminary planning
One full-time paid director
Focus on both discussion and construction
Persistence and unwillingness to consider defeat

what happened

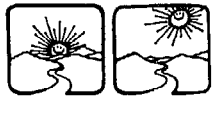
A loosely organized group grew into a cohesive action organization, building a common understanding and ultimately retrofitting the group's urban headquarters.

recommended for

Audience Type



Organization Type

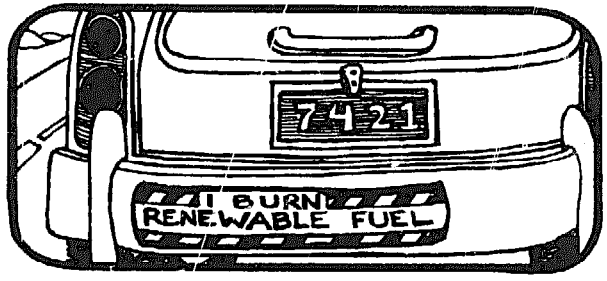


In the established urban community of Evanston, Illinois, two housewives, an environmentalist, an associate physics professor, and an elementary school teacher developed the Epoch B program under the support of the Evanston Environmental Association (EEA).

Formation of this group of strange bedfellows was prompted by a resident asking at the local Ecology Center about programs addressing the search for a saner urban existence. At the center director's urging, the woman planted the seed idea for the committee which eventually turned the center into a living laboratory of alternative energy forms.

Nine months of preliminary planning for the project were intially typified by lack of direction, no great relevant expertise, and no previous individual experience working with small groups. Although time-consuming, these early exploratory stages of project development stimulated and solidified the group's thoughts enough to spur them into action. Within a year's time, the group had taken a look at a typical urban building, studied its wasteful energy consumption, insulated a part of it, installed solar and wind energy systems, and used it as an energy education center.

The group began by looking for funding sources for its goal: to make an educational demonstration of ways to use energy wisely in a northern urban building. Their research showed that, in most cases, similar programs had been financed with the help of industrial or government-funded programs or university research projects. The spontaneous community project didn't seem to fit any of the available categories.



With EEA Board support of a plan to use the Ecology Center as a demonstration site, the Epoch B committee planned its first public session for an EEA membership meeting. Realizing the amount of public support necessary to carry out its plan, the committee prepared more publicity than was usually generated for the meetings.

Posters were designed, flyers distributed, and newspapers notified. The core committee did most of the work, but was able to rely on center staff to handle the mailings and answer incoming phone calls.

The committee kept in mind that they had no money, could count on none from the new and struggling Ecology Center, and knew of no obvious sources of funding.

At the first gathering, committee members attempted to describe the steps of their planning and to translate their ideas into an action plan stimulating and exciting enough to garner the support and willing hands of audience members. Over 50 people drawn from a range of backgrounds and interests attended the first meeting. Although intellectually interested in energy conservation, most, like the core group, were enthusiastic but uninformed.

Before the close of the meeting, a working session was spontaneously scheduled for the following week. From there, a number of loosely structured exploratory meetings were held, each attracting about 25 people. Those meetings resulted directly in a six-month series of workshops on heat loss, insulation, solar energy, solar storage, and wind.

The full-scale retrofit project was planned after the success of these workshops. Organizers felt one reason for the success of the program was the weather—the winter of 1976-77 was the coldest on record and drew many people eager to learn new ways of keeping warm.

The core group began with the idea that development of a functioning demonstration of sound energy usage was the most effective step toward finding answers to their energy questions. By the end of the project, more than 200 people had taken part. As well, the organizers eventually

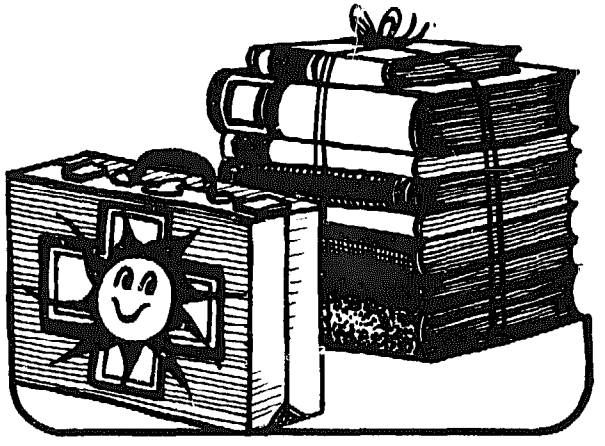
rounded up enough materials, supporting services, and cash from 35 organizations and businesses to cover 60 percent of demonstration costs. The City of Evanston ultimately kicked in $33,000 in revenue sharing funds, and a national fastfood chain provided Epoch B $4,500 to write and distribute a final report and another $4,000 to produce a slide show.

"The most impressive outcome of the project was not the exact knowledge of how to weather-strip a window or how to develop calculations for alternate energy usage. It was the fine spirit generated among such a diverse crowd of people . . ."

Program —

First Public Meeting

Presentation of Project Idea and Role of the Active Visionary
"Insulation From the Cold" - an EEA board member who had recently been on a picket line demonstrated his insulation methods by peeling off layers of sweaters, foil, and newspaper
Wind Generator Slide Show
Solar Principles Explained by a "Non-Expert"
Children's Program Activities
Development of a Local Energy Policy



variations on the theme

- Look for support in local government offices or agencies. Try a regional planning group, or governor's office, or push for establishment of a community energy task force.
- Start out by bringing together people in one block or section of the community to examine area-wide issues.
- Sponsor a neighborhood co-op to purchase equipment and vegetation, and start a community trend toward energy/water-efficient landscaping.
- Work with your local government to identify the key energy users in their own ranks. Firehouses are good places to start.

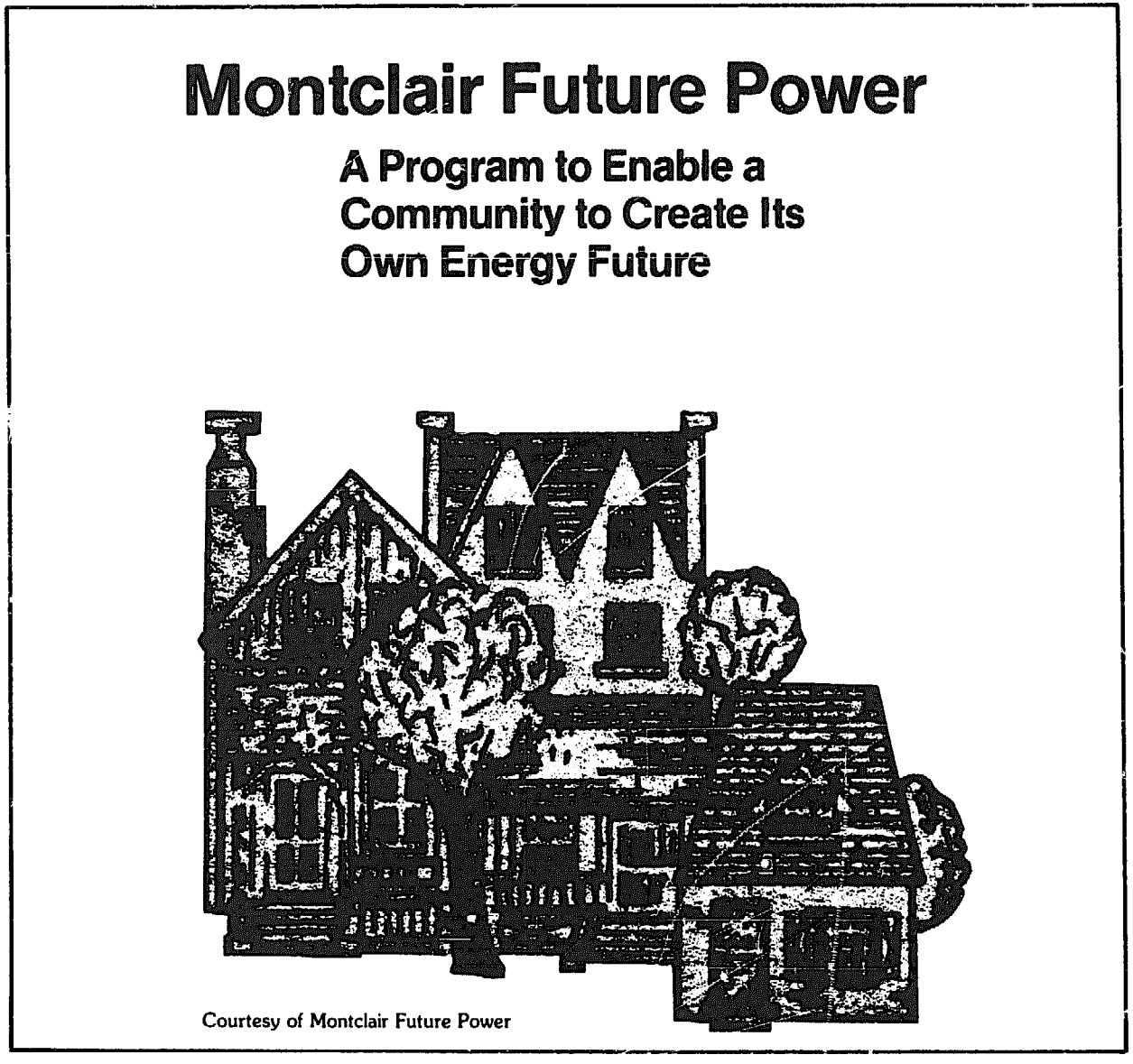
for more information

A Community Project in Alternate Energy: Epoch B p. 150
Grand Junction Future Power p. 151

Evanston Environmental Association is a community-based, non-profit environmental education organization that provides conservation programs, workshops, and other activities for all ages.

Montclair Future Power

Montclair Community Association
ROMCOE-Center for Environmental Problem Solving
Denver, Colorado
Fall 1976



Courtesy of Montclair Future Power

A one-day workshop and followup energy fair allow residents a key role in mapping out hard path/soft path future energy journeys.

what made it happen

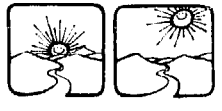
Support from the neighborhood association
Qualified speakers
Local volunteers
Stipend of $1,000 for community coordinator
Six months of planning
One shoestring budget
Forty workshop participants
Free admission
One mid- to upper-income urban neighborhood with a high percentage of older people

what happened

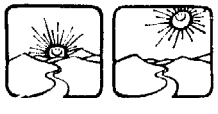
A project which began with little enthusiasm from the community led to a well-attended energy fair, construction of a school solar greenhouse, and establishment of an ongoing Future Power Committee.

recommended for

Audience Type



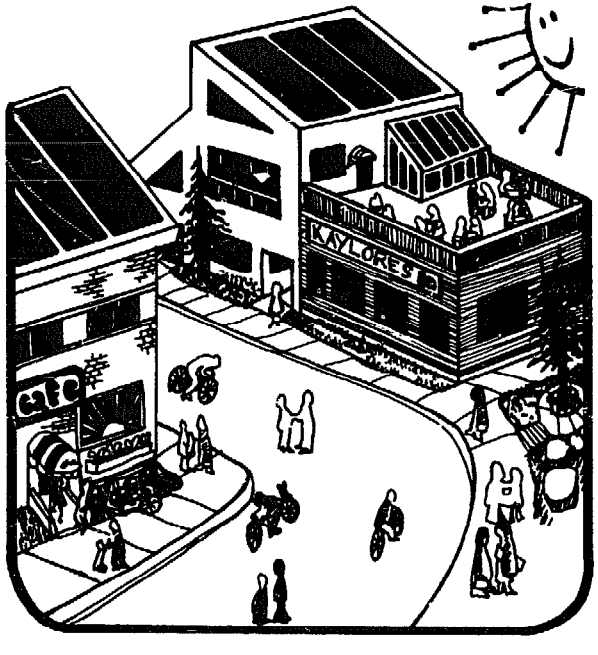
Organization Type



An energy futures workshop was developed as part of the larger Future Power program organized by the Rocky Mountain Center on the Environment (ROMCOE—now ROMCOE-Center for Environmental Problem Solving) in conjunction with the Montclair Community Association.

Funded by a grant from the Carolyn Foundation of Minneapolis, the Future Power program set out to help three Colorado communities realize that they could participate in the creation of their own energy futures. One basis of the program was that communities of individuals can have a greater effect on the energy situation than individuals can have working independently.

The local businessman selected to receive a $1,000 stipend as community coordinator had a great deal of organizing ability and knowledge of the community. One of his first acts was to expand an original steering committee to include senior citizens, business people, representatives from schools and local organizations, and local residents with experience in various energy forms. Each was given a specific task such as publicity, hospitality, project support, or liaison with local churches, Parent-Teacher Association, or senior citizens.



A day-long Saturday workshop kicked off the project, which culminated with the dedication of a community greenhouse on an elementary school five months later. Workshop speakers were drawn from the community, as well as from the Regional Transportation District, Colorado Office of Energy Conservation, Public Service Company, and the District Attorney's Consumer Office.

Montclair Elementary School was selected as the site for the workshop. Although school administration and board support were received, the school's regulations required that three residents put up their homes as collateral for use of the space.

Two door-to-door handouts were used to develop interest in the workshop. The first, distributed three weeks before the workshop, outlined topics to be considered. The second, delivered the week before the workshop, included a full agenda.

Press releases were mailed to neighborhood churches and organizations to use in their newsletters and to metropolitan area newspapers and radio and TV stations. Several articles were printed before and after the workshop, and three area TV stations provided live coverage.

Although the neighborhood has a population of about 6,000, only about 40 people participated in the workshop, some dropping in and out throughout the day. Conflict of activities on Saturdays, especially during the football season, and the first of the month (payday) were given as possible reasons for the low turnout and highlight an often forgotten need to be careful about selecting dates with conflict potential.

ROMCOE people found neighborhood support was slow to develop, partially because people informed on the issues found it difficult to take an active part, either because of prior commitments or a lack of organizing skills. As a result, ROMCOE staffers took on a substantial initial role until community participation grew.

Energy Futures Workshop Agenda

9:00-9:45	Introduction and Energy Overview "Future Power" Slide Show
9:45-10:15	Montclair's Energy Picture
10:15-10:30	Coffee Break
10:30-12:00	Two Energy Futures for Montclair
12:00-1:00	Lunch
1:00-3:00	"What Can We Do?" - Four consecutive 30-minute sessions were held in each of

the following nine subject areas. Each participant attended four sessions.

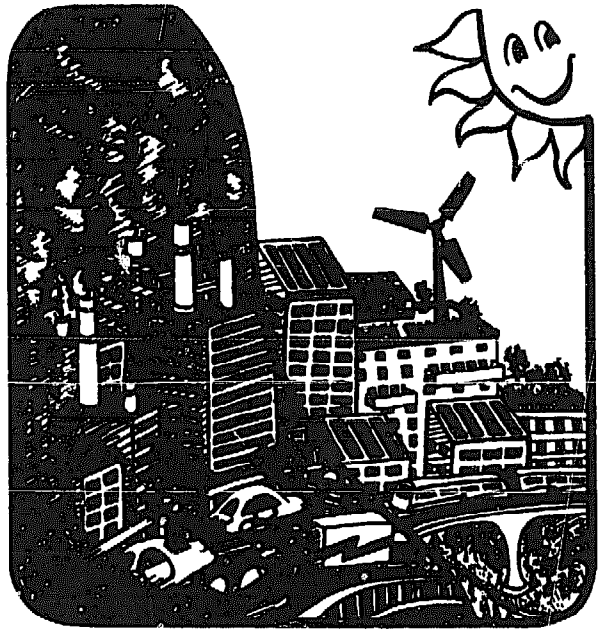
- Energy Audits
- Transportation
- Solar Options
- Federal and State Legislative Update
- Public Information
- Public Service Company of Colorado Energy Conservation Program
- Urban Agriculture
- Consumer Affairs
- Insulation

3:00-4:15 Topical Groups Develop Project Ideas for Montclair

- Home Energy Efficiency
- Transportation
- Solar Devices and Other Renewable Resources
- Public Information
- Urban Agriculture
- Personal Energy Behavior
- Other

4:15-4:30 Concluding Remarks and Evaluation

Highlight of the workshop was the energy futures exercise, which gave participants a chance to think about a range of possible energy futures for Montclair. Based on the hard path/soft path energy futures described by Amory Lovins, two radically different visions of the Montclair community in the year 2002 were developed.



Vision I

—Continued reliance on fossil fuels
—High-density development
—Increased traffic and freeways
—Dependence on private cars
—Poor air quality
—More money for new fossil fuel facilities; less for community services

Vision II

—Decentralized energy production
—Solar collectors, greenhouses, windmills
—Mass transit and bike paths
—Less air pollution
—Community gardens and parks
—More funds for community services

Participants discussed each vision and identified local, state, and Federal level decisions which would lead to its realization. After considerable exploration of the impact of today's decisions on tomorrow's environment, it was assumed that the community's future lay somewhere between the two visions.

The workshop generated enthusiasm for the overall program, as involved people encouraged friends and neighbors to participate. Steering committee meetings leading to the Energy Fair attracted 25 to 35 people each — the fair itself attracted nearly 1,000.

The outcome of the fair was the construction of a solar greenhouse attached to the Montclair Elementary School. Organizers observed somewhat reluctant residents become more involved as they gained confidence in their skills and abilities and increased their personal satisfaction.

Since then, citizens have organized a 10-member Future Power Committee to develop continuing programs. The group is working with the Montclair Community Association and with students from the College of Environmental Design at the University of Colorado to explore alternatives and design projects aimed at reducing neighborhood energy use by half.

variations on the theme

- Work with local schools to include classroom materials and exercises on energy futures and then invite parents to discuss issues.
- Find a rallying issue for residents and follow through by working with local government.

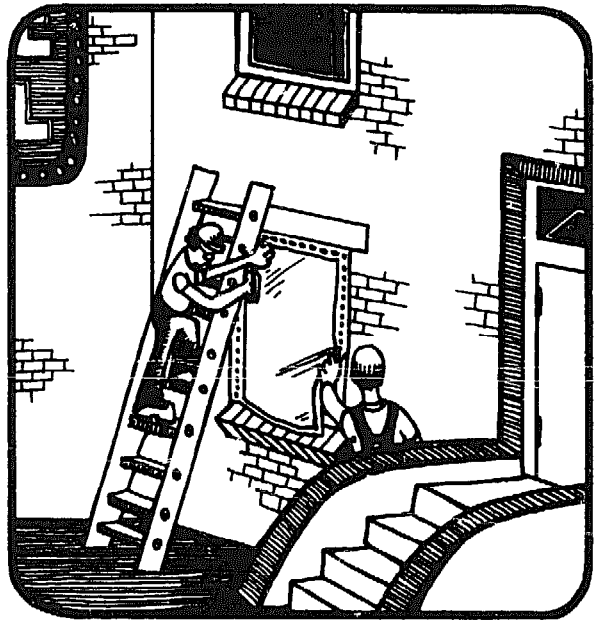
Consider improvement of bus traffic to reduce neighborhood traffic or use of vacant lots for community-scale energy projects or gardens.

- Sponsor a task force to work with public libraries, schools, low-income housing, and recreation centers to reduce energy consumption. Build support for energy audit programs.
- Work with local Chamber of Commerce to assist small business owners to reduce energy consumption.

for more information

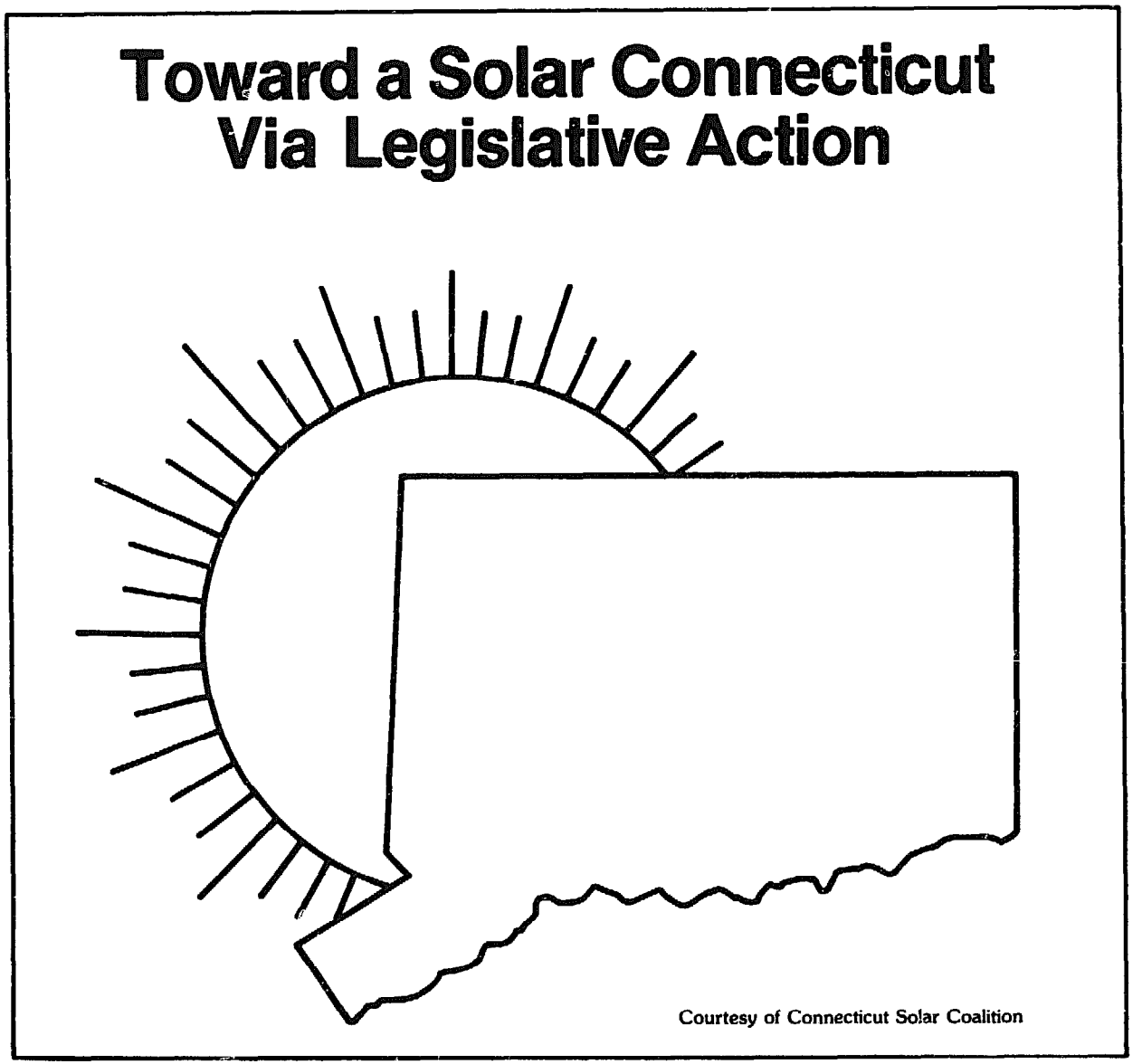
Energy for Survival: The Alternative to Extinction p. 143
Montclair Future Power p. 152
Energy: A Matter of Choice **(film)** p. 145
The Great Adventure **(film)** p. 122

Montclair was one of three Colorado communities selected by the Rocky Mountain Center on the Environment (ROMCOE—now ROMCOE-Center for Environmental Problem Solving) to investigate current energy use and sources and create and implement its own energy future.



Toward a Solar Connecticut via Legislative Action

Connecticut Solar Coalition
Hartford, Connecticut
Winter/Spring 1978/79



Courtesy of Connecticut Solar Coalition

Statewide town meetings encourage citizens to fight rising utility bills with voteworthy solar bills.

what made it happen

Action-oriented parent organization
Well-coordinated advance publicity
Two organizers
Free hall or meeting space
One month planning per meeting
Public involvement

what happened

Slide show/lecture introduced people to solar energy and led to increased lobbying activities for state solar bills.

recommended for

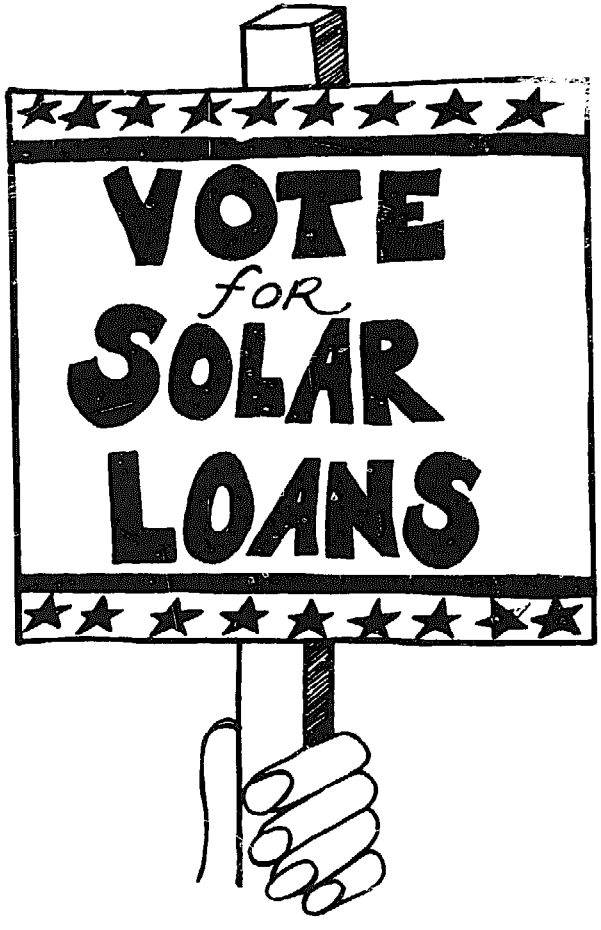
Audience Type

Organization Type

Realizing the need for a strong legislative framework to support increased solar energy use, the Connecticut Solar Coalition (CSC) is holding informational meetings around the state to interest citizens in developing an effective solar energy lobby.

CSC, an offshoot of the Connecticut Citizen Action Group (CCAG) in Hartford, is a statewide group which grew out of 1978 Sun Day activities.

The basis of CSC's organizing efforts are evening slide and lecture presentations held in legislative districts around the state. The programs give citizens a look at the basics of solar energy, brief them on current energy-related legislation, and encourage public involvement in the lobbying effort.



Solar Legislative Timeline

Feburary 15-March 15: Finalize plans for district meeting with legislators on the Energy Committee; complete statewide Bank Survey; invite legislators

March 15-23: District meeting with Energy Committee people; get commitments from them to support our bills

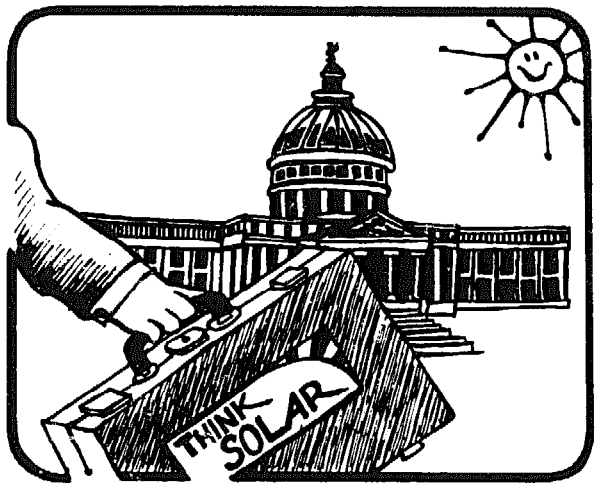
March 23-April 14: District meeting with Revenue and Bonding Committee people and with key leadership people

April 1-14: Cails, mailgrams, letters-to-editors; overwhelm legislators to set mood for a unanimous favorable joint committee vote; legislation moves onto the floor

April-May: Continue rallying grassroots efforts across the state

May 3(?): Statewide Solar Coalition meeting in Hartford to review the status of legislative campaign and then up to the Capitol to lobby the General Assembly

June: Victory Celebration Party!!!



The informational district meetings lay the foundation for involvement by citizens across the state. Between 200 and 400 invitations to the first meeting are mailed to people who have requested energy information from CCAG and to names on mailing lists of people associated with solar and environmental organizations, labor unions, and citizen groups. Callbacks made two days before the meeting ensure an audience of about 50.

CCAG and various grassroots fundraising efforts cover costs of the meetings, which include expenditures for minimal traveling, postage, and phone calls. The programs are held in free halls, schools, or churches which are identified by a community contact and are centrally located within the voting district.

A broad cross section of people attend the first meeting, with about half returning a month later for a direct organizing followup meeting. Many, looking for only basic solar information, drop out after the first meeting.

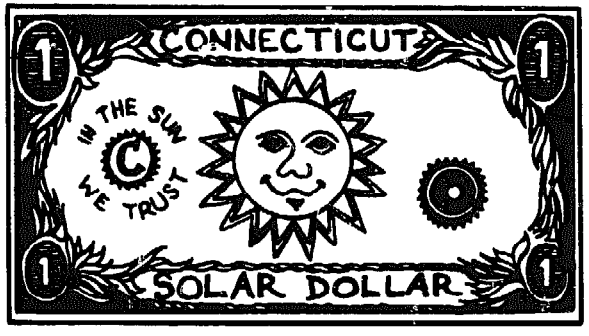
Agenda for First Meeting

- Introductions
- "The Promise of Solar Energy" (slide show)
- Discussion of Solar Coalition Legislative Package
  - —Solar Loans Bill
  - —Incorporating Solar into State Buildings
  - —Property and Sales Tax Exemptions for Conservation Measures and Passive Solar
  - —Jobs and Energy Study
  - —Utility Rate Restructuring
- What Can We Do?
  - —Immediate Action:
    - Group Endorsements
    - Bank Survey
    - Other?
  - —Future Action:
    - Meetings with Legislators
    - Post Card Campaign
    - Other?
- Other Business
  - —Election of Representatives for Statewide Steering Committee
  - —Membership in the Coalition
  - —Next Meeting
  - —Question/Answer Session
- Refreshments

The second meeting focuses on a particular lobbying strategy—in this case, participation in a legislative hearing and a press conference to publicize the group's recommendations. A Solar Dollar campaign is discussed as an effective way to inform legislators of public sentiment on solar bills and to promote support.

Agenda for Second Meeting

- Introductions
- Objective of Coalition for Newcomers
- Discussion of Public Hearing on Solar Legislation, March 5, State Capitol, Hartford
  - —Publicity event prior to hearing
    - Who will attend? (Can we carpool?)
    - How can we get more people there?
    - Will you carry a sign with your group's name on it?
  - —Public Hearing
    - Who will attend?
    - Who will speak?
    - Do we want to invite a legislator(s) to meet with us?
    - Which legislator should we meet with?
    - When can we do this?
    - Who will help organize this?
- "Solar Dollar" Campaign to Promote Solar Legislation
  - Should we include "Solar Dollars" in newsletters, etc., that people can clip and mail to to their legislators?
  - When and where can we set up "Solar Dollar" booths?
  - Other ideas?
- Structure of the Coalition Group
  - Moderator
  - Recorder
  - Spokesperson
  - Dues (Fundraising Committee?)
  - Next Meeting Date
- Other Business
  - Question/Answer Session



Connecticut voters sent "Solar Dollars" to state legislators with the following message printed on the back: "I'm sending you this Solar Dollar to urge you to vote YES on the Solar Loans bill. A Solar Dollar invested in Connecticut is a petrodollar saved. Solar Dollars make sense."

Although CSC's main objective is to organize a state solar lobby, a clear need for increased solar education and outreach surfaced. As staff, time, and funds become available, the group will consider trying to develop an outreach arm.

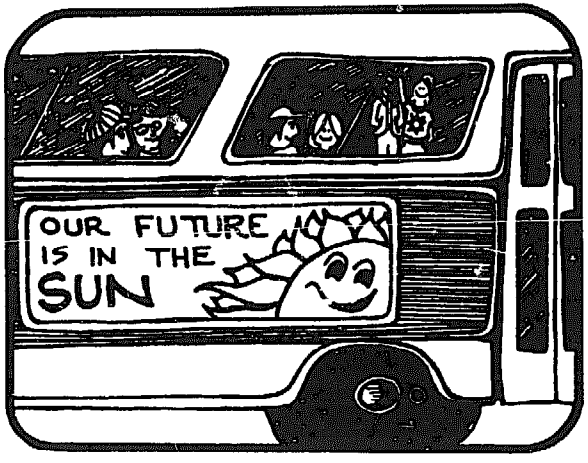
variations on the theme

- Develop a letter-writing campaign through known, sympathetic organizations.
- Cut your teeth on lobbying for **local** legislative action.
- Educate legislators through seminars, information exchange, or brown-bag solar sessions.

- Hold a series of community forums to develop recommendations for a community energy plan. Then take your ideas to legislators.

for more information

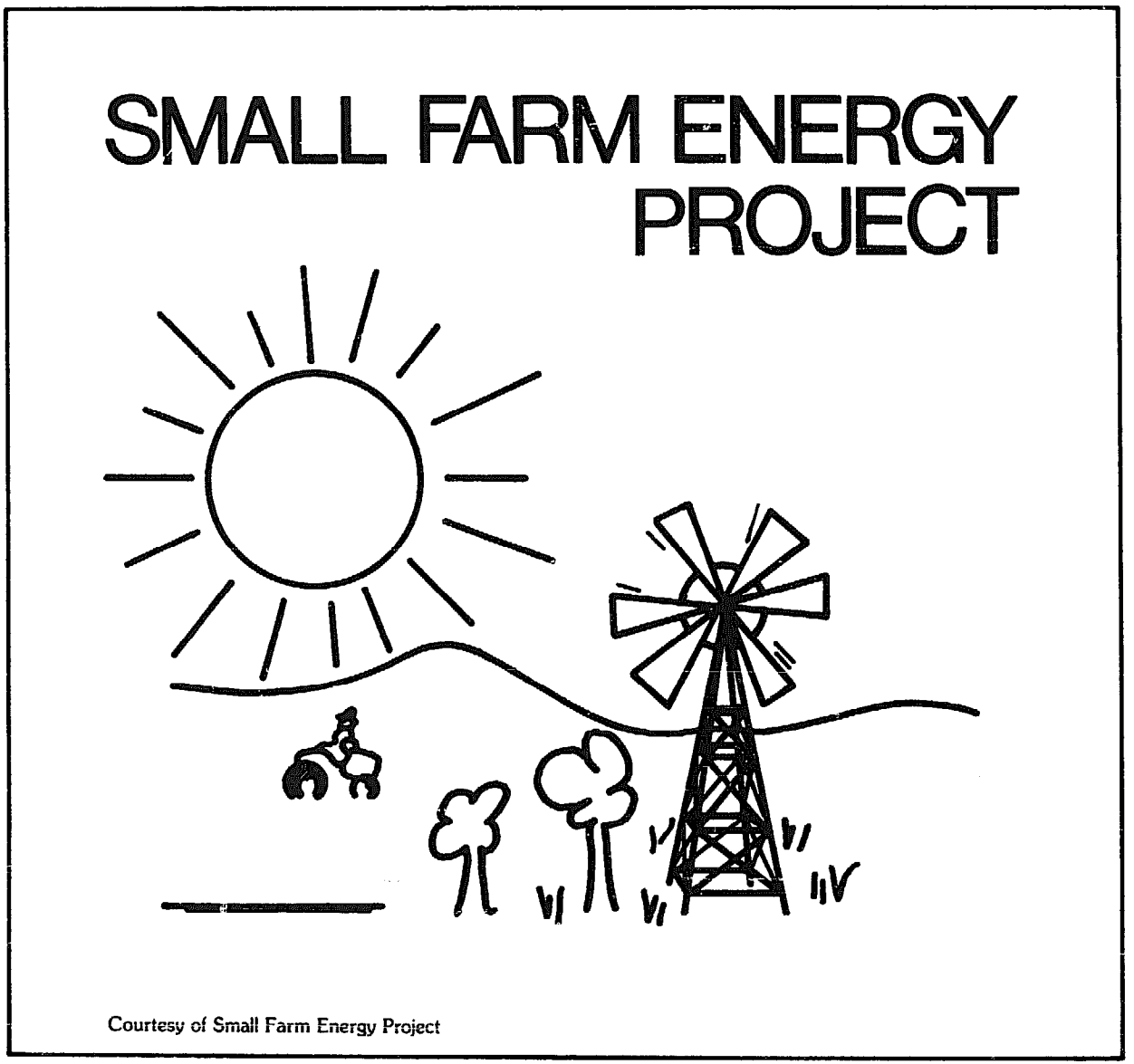
Blueprint for a Solar America p. 142
The Politics of Energy p. 103
Rays of Hope p. 144
State Solar Legislation p. 145



CSC is an offshoot of the Connecticut Citizen Action Group (CCAG). Members include a variety of active energy, consumer, and environmental groups that are focusing their attention on solar action as a potential cure for various common concerns.

Small Farm Energy Project

Center for Rural Affairs
Hartington, Nebraska
Since Spring 1976



Courtesy of Small Farm Energy Project

Owners of small farms learn that the sun not only makes the crops grow, but can dry 'em, fertilize 'em, run the tractor, and keep the family warm.

what made it happen

A three-year, $300,000 Community Services Administration grant
Four full-time staffers
One existing rural organization
Twenty-four innovative farms and farmers
Twenty-four conventional farms for comparison
Rising farm energy costs
Strong belief in small-scale agriculture

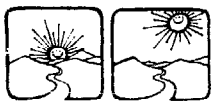
what happened

Twenty-four farms are using appropriate technology in a first step toward the goal of energy self-sufficient farms as the future of agriculture.

recommended for

Audience Type

Organization Type



As a first step toward energy self-sufficiency, 24 farm families in Cedar County, Nebraska, are putting appropriate technology to work with help from the Small Farm Energy Project.

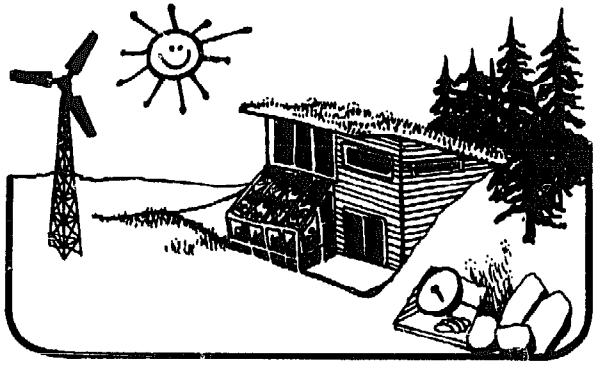
The project, sponsored by the Center for Rural Affairs, has made it possible for owners of small farms to design, develop, and use solar grain dryers, a solar greenhouse, space and water heaters, a wind generator, and other examples of alternative energy technologies.

The project grew out of organizers' concerns that while proven alternative energy technology methods existed on college and university campuses and throughout more populated areas of the country, the information was not reaching farmers and other people living in rural areas.

Organizers further found that farmers were looking for low-technology alternative energy systems they could build, maintain, and repair themselves — reliable, uncomplicated, low-cost systems that carry relatively short payback periods, can be added to existing buildings, and use materials from local sources.

The Center for Rural Affairs applied for and received a three-year, $300,000 Community Services Administration grant for the project. In addition to paying for up to 50 percent of materials costs for the 24 projects, the grant also pays for four full-time staff people who provide technical assistance to the cooperating farmers. Participants also receive a stipend for keeping records of their energy use.

Two groups of 24 farmers each take part in the project. One group is made up of the innovators who build and use the energy-efficient systems; the second group serves as a control by keeping records of energy use in buildings and equipment using conventional energy sources. Comparison of data collected by the two groups indicates the success of the project: applications that don't save energy for the farmers are weeded out of the project over time.



Candidate participants were solicited through letters from the Center for Rural Affairs and selected through an application process. A five-member advisory committee composed of two farmers, a banker, and an attorney made the selection from among 70 applicants.

Farmers chosen to take part in the three-year project own farms averaging about 350 acres and represent varying levels of education, family size, and income. A key ingredient for selection is a willingness on the part of the farmer to explore new ways of doing age-old tasks or to rediscover old ways which had been abandoned with increasing mechanization and once-inexpensive fuels.

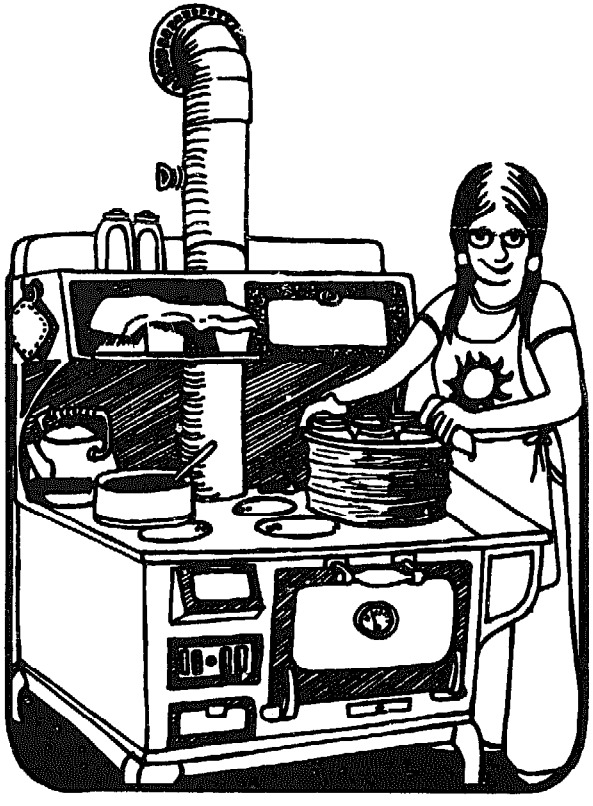
Each of the innovative farmers picks up 50 percent of the cost of materials for his project. Material costs can run from about $200 for an 8' x 8' solar vertical wall collector to under $500 for a solar grain dryer to about $2400 for a 12' x 28' attached solar greenhouse.

In an effort to cut back on the natural gas used in the production of nitrogen fertilizers, one innovative farmer has put to use the windrow composting process. In addition to saving energy and money, the process aids increased retention of nutrients in the soil and allows farmers to process the manure during slow work periods.

Manure is piled in a row off the edge of the field and crop residue or carbon material is added to help aerate the manure and increase nutrient content. Using a front-end loader and manure spreader, the row is turned once a week for four weeks to ensure even digestion and stabilization of the compost. As composted materi[illegible] is

considerably less in weight and volume than uncomposted manure, fewer trips across the field are needed for spreading.

In another project application, a farm family is heating its home with a 240 square foot portable solar air collector which will be used for grain drying in the fall. Another innovative farmer has installed a solar thermosiphon water heater in the dairy barn; yet another family has nearly eliminated its need for propane with an attached solar greenhouse and woodburning stove. Additional innovators are examining the use of alcohol fuels and are experimentinnsulated window shutters and other energy conservation techniques.



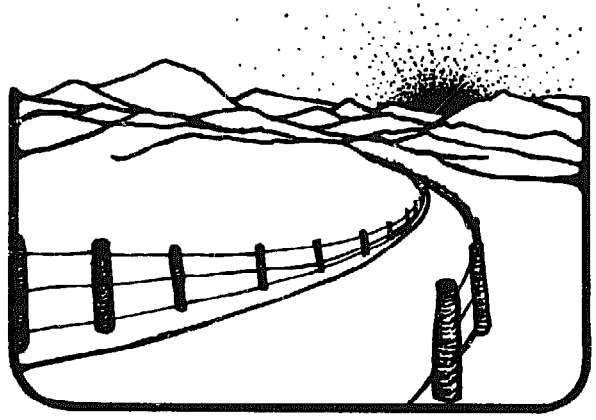
A network of newsletters, informational and construction workshops, reports available through the project, and meetings encourage widespread information exchange among participants and others in the local farming community. Workshops have branched off to other areas of the state, and regional workshops have been held in South Dakota, Minnesota, and Iowa in cooperation with local rural electric associations and energy groups.

The project has also initiated a news column service which provides editors of rural newspapers with periodic results of project activities.

One direct result of the project's success is that many nonparticipating farmers and residents in the area have adapted project ideas for their own use with little or no technical assistance. One such creative resident noted the only discouraging thing about adapting the solar vertical wall collector to his home was that people didn't believe how well the system actually performed.

Solar energy and conservation applications are one way to improve the economic status of the small farmer in America, a group that the organizers see as essential to the economic viability of the nation.

The initial leg of the project, which has gained national and worldwide exposure, has been funded through early 1980. Organizers envision building continuing phases of the project on the experiences of staff and cooperating farmers, and possibly using today's participating farmers as tomorrow's paraprofessional extension agents in Nebraska and adjoining states.



"Our experience working with real farmers on real farms has convinced us that they will move toward energy self-sufficiency if they have easy access to technical assistance, if they are encouraged with some incentives, and if they are not held back by institutional or administrative barriers."

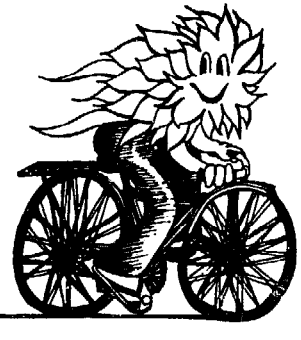
variations on the theme

- Work with farming cooperatives rather than individual farmers and demonstrate there's strength in numbers.
- In an urban setting, develop a similar project for small business owners.
- Get together with your local garden club and start a community composting project.
- Hold workshops on energy-efficient food preservation methods.

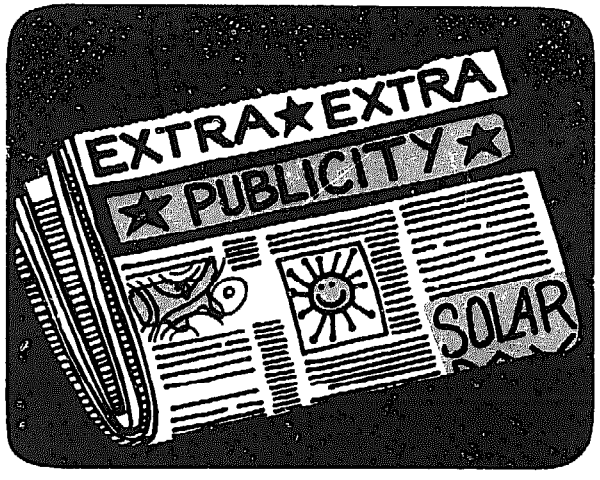
for more information

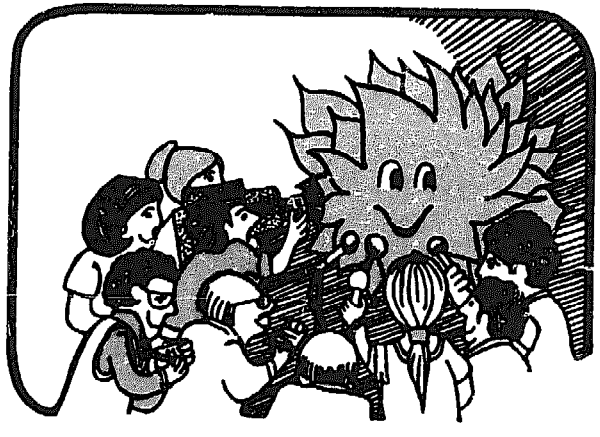
Biogas Production from Animal Manure p. 128
How to Build a Solar Crop Dryer p. 129
Producing Your Own Power: How to Make Nature's Energy Sources Work for You p. 117
Small Farm Energy Project Newsletter p. 156
Wind Power for Farms, Homes, Small Industry p. 103
Sun Power for Farms **(film)** p. 124

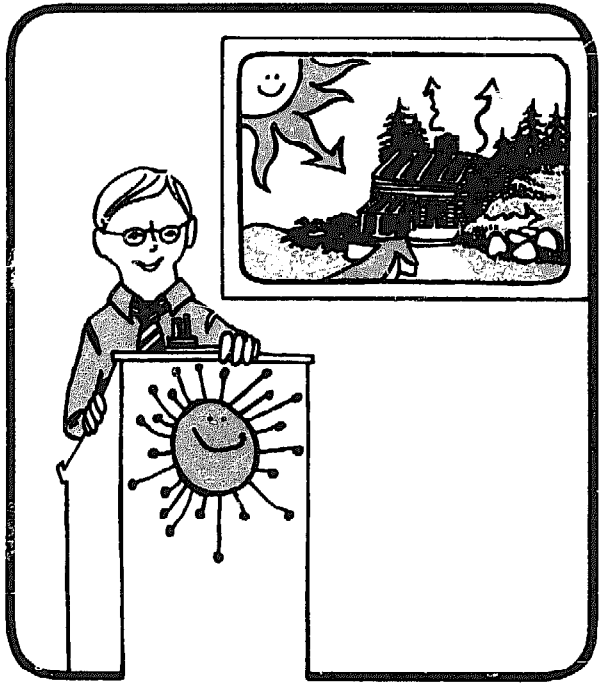
The Small Farm Energy Project is a research and demonstration project sponsored by the Center for Rural Affairs and funded by the Community Services Administration. The Center is a private non-profit organization seeking to address various policy issues and concerns affecting small family farms in Nebraska and the Midwest.



an organizing primer







Whenever people discuss organizing, two schools of thought emerge. Followers of one school insist it's all common sense and requires no special training or preparation, so why bother putting anything in writing? Others view the process as an impenetrable maze of details upon details, encounters with a lot of strangers in foreign fields, and inevitable fumblings of amateurs in professional territory.

This section takes the stand that each philosophy has some merit. For certain people, organizing is almost an inborn talent and they find the whole thing terribly simple. They love dealing with new people every day, they were born with a telephone receiver in one ear, and they're constantly challenged and excited by unfamiliar realms. On the other side of the fence are those who find organizing a terrifying prospect. They'd like to get involved but just have no idea what it's all about.

This section is written for two groups of people: those who were born to be organizers and those who can learn with a little time and practice. If you've never organized a program or event before, the details may boggle your mind, but you will have taken a first step. If you're an old hand at this, the primer will remind you how simple it all really can be.

In either case, it's likely that this section won't provide all the answers you need, but it will surely help prepare you to ask the right questions.

a word about using this section

One basic law of grassroots organizing is "Don't reinvent the wheel; learn from the experiences of others."

In putting together this section, we have practiced what we preach, relying on the many excellent books and pamphlets available on organizing as well as on our collective experience and that of the groups highlighted in **an events sampler.**

We do not attempt in this section to provide detailed step-by-step organizing instructions, but instead give a bare-bones outline of key organizing concepts to be used in a check list fashion. For more details on any particular aspect of organizing, see the **guide to selected resources.** We have identified some particularly applicable references in the text.

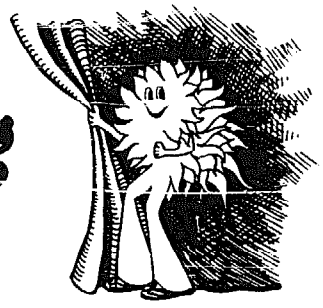
Generally speaking, organizing solar energy events is no different from organizing political campaigns, social, school, or environmental events. Subject matter changes, but the methods remain the same. You can transfer any organizing experience or expertise to your new energy effort.

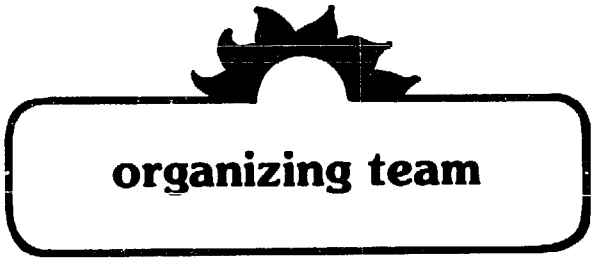
The information in this section is presented more or less in the order you would follow in organizing an event. Doing things in the exact order is not as important as being sure that you have considered all the concepts and have determined their relative importance to the success of your particular event. Your local situation may even call for details we haven't covered here.

As in the first section of the book, we have provided some samples of useful concepts. These examples are not intended to represent the perfect press release or timeline or fundraising letter or flyer, but they illustrate many of the "dos and don'ts" of effective communication.

The most important aspect of good organizing may be something we don't even cover on the following pages—the need to continually renew your enthusiasm for what you are doing. Never stop looking at the organization of your event for what it is—a great opportunity to get to know people who share your interests and possess knowledge and skills you can learn. In turn, you can pass on a skill or talent to someone else. Create ways to relax and be sociable when the work is done, and proceed with excitement at all times.

presenting





organizing team

Probably the major element of the success of any event is the effectiveness and hard work of the organizing team. No matter what other talents the individual members have, the most important one each should possess is that he/she can be counted on to get the job done.

This team is responsible for defining the objectives of your event and ensuring that each part of the plan is implemented properly. Be sure that it includes people who can give the necessary time and energy and who represent the major audience segments you will try to reach.

Many an event has fallen far short of the initial goal because of runaway enthusiasm that didn't take into account the organizing team's ability to pull it all off, the amount of time remaining before the event, or the ability to acquire necessary funds or in-kind services. No matter how pressing you feel the need is for a particular event in your community, be realistic about what you can do with the resources available. Nobody will be convinced of the importance of your message by an event that promises more than it actually delivers.

In any gathering of people, there are likely to be occasional tensions that arise from differences of opinion about what the event should be, how certain aspects should be treated, or who should be responsible for particular activities. These differences needn't create problems if they are seen as part of the creative process—a key element of organizing any event. As long as the people on the organizing team are willing from the beginning to work together to reach amicable solutions, these differences can offer valuable lessons in group dynamics. You will find they even add to the pleasure of sharing an experience with a group of people who are likely to become good friends by the time it's all over.

Members of the organizing team should never plan to do all the work of the event themselves. Knowing how to use volunteers wisely is a very important aspect of good organizing. The nitty-gritty work should be parceled out to a number of committees and the organizing team freed to act as a planning group. Delegation works best if the tasks to be accomplished are well-defined.

To get more members involved in your organization's activities, create jobs that match varying schedules, skills, and capabilities. Does one of your members have particularly good connections with a group you want to involve in cosponsorship? Does someone have a truck for moving materials for hands-on workshops? Does someone really enjoy making people feel at home at the registration table, membership booth, or coffee table? Are there a lot of students who could get course credit or a simple change of routine by helping out? Does someone live near good places for displaying posters?

Sometimes it will seem easier to do everything yourself than to delegate the responsibility to someone else. Fight the temptation and take every opportunity to let other members of your organization feel like they are a part of what's going on.

An important aspect of team organization is the preparation of agendas for your meetings. No matter how grassroots you are, no matter how laid back and mellow your people, a prepared agenda for planning sessions provides that minimal structure you need when time becomes precious.

sample agenda for team meetings

- Reports from each committee
- What has been accomplished? What remains to be done?
- Discussion/critique of how things are going

You should establish a schedule for team meetings early on. Meeting at the same time and place is helpful.

Here is a list of committees you may want to consider using, with a member of the organizing team taking the lead for one or more.

- Budget
- Fundraising
- Publicity
- Registration
- Arrangements/Logistics
- Clerical support
- Volunteer coordination
- Networking with other groups
- Clean-up

during the event

Keep things running smoothly. Straighten out any rough spots.

for more information

Working Together: Group Process and Decisionmaking p. 154

Every group will solve this need differently. Some teams work well together without an obvious leader, but most seem to find that a good manager or team leader will keep things moving toward the final goal with more success. Some people are good at planning, others are good at doing things, still others are good managers.

important qualities of a good team leader

- Exhibits strong leadership qualities—has the ability to help the group renew its enthusiasm for what it's doing when things look tedious or rough
- Delegates well—encourages team members to expand their capabilities and learn new leadership and content skills
- Works well with people and assists them in working well with each other
- Communicates effectively
- Is available at any time to make decisions
- Is willing to make decisions that others avoid

duties of a team leader

- Conducts team and general meetings
- Develops a process for making sure everyone has an opportunity to get his/her ideas into the development of the event
- Is alert to making sure available time is used effectively
- Establishes and maintains communications with committee chairpersons to assure that:
  —A timetable is established and followed
  —Spending is approved and accurate records are kept

for more information

Leadership is Everybody's Business: A Practical Guide for Volunteer Membership Groups p. 152

Good events, like good wine, take time. Almost any event can be accomplished by even the youngest, most inexperienced organizers if they begin planning early enough. Before you get in too far over your head, consider these tips:

- Talk to experienced organizers in your group or community if you are new to all this.
- Recognize your limits and plan accordingly.
- Prepare a timeline so that you know exactly which activities have to be completed at which points along the way.

One thing to consider early in your planning is the needs of your intended audience. Do audience members need general information or are they ready for an energy planning exercise? If your program will include speakers, which ones are going to be the most credible to your audience? Do you need to send special invitations to ensure a good turnout, or will general publicity do?

If you are planning an event that will appeal to your community as a whole, ask yourself: Are the residents mostly seniors or children? Are they active citizens or apathetic? Is your climate known for extreme heat or cold? Are homes old and poorly insulated? Are fuel costs excessively high and going higher? Is air conditioning a staple in the summer? Do people have free time mostly in the evenings or on weekends—would a series of evening events be more appealing or would they be more likely to attend a cram-packed weekend? Would residents prefer fun activities like fairs and summer outings, or more serious discussions?

Don't forget to check other activities in your community before setting the date for your event. Is there a Little League tournament or high school graduation at that time? Is the season appropriate to the topic? Do paydays fall at a particular time of the month and influence how people use their free time? Will your activity compete with an event being held by another group whose support you are also seeking? Is an event being planned that you can add on to and thus raise attendance at your event? Your local newspaper and other major community groups are good places to check before setting the date.

sample pre-workshop questionnaire

Return To: Organization Headquarters A.S.A.P.
P.O. Box 1
Town, State 80411

Pre-Workshop Questionnaire

Name _____ Phone _____ Do You Own ____

Address _____ Rent ____

A workshop has been outlined which would follow a logical step-by-step progression from energy conservation measures to possible solar application. It was felt that before any solar application is possible, rigorous energy conservation measures would have to be taken. The workshop has been conceived as a way for people starting with minimal knowledge about energy conservation and solar to learn enough through sequential modules so that at the end of the workshop they would be able to make informed and cost-effective decisions about how to insulate and otherwise conserve energy in their homes, and how to justify the cost of a solar system for their homes. If you would be willing to work with one of the committees please circle the committee.

COMMITTEES	HAVE AN IDEA	HELP ORGANIZE	PROVIDE WRITTEN MATERIALS	PROVIDE PHYSICAL MATERIALS	OTHER
OVERALL					
A. Instructor's Handbook					
B. Logistics					
SECOND WEEK					
7. Hands-on Solar Construction					
8. Project Evaluation					
FIRST WEEK					
1. Energy Conservation Costing Methods					
2. Insulation Materials and Tools					
3. Hands-on Energy Conservation Techniques					
4. Project Evaluation					
5. Justifying Solar Costs					
6. Solar Principles, Material, and Technology					

2. Would you be interested in attending such a workshop? ____ yes ____ no

3. The tentative schedule would be as follows for 2 consecutive weeks:
Thursday and Friday evening from 7-10 p.m.
Saturday 9 a.m. - 4 p.m. with a box lunch
If this is an impossible schedule for you, please describe what would serve you better.

4. What is the total maximum amount of money you would be willing to pay to participate in this workshop?
____ $20 ____ $30 ____ $40 ____ $50 ____ $60 ____ $70 ____ $80

5. Would you prefer to have the option to attend only certain segments of the workshop? _ yes _ no (Please review introductory paragraph in responding to this question.) If yes, which segment would you be interested in, and how much would you be willing to pay to attend those segments?

6. a. Would you be willing to make your house available for a hands-on workshop in energy conservation techniques? _____

b. How much would you be willing to spend to provide materials to be installed by workshop participants for making your home more energy efficient? _____

c. Would you be willing to bring tools (for example, hammer, cutter, pliers, caulking gun, etc.) to use in the "insulation" hands-on workshop? (A complete list of necessary tools will be made available before the workshop.) _____

Do you have tools you would be willing to lend to others for this purpose?
____ NO ____ YES - - List:

7. What types of solar equipment would you be interested in constructing?

_____ Flat-plate Collector System (air)	_____ Awning
_____ Flat-plate Collector System (Water)	_____ Solar Food Dryer
_____ Solar Hot Water Heater System	_____ Solar Greenhouse
_____ Storage Subsystem	_____ Concentrating Collector System
_____ Distribution Subsystem	_____ Bead Wall

_____ Other (describe)

8. a. Would you be willing to make your house available for a hands-on workshop in building solar equipment? _____

b. How much would you be willing to spend to provide materials that would be used by workshop participants to construct a solar device for your house? _____

c. What type of solar device would you be interested in? _____

d. Would you be willing to bring tools to use in the "solar" hands-on workshop?
(A complete list of necessary tools will be made available before the workshop.)
Do you have tools you would be willing to lend to others for this purpose?
____ NO ____ YES - - List:

9. Do you have any suggestions for possible locations for holding the workshop?

10. Should nonmembers of the organization be charged a higher fee? ____ NO ____ YES
____ 10% ____ 20% ____ 50% ____ %

11. If you have materials (building and insulation especially) you would be willing to contribute, or tools you would be willing to lend for any segment of the workshop, please list below:

Materials	Tools

What are people interested in?

Call for volunteers

What can people afford?

Solicit contributions/loans

sample timeline

This timeline shows relative time frames for carrying out crucial organizing tasks. The exact amount of time from start to finish will depend on the specific kind of event being planned.

Begin	2	3	4	5	6	7
Organizing team meets to decide content, goals, audience of event. Establish schedule for ongoing team meetings.	Identify committee chairpeople and specific responsibilities/ establish deadlines. Estimate budget/in-kind service needs.	Begin to identify and invite speakers, instructors/exhibitors. Select and reserve meeting place. Identify alternate site in case of rain/larger audience. Select a date. Put together mailing/posting list for brochures, press releases, locations for posters.	Identify and contact other groups to cosponsor. Identify and contact possible sources of funds/in-kind materials/services. Have tax-exempt status letters available.	Let speakers/ instructors/exhibitors know what is expected of them either by mail or at a group meeting. Send confirmation letters to cosponsors/funding/ in-kind contributors. Determine hand-out materials, film rental. Collect materials, prepare packets.	Once date, location, and program have been finalized, begin publicity activities. Begin making up list of all equipment/materials/supplies/tools that will be needed and obtain them through purchase, in-kind sources, rental, or recycling.	Design promotional brochure/poster/ press releases. Be sure to list sponsors and major contributors. (See samples in publicity section.) Set up preregistration procedures. Arrange for needed phone coverage to handle registration and event questions.
8	**9**	**10**	**11**	**12**	**During**	**After**
Get publicity printed and distributed. Make sure this is out at least a month ahead of time. Hold press conference if appropriate.	Increase organizing team meetings. Phone contact will be needed now to handle registration and event questions.	If event will have media appeal, contact TV/radio stations for coverage of actual event.	Send out news releases/PSAs. Finalize event logistics, assign responsibility for major activities. Check out materials/ equipment to make sure you have everything and that it is in good condition.	Make final contact with speakers/instructors/exhibitors to make sure they're still coming and understand what is required of them. Have them let you know their needs for equipment/space. Deliver matrials/ tools/equipment to actual site.	Make sure someone is available to run last minute errands for things left behind, forgotten, or in insufficient quantities. Document the activity with photos, tape recordings, evaluation sheets.	Return all rented/borrowed items. Clean-up space. Send thank you letters to everyone who helped out. Evaluate success of event. Make a list of things you'd do different the next time. Celebrate!

for more information

Energy Teach-Ins p. 150
How to Plan an Environmental Conference (LWV) p. 159
Workshop Planner p. 154

support

Energy, especially solar and renewable energy, is a topic that is on everybody's minds these days. More and more, groups outside the traditional solar activist community realize the value of a solar/renewable society. As you develop your program ideas, it's up to you to show the members of your community—the seniors, the homeowners, the unemployed, the unions, the bankers, the city officials—what energy conservation and solar can do for them.

Many new groups, especially those with very specific causes, tend to look inward too much, ignoring the many folks available to join forces with them. If your group is pretty homogenous with regard to age, education and income, who will carry your message to others? How will you involve minorities (or majorities), seniors, young people, businesses, educators, and others who could benefit from your activity?

Don't overlook anyone as a potential supporter. Key support and workers may come from surprising quarters. There's strength in numbers, and a broader base of support will always make for a broader, larger, and more enthusiastic audience.

In addition, don't feel you must always put on an event in isolation from other things that are going on in the community. The annual home and garden show may be a great place for exhibits about solar energy and energy conservation. Having kids construct solar cookers or food dryers at an arts and crafts fair may be perfect for showing them the benefits to be gained from the sun. What about the county fair, homecoming, or fundraisers for other organizations having broadbased community support?

Reach out to:

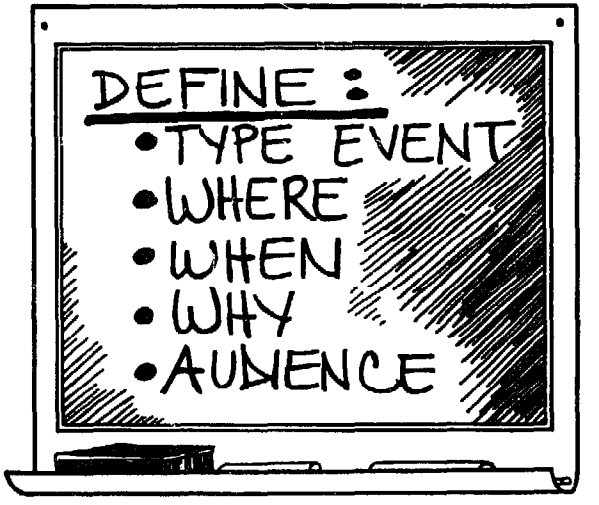
- Solar and environmental organizations
- Youth groups
- Neighborhood associations
- Religious organizations
- YMCA/YWCA, PTAs, school boards
- Libraries
- Community colleges
- Adult education programs
- Special interest groups
  —low-income, seniors, labor, consumers, minorities, taxpayers
- Elected officials, public servants
- Community service groups
  —Elks, Lions, Optimists, Rotarians, Junior League, Assistance League, League of Women Voters
- Women's groups
  —American Association of University Women, National Organization for Women, Associated Women's Clubs
- Business associations
- Chambers of commerce
- Utilities

the event agenda

The most important step your team will take is determining exactly what type of event you want to put on. The samples given in the first section of this book should help you in this area.

Selecting the audience for your event will influence all the other program details, so consider that first. There is one rule of thumb that applies to all neighborhoods: with costs increasing daily for food, fuel, and electricity, and with incomes barely keeping up, any event suggesting ways to stretch dollars has a good chance of success.

Finally, think about your organizing team and available volunteers, and their limits.



What can you actually accomplish, given the potential to assemble a work force and a certain amount of money?

It's not important to put on an extravaganza as your first event. What is important is that you put on a good solid event regardless of its size. A small beginning enthuses people and helps to build the forces for increasingly challenging activities.

You need to define:

- What (type of event and size)
- Where, why, when (don't forget a rain date for outdoor events)
- For whom (audience)
- By whom (your group or coalition)

Be sure these details are tied down before you begin your fundraising and publicity activities. If you plan to use special organizing guides, rented films, or handouts in organizing your event, allow plenty of lead time to receive the material. Materials sent Book Rate travel very slowly.

for more information

Handbook of Special Events for Non-profit Organizations p. 151
Planning, For a Change: A Citizen's Guide to|Creative Planning and Program Development p. 152

budgets (dollars and in-kind)

When selecting people to handle your budget, combining the thoughts of both budgeteers and fundraisers tends to produce a more realistic budget. Build your budget around these sample categories, trying to estimate as factually as possible. Assume that all items will cost you something, even if you later find you can trade off with in-kind services or donations. Set budget priorities clearly. If the money isn't raised, what goes first?

With a fairly firm listing of budget categories in mind, explore the wonderful world of in-kind services. First, talk to your own communities—which volunteer workers can type or have access to copy machines, phones, supplies, or space?

Next, look to local businesses for help. A printer sympathetic to the cause might print your flyer at no cost or for the price of paper alone, especially if offered a special credit line or other public recognition. People without cash to make donations or personal time to lend support find this a good way to demonstrate their empathy.

A library or local school might lend audiovisual equipment; a utility might provide office space or supplies. Sometimes you may want to offer free memberships or admissions in return. It's not always necessary, but it doesn't hurt if you can afford it.

sample budget items or in-kind alternatives

- Printing/Typesetting
  Can you type it and run off copies yourself instead?
- Postage/Bulk Rate Permit
  Can you hand-deliver or borrow another sponsoring group's permit for mailing? (Don't forget you'll need volunteers to do all that zip code sorting!)
- Facilities Rental
  Can you find a free space to use?
- Telephone Answering Service
  Can you find some volunteers to staff phones at all times? Can you borrow a phone-answering tape recorder?
- Registration Materials
  Can you get some office or store to donate these?
- Copying
  Does one of your committee members have access to a machine at work or school?
- Equipment Rentals
  Can you borrow from schools, libraries, community centers?
- Tools/Materials
  Will a local store donate these items?
- Instructors' Fees
  Can you find people willing to work for free, or will someone else offer to pick up the tab? Perhaps your volunteers can house out-of-town instructors.
- Refreshments
  Wouldn't homemade do just as well? Maybe a restaurant or food store would provide a discount.
- Scholarships
  Are there people who want to attend but can't afford the admission?

- Travel
  Can you find people close to home who will be as big an attraction as a distant celebrity?
- Film Rental
  Does a cosponsor have a good film you can borrow?
- Handouts
  Can you find free or inexpensive materials? Does a cosponsor have access to bulk quantities?
- Paid Staff and Benefits
  If you need them or have them, plan for them. Maybe a business or public office can donate someone's time instead of money.
- Liability Insurance
  This is a must for large hands-on events.

after the event

Be sure to figure out what the event actually cost so you can plan better the next time.

Any event is likely to require some cash outlay. If you have an adequate or even healthy checking account, you're one step ahead of the game. If you don't, you will need to become involved in direct fundraising efforts and in-kind possibilities.

A key to fundraising is this: some people do it well, some don't. Look for people who understand the importance of the event and its budgetary requirements, are comfortable meeting with prospective donors, and can clearly and persuasively state what is needed.

Some people couldn't ask for money if their lives depended on it. Others will turn people off with pushy, aggressive behavior. Choose your fundraisers wisely. Select people who can appeal to various groups and who may already have contacts.

A tried and true approach is to ask for donations for a specific budget item. Take a copy of the budget; people like to know exactly what they are buying. It's appropriate for a hardware store to kick in $100 toward the purchase of tools, a local civic group to offer another $100 to cover the cost of supplies or office space, or the local or state energy office to provide speakers or handout materials.

If you are turned down for a cash donation, come right back with a request for an in-kind service of some kind. If donations are tax-deductible, be sure to stress that. Many small businesses may not contribute without the tax incentive.

Be sensitive to the fact that many potential donors are approached daily for donations of one kind or another. Make clear how their donation of funds or in-kind services can benefit them. Always show a willingness to provide additional information to assist them in making their decision.

Anyone who ever attended elementary school is familiar with the fundraising events that work so well. Bake sales are classic, but don't forget a vintage or solar film festival, cocktail party, car wash, marathon, or dance. Choosing the proper event is largely dependent on the makeup of your neighborhood. Sale of buttons, t-shirts, or books is another way to make some fast money, but probably requires an ongoing commitment of staff or volunteer time.

Don't overlook funding sources who you feel are on the other side of the fence. Your event may provide local utilities or other conventional energy companies with an opportunity to reassess their images in the community and create an atmosphere for future dialogue on solar energy and energy conservation topics. Such organizations can be good sources of funds, equipment, and in-kind staff or materials. No matter who you are able to interest in supporting your event, make it clear that you will maintain control over the content.

If you have the time and a little more expertise, look for funding from foundations or ongoing local, state, or Federal government programs. Probably, though, it isn't worth the work for budgets under $500. If your needs are greater, or represent part of an ongoing project, you may do well to contact these groups. An important thing to keep in mind in pursuing these sources is that their decision processes may require 3 months or more and a fair amount of documentation on your part. Be prepared for the wait, and don't purchase anything until you have the money in hand.

for more information

The Grass Roots Fundraising Book p. 104
Preparing a Proposal for a Private Foundation: Some How-To-Do-It Suggestions p. 153

sample letter of solicitation for support

Date

Name

Address

Dear :

We understand that your organization may be interested in helping support an Energy Conservation Workshop being jointly sponsored by the Local Solar Energy Association (LSEA) and the State Energy Institute (SEI). We are very pleased that you are interested in joining in the support of what we feel is a unique approach to teaching energy conservation skills.

The workshop is designed to instruct people in energy conservation economics and to provide them with the opportunity to acquire appropriate skills (see attached description). We plan to put on a similar segment in the spring on the economics and skills of solar energy.

Also, to give you some background on the LSEA, you may be interested to know that it is a very new organization, having held its first organizational meeting 6 months ago. We intend it to be a statewide organization that will appeal to a wide variety of persons interested in solar energy and energy conservation. Its main purpose is to serve as an information exchange and educational organization promoting energy conservation and the use of solar and other renewable energy sources.

We are approaching a number of organizations to ask them to contribute money or materials to support the workshop. We will be putting out publicity on the workshop which will detail the names of all contributors. The names of those who contribute will be listed in the following manner:

Cosponsor—those who contribute $500 or more
Contributor—those who contribute $250-$499
Donator—those who contribute up to $250

Attached also is a suggested donation letter which you may wish to use in forwarding your tax-deductible donation.

Please get in touch with Sol Coordinate of our office at 123-4567 if you have any further questions.

Sincerely,

Name

Show your enthusiam

Describe the event

Introduce your organization

Future plans indicate credibility

What's in it for them?

Important considerations

Contact for followup

sample thank-you letter

Date

Address

Dear :

Thank you for your quick response and your generous support of our workshop. I speak for all the members of the Local Solar Energy Association in thanking you for this expression of concern about home energy use. As you are probably aware, the average homeowner can save a significant amount of money on his/her utility bill with home winterization techniques. We intend to teach people how to do this in our workshop. Our local Community Action Program has provided us with homes to work on. Workshop participants will winterize these houses during the hands-on session of the workshop.

I'm enclosing a brochure to tell you a little more about our workshop. Again, thank you for your support.

Sincerely,

Name

speakers/instructors

The most important things to keep in mind when selecting a speaker are the makeup of your audience and the message you want to get across. A nationally known public figure might not have a lot to contribute at a hands-on workshop but could offer motivation for a community energy planning exercise. Is your purpose to wake people up to the energy in their own lives, to help them understand the different sides of an issue, to help them learn new skills or acquire new information, to set up problem-solving exercises? What kind of speaker or instructor would best meet that purpose?

If you can bring a nationally known actor or actress to town for solar energy, chances are the whole town will turn out. Your trick is to figure our how to fill the house without all the trouble and with someone who can get the message across for your particular kind of activity.

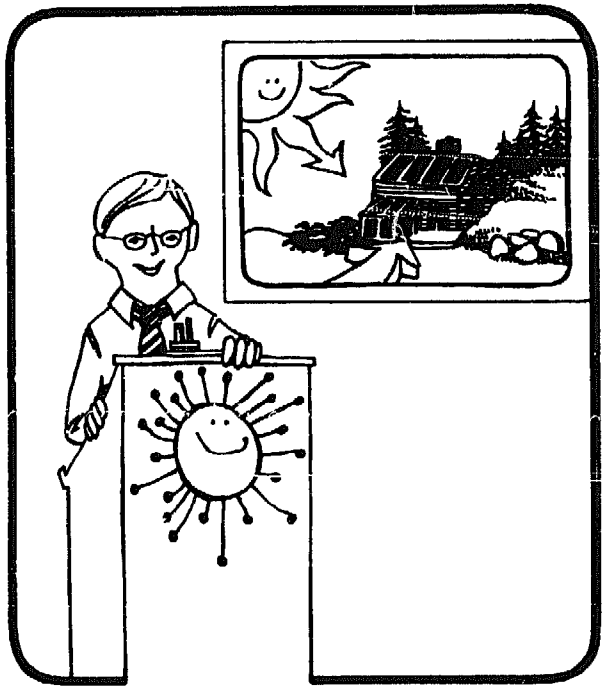
things to keep in mind when selecting speakers/ instructors

- Can they really deliver the kind of speech/instruction you are after?
- Are they effective speakers/teachers who know how to use visual aids and the English language?
- Do they have a political or technical ax to grind; and if so, will it add spark or detract from your purpose?
- Are they nearby or will you have to cover travel costs?
- Will their presence ensure a larger turnout and perhaps generate some income for your organization, or will their fees exceed the income?
- Are they people who are likely to be at home with your particular audience and vice versa?

The cost of your event can vary greatly if you must pay speakers' fees, travel, and lodging. Try to find people who can draw and who are willing to speak for free or for a minimum charge.

sources of speakers/ instructors

A good place to start would be the organizations listed in the resources section of this book, particularly the ones for your state. Other general sources are identified below.



Solar energy associations
Appropriate technology groups
Alternative energy groups/firms
City, state, regional, Federal energy agencies
Professional organizations
- homebuilding
- engineering/architectural
- heating, ventilating and air conditioning

Cooperative/energy extension services
Elected officials
Bankers
Educational institutions
Research firms or labs
Local utilities
Nationally prominent spokespeople

Once you have chosen your speakers, be sure you give them all the logistical details for your meeting—how long to talk; how long to allow for questions and answers; exact location, date, and time; and audiovisual or other equipment they will be needing. If speakers come in from out of town, you may want to find a volunteer to meet them and make sure they get to the right place on time.

during the event

Be sure to have someone on the logistics team check with speakers when they arrive to make sure that their slides are in carousels, that their movie is threaded on a machine, or that they have all the tools they need for a hands-on workshop.

sample letter to workshop instructors

Date

Name

Address

Dear :

I'm writing to thank you for supporting our Energy Conservation Workshop by agreeing to speak about styrofoam insulation at our Friday evening segment, February 22, 1980. As you can see on the enclosed brochure, this session will be held at 7 p.m. in Room East 116, University Tower Building, 14th & Main Streets.

I have asked several speakers to the workshop in an attempt to cover the major types of insulation available to homeowners, including cellulose, fiberglass, rockwool, and styrofoam. I also hope to have some literature on urea formaldehyde and/or urethane, but have not included a speaker on these because they are not do-it-yourself materials.

A representative from Public Utilities Company will also speak on home energy conservation, and a local research firm will present a slide show on winterization techniques (caulking, weatherstripping, storm window installation). Following these presentations, samples of tools and materials will be available for participants to examine and try out.

I have allowed 15- to 20-minute time slots for each major insulation type. I hope you will be able to include information about the R-value and cost of styrofoam insulation in this time.

We expect an audience of over 50 people. Also, you may wish to allow time for questions and answers if you will not be able to stay for the informal period following the presentations. If it's possible for you to remain for this period, it will be an ideal time to answer questions on a more personal basis. Please bring samples of your insulation for display at this time, whether you plan to stay or not. (Samples can be returned if necessary.)

Thanks again for your support. If you have any questions, feel free to call me at 234-5678.

Sincerely,

Name

Time and place

Length of presentation

Information to cover/bring

Question and answer period

Contact name and number

after the event

Most speakers and instructors appreciate both a thank you and a critique of their effectiveness in assisting you accomplish your purposes. A letter or phone call shortly after the event is a good way to wrap things up.

Someone with a real eye for detail is exactly what you need here. The committee or person in charge of this area is responsible for choosing a site for the event, lining up enough volunteers or staffers to carry out necessary jobs, and buying, renting, or borrowing the necessary equipment.

In addition to looking for a site that offers what you need in a pleasant environment, you probably want to find a place you can use for free. However, even though you plan to find a free or donated space, build a site fee into your budget just in case you need it.

Hotels and some restaurants often give free meeting rooms if they expect to receive additional lodging or meal business as a result of your conference or seminar. Otherwise, you're better off looking to public buildings or other spaces that charge little or no fee.

Possible meeting places (depending, of course, on your event) include community centers, churches, universities, public schools, local libraries, union halls, granges, fairgrounds, or parks. If you plan to build something in the course of your event, a warehouse or large open space is necessary.

If your event will bring together people from different groups, neighborhoods, or persuasions, look for a place with a "neutral" connotation. Certain people may feel uncomfortable coming to a space associated with someone else's "turf."

check list for site selection

- ☐ Is your site well-known in the community? Is it easy to find?
- ☐ Can the room be expanded or made smaller if necessary?
- ☐ Is there additional space for a registration area, displays, storage, and break-up into small groups?
- ☐ If you plan to serve refreshments, is there a kitchen?
- ☐ Are there restrooms and a telephone?
- ☐ Are there childcare facilities if needed?
- ☐ Is the site accessible by public transportation, bike, or foot?
- ☐ Is there sufficient parking? Will you create any traffic hazards?
- ☐ Do you have an alternate site in case of rain?
- ☐ Is the location accessible to the handicapped?

for hands-on workshops

- ☐ Does the site have access to sufficient electrical power?
- ☐ Is the space big enough to accommodate several working groups of 15 to 30 people plus materials and elbow room?
- ☐ Is the site close to a hardware store in case you need any last-minute items?

general check list

- ☐ Handout materials—printed, collated, stapled, and ready to go
- ☐ PA system/microphones
- ☐ Spare slide carousels/bulbs
- ☐ Extension cords
- ☐ Projector screen
- ☐ Someone assigned to operate all equipment and lights
- ☐ Tape recorders
- ☐ Blackboards/chalk/erasers
- ☐ Flipcharts and pens
- ☐ Pointer
- ☐ Chairs/tables/desks
- ☐ Restrooms
- ☐ Telephone
- ☐ Coat rack/hangers
- ☐ Tools/materials
- ☐ Registration table(s)
- ☐ Literature table(s)
- ☐ Coffee table(s)
- ☐ Message board
- ☐ Badges
- ☐ List of nearby restaurants and their prices
- ☐ Emergency phone numbers
- ☐ Food/drinks
- ☐ Is all equipment in good working order?
- ☐ Is someone assigned to open, set up, clean up, and close the facility?

The only way to be sure you make all necessary arrangements is to make check lists—lots of them. Collecting the check lists into a loose-leaf notebook is another good idea, but make extra copies in case the original disappears.

Go through the event step-by-step, nit-picking as much as possible. Start with things like scissors, paper, tacks, pencils and work up to larger items. Be prepared for emergencies and breakdowns. Remember Murphy's Law: "If anything can go wrong, it will." If you can get your group together for a dress rehearsal or dry run, it will probably be worth the effort.

hands-on tips

It's no easy job for an inexperienced group to pull together a 2 or 3 day hands-on workshop. Many of the organizations or people who have sponsored workshops now offer consulting or instruction services. It will be worth the money to put some of that expertise to work or to use guides and manuals which have grown out of the events.

If you're planning a hands-on workshop, you'll run into some very special organizing needs. Most important is insurance. With 20 or 30 people wielding hammers or saws, there's always a possibility that accidents will occur. Check the laws for your jurisdiction. You're not only protecting your participants—you're protecting yourself.

Another form of self-protection is checking with local building officials and obtaining any necessary permits. You might also want the home/building owner to sign a waiver releasing you from responsibility if something goes wrong. It is also a good idea to draw up a contract between your organization and the home/building owner specifying exactly who is responsible for what and what final product you will leave behind.

If you are going to build something like a water heater or greenhouse, there will be a lot of work that needs to take place before the actual event. A house must be selected, the system designed, and a list of necessary materials made up (these can be purchased by either the homeowner or the organizing group). For greenhouses, the foundation must be poured, inspected, and cured before construction begins.

All purchases should be made ahead of time and inspected by instructors to make sure materials are on-hand and not defective. Is your organization providing the tools for the workshop? Be sure that they're clearly marked, and keep close tabs on their whereabouts. If participants bring their own tools, suggest that they take the same precautions.

Using recycled materials is a great way to cut your costs, but they should be chosen carefully so as not to affect the useful lifetime of your project.

Finding recycled materials is like going on a grown-ups' scavenger hunt. There are some obvious places to look, but your community may have some unusual possibilities that you can find with a little sleuthing.

sources of recycled materials

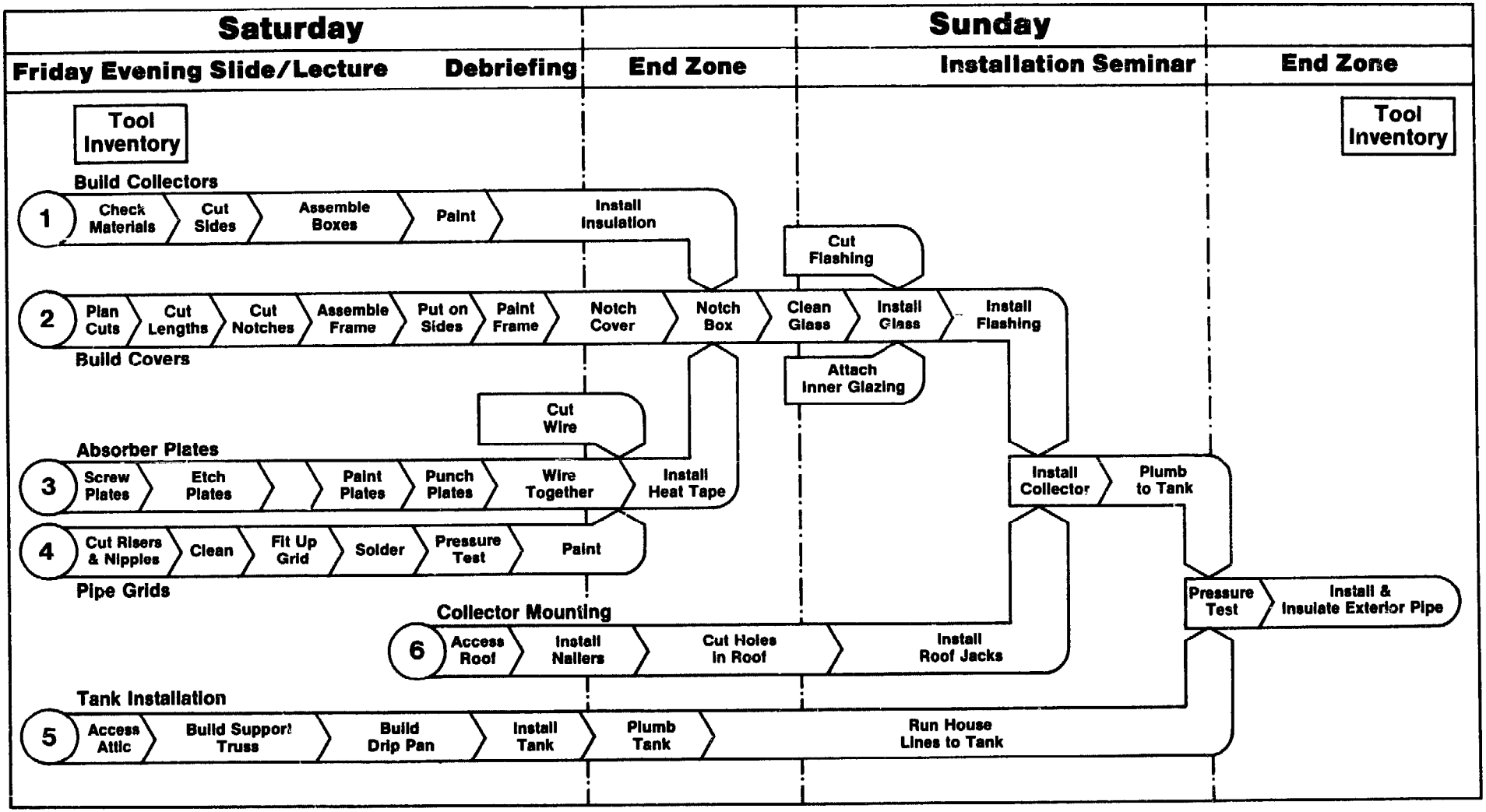
- Junkyards, alleys
- Garage/yard sales/country auctions
- Your basement/garage/attic
- Your friends' basements/ garages/attics
- Manufacturing/wholesale/ retail firms (scrap or unsalable materials)

A low instructor to participant ratio is an important consideration for a hands-on event. Between 5 and 10 participants per instructor is a good ratio to ensure that all have the opportunity to learn the skills they came to learn.

If your instructors are skilled craftspeople, but have never put on this kind of a workshop, it's worth having a dry run with your organizing team to make sure you can accomplish what you've set out to do in the time alloted. The exact sequencing of workshop activities and the division of labor among teams or crews need to be figured out ahead of time. (The flow chart developed by Ecotope Group for their solar water heater workshops is one example. See p. 80)

Plan to completely finish your project during the workshop. If you don't quite make it for some reason, have someone lined up to complete the job. With this preliminary work behind you, you should be able to enjoy the workshop activities without too much worry. However, it helps to assign people to be runners for extra nails, lumber, or tools

sample schedule



This flow chart is used by Ecotope Group in its solar water heater workshops, and appears in "The Water Heater Workshop Manual." See p. 102 for annotation.

in case you run out or find you have a special need.

during the workshop

Set up your operation so that more than one thing is going on at a time. This gives people a chance to break up into small groups and try out a variety of skills. Be sure your leaders are sensitive to the needs and fears of beginning laborers. Don't let the experienced carpenters do all the work while others only watch. Make sure participants understand that they can ask questions at any time to get a better idea of what is going on. Take an occasional break to examine what has been accomplished and to explain the next steps.

after the workshop

The workshop isn't over when the last nail is in place. Assign someone to followup with the home/building owners to make sure everything is working well and to give advice on plant care, pest control, harvesting, and use of nighttime insulation for greenhouses. Even if you covered these subjects in your introductory sessions, the added attention will be much appreciated and will ultimately add to your organization's image in the community.

For all projects, be sure to check back within 2 to 3 weeks. It's helpful to make an occasional check on greenhouses through at least the first year of operation.

for more information

See references for hands-on workshops in **an events sampler.**

tips for fairs

Fairs are great ways to get people involved by providing fun ways of learning about unfamiliar things. The creation of an atmosphere of excitement in a casual setting and the mixture of fun and education combine to make these events big attractions for all ages.

Although fairs are informal gatherings, you can't be casual about putting one together. A fair, particularly one that goes on for several days, may be the largest organizing effort your group ever undertakes. This is one situation where you can never start planning early enough.

Fairs are a perfect chance to take advantage of all that networking you've been doing with other groups in your community. Where did the garden club get the free booths they used last year? Who knows someone with a wind machine? Would the local mountain club be willing to organize a woodcutting party to provide fuel for wood stoves and woodchopping contests? How many groups would welcome the opportunity to join with you and tell attendees about their projects, too?

Outdoor locations are generally best for this kind of event (gyms and exhibit halls aren't too convincing where the power of the sun is concerned), but they demand special considerations for the weather. Where will families find shelter in the face of a sudden rainstorm? Who will cover up the literature tables and protect the exhibits if a summer breeze turns into a dust storm?

Who can provide enough cool drinks and solar-cooked food for crowds of hundreds or thousands? Does the site have enough trash cans to handle all the litter? If you're going to charge admission, how do you control access points? Can you count on the local police force to provide help with traffic control?

The local fairgrounds, a city park, a schoolyard, open space in an industrial park, or a shopping mall are all potential sites for your event. If you really want to attract a large number of people from your community, it's best to try to find a place on the way to other frequently visited locations: near shopping, recreation, or school areas.

before the event

- Contact all the organizations you can think of and invite them to participate. If they are experienced, ask for advice.
- Contact the police department for traffic control and security.
- Invite business and educational groups to put up exhibits.
- Estimate your electrical needs and be sure enough juice will be available.
- Set up a litter patrol.
- Contact the local press early. They can run feature articles as well as cover the event.
- Ask local businesses to provide free/inexpensive refreshments, platforms, display cases.
- Set up a first aid and lost child station.

- Set up an information booth near the entrance to direct people to specific activities.

during the event

- Be prepared to switch things around if it looks like people aren't taking advantage of all the activities because of flow obstructions you hadn't considered before.
- Be assured that you will run out of things, and have someone available to make last minute runs to the store or headquarters.

after the event

- Be prepared to spend quite a bit of time cleaning up and returning borrowed items.
- Check with your exhibitors to see if they feel the event was worth their time.

for more information

So You Want to Have a Fair? p. 154

Because seeing is believing, tours are a popular way for people to come face-to-face with the reality of solar energy. A tour of solar homes or commercial buildings can be an event in itself or a good prelude to a larger workshop or conference.

The tour schedule is crucial. Be aware of traffic flows in your community and plan travel time around peak rush-hour periods. A dry run is an absolute must for a successful tour.

planning for tours

What kinds of places will you include on the tour: homes, commercial or public buildings, research facilities?

If you plan to visit private homes, give owners plenty of notice and make sure someone will be there to direct the tour and answer questions.

Place a guide in each bus or car to brief people and answer questions between stops.

On long tours, don't forget bathroom and meal stops.

If you plan to rent buses, remember that most companies require full payment in advance and offer a 48-hour cancellation clause.

Do your best to sell all seats on the tour through preregistration.

Prepare fact sheets on each stop and hand out to participants.

Make sure people know where they will be picked up and left off and how long they are likely to be on the tour.

Be sure to have a rain date planned.

If you have planned an event with hands-on or classroom instruction, preregistration is a must. Space and materials limitations, as well as common sense, dictate that the size of your group be predictable and manageable.

If you expect to handle preregistration by mail, your flyer or brochure must contain all program details including a map or directions to the site. Be sure to include a return preregistration coupon with clear instructions on who the check is to be made out to, where it should be sent, and the deadline for preregistration. A good incentive for early returns is a discount offered on a sliding timetable. Set the deadline far enough ahead of the event to allow plenty of time for you to receive the registration and mail a confirmation.

Determine what your refund policy will be (for example, only if you are notified at least 48 hours before the event) and be sure to state it on the brochure.

Even if you are offering a celebrity or other special draw, you can't afford to sit back and wait for people to respond. People forget and put off the chore until, thinking it's too late, they do nothing at all. If your potential audience is small and available to you, callbacks or personal reminders can work.

- Set up a phone system for information. Consider an answering service or machine if volunteers/staff are not available.

- Keep accurate registration records on cards. Record the registrant's name, address, phone number, date received, and amount of payment.

- Arrange for adequate registration staff. Plan on at least one table for pre-registration and one for walk-ins. You can usually expect about equal numbers of walk-ins and preregistrants.

- Be prepared for an unusually large turnout. Have additional help on hand.

A unique registration idea for multiple-sessions events is the "personal agenda." When staff receive preregistrations, they indicate on a special form the specific workshops or sessions requested by the registrant. At registration, the person picks up the form with other materials. This way, no one has any questions about which session was requested and assigned, and registration staffers aren't bothered with a lot of questions.

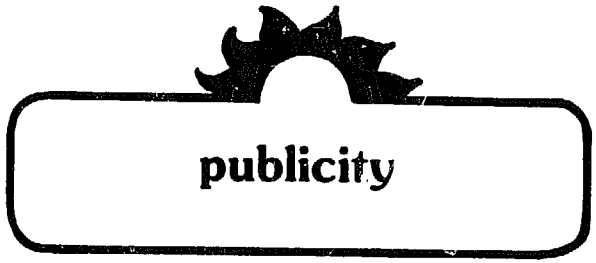
preregistration check list

- ☐ Keep an alphabetical list of registrants. Make sufficient copies so that people staffing registration tables during the conference each have one.
- ☐ Prepare name tags for preregistrants.
- ☐ Prepare receipts for preregistrants.

don't forget . . .

- Signs to indicate registration table
- Directions to meeting rooms/restrooms/telephone
- Registration forms for walk-ins
- Meal tickets
- Cash box with about $100 change
- Blank name tags
- Felt-tip pens
- Signs dividing alphabet if registration is to be handled that way
- Pens/pencils
- Tape
- Stapler/scissors/rubber bands
- File folders
- Writing tablets
- Message board
- Receipt book
- Name tags for organizers/speakers
- Agendas
- Typewriter and supplies
- Registration packages
- Information table
- Press table
- Someone assigned to be the decisionmaker on lost registrations, free entries, and other questions you never figured would come up
- An answering service to refer calls to telephone number(s) where registration people can be reached

p.s. Be sure to keep a mailing list of all attendees to use for your next event.



publicity

Don't rely on the adage that "good news travels fast" when considering a publicity program. Without effective publicity—and that includes everything from television to radio to newspapers to posters to word of mouth and more—you can practically be assured of a disappointing turnout for a program that took months to plan. There's only one way to avoid this pitfall: early planning, lots of it. Appoint or elect a publicity coordinator at one of the first planning meetings, and make sure he/she has enough volunteers or staff to carry out the publicity plan.

It helps if the publicity coordinator has established contacts with local media, whether through previous publicity efforts, past employment, or via friends or family. A "friend of a friend in the programming department" can make a difference.

Develop a publicity plan early, tailoring it to your budget and available labor force. Be sure to take the time to investigate cost details before discounting any particular avenue as "too expensive." Newspaper and radio/TV coverage initiated through a press release/public service announcement program will not only reach many more people but may cost less than printing and distributing large numbers of posters.

sample poster or flyer

No Admission Fee

Public Invited

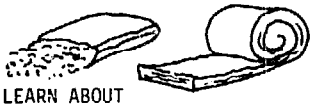
Bring the Family

ENERGY FAIR

SATURDAY, NOVEMBER 19, 1:00 to 6:00 P.M.
COMMUNITY ELEMENTARY SCHOOL, 1023 LINCOLN

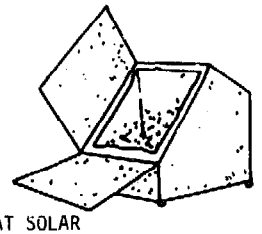
*FILM FESTIVAL

*LEARN HOW TO SAVE MONEY IN WORKSHOPS

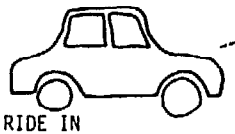


LEARN ABOUT INSULATION

1:30 URBAN AGRICULTURE - Sources of food from greenhouses, gardens, and solar food dryers.
2:00 SOLAR OPTIONS - Slide presentation on range of solar technology.
2:30 TRANSPORTATION - Discussion of Monaco traffic loads and proposed Quebec freeway.
3:00 SOLAR FOOD DRYER - Demonstration on how to build an inexpensive solar food dryer.
3:30 ELECTRIC VEHICLES - Slide show on state of the art of electric vehicles.
4:00 ENERGY AUDITS - Energy audits for your home or business.
4:30 INSULATION - Up-to-date information on weatherizing your home or business.
5:00 WATER CONSERVATION - Simple methods of conserving water.



EAT SOLAR BAKED COOKIES



RIDE IN ELECTRIC VEHICLES

*DISPLAYS AND EXHIBITS! *EXCITING ACTIVITIES!

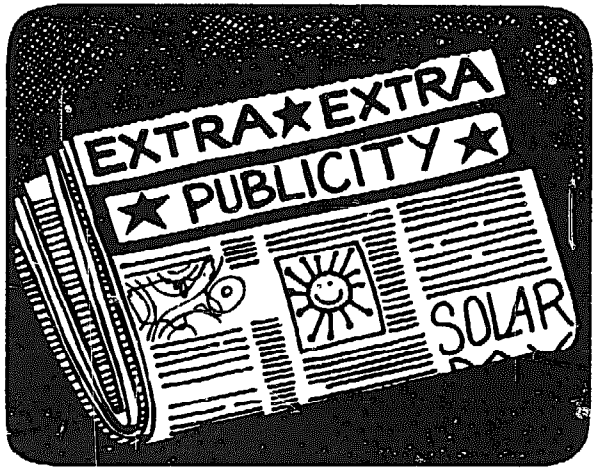
*SOLAR GREENHOUSE! *ELECTRIC CARS! *DOOR PRIZES!

*FREE REFRESHMENTS! *CONTESTS! *GRAND PRIZE!

FOR MORE INFORMATION, PLEASE CONTACT:

Courtesy of Montclair Future Power

- Who should attend
- Simple artwork
- When and where
- A reason for coming
- Program details
- Typewriter production saves money
- Something unique
- How to get more information



Timing is the single most important aspect of your publicity program. No matter how little or how much you plan to do, develop a calendar, working back from the date of the event. Allow for printing, for stuffing envelopes, for a somewhat unpredictable postal service, and remember that your press releases will be competing for attention with a deskful of others. Pad your schedule whenever possible to allow for the unexpected.

In your zeal for early planning, don't go overboard and allow too much time. A certain degree of tension and anticipation of fast-approaching deadlines can mean a more efficient process. No matter how informal or expansive your publicity efforts may be, always strive for some type of graphic continuity. If your group doesn't already have a logo or standard letterhead, develop one for the event. It need not be art gallery material but should be easily recognized and depict the nature of your group and the event. Don't turn people off with a logo that identifies you as "too technical" or "too funky." Keep in mind the climate of your community and the group you most want to reach.

If you don't have any artists in your group, seek help from a local school or university art or graphics department. Many creative people will enter a contest to develop a logo and may be more interested in displaying their talent than in a big prize.

Hanging posters and distributing leaflets are especially effective, tried and true methods of publicity. They represent one element of a comprehensive publicity effort. Some preliminary research will tell you which particular neighborhoods, shopping areas, community or university centers, or bulletin boards will attract the people you want most to reach.

If you're holding a hands-on workshop, the kind of people you're seeking might be found shopping at hardware or home improvement stores. A fabric shop might be a good place to reach attendees for a "Dress Up, Dial Down" fashion show. Examine your audience members and determine where they shop, where they eat, and where they spend their free time.

Be sure your posters are eye catching and contain as much necessary information as will fit without being crowded. Remember that people don't sit and read posters like they do newspapers. Catch their attention, whet their appetites, and they will take the responsibility to make a phone call or inquiry for further details. Be sure to include a follow-up contact name and number or address!

As soon as you have a preliminary agenda, include that on flyers and posters, if possible. This agenda, as well as the one distributed at the event itself, needs to include all necessary information. How long are sessions and breaks? Where is each segment of the program being held, and how does one get there? Is smoking allowed? If a workshop or classroom situation, do attendees need to bring anything or otherwise prepare themselves?

Participants should have no questions left after reading the printed agenda and should be able to get to meeting rooms or workshop areas with no trouble and on time.

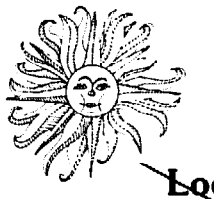
Once you begin to consider publicity outlets outside the traditional press, the possibilities are endless.

Church bulletins
Newsletters
Bulletin boards
Main Street banners
Verbal networking
Announcements at local meetings
Promotions with local shops

press releases

Press releases remain one of the most effective and affordable ways of getting your information into the media. It's not difficult to determine which publications will be interested in your event if you spend a few hours in the library to get an idea of their content and style.

sample press release



Contact: Bill Wilson
123-4567 (office)
234-5678 (home)

FOR IMMEDIATE RELEASE: 21 January 1979

Local Energy Group Plans Hands-on Workshop

How to save energy—and save money—will be the topic of a practical, "hands-on" workshop which is being cosponsored by the Local Solar Energy Association and the State Energy Research Institute.

This unique course will explore cost-effective energy conservation techniques and passive solar energy utilization for the home.

The workshop is scheduled for Thursday and Friday evenings, February 3rd and 4th, as well as all day Saturday the 5th and the afternoon of Sunday the 6th. Sessions will be held at the University Conference Center and in homes provided through county winterization programs.

Demonstrations, slide shows, a tour, and actual experience in implementing energy conservation measures will be highlights.

The following are a few of the areas to be covered:

- how to locate heat loss in a building and calculate the amount of that loss;
- the most cost-effective energy conservation methods;
- various types of insulation, materials, and tools (samples will be on hand for demonstration and use);
- experience in how to perform energy saving measures such as weatherstripping, caulking, installation of storm windows, calibration of water heaters and furnaces, and more; and
- using the sun to your best advantage (a tour of buildings designed for passive solar heating will be part of instruction.)

Supporters and contributors include Crafts Unlimited, Capitol Insulation, Solar Architects, Downtown Redevelopment Group, Energy Policy Council, Office of the Governor, Federal Energy Administration, City Lumber Co., Energy Research, Bits & Pieces Lumber Co., Public Utility Company, Bill's Lumber Co., and County Winterization Programs.

The workshop is open to the public. The registration fee is $12, or $10 to members of the Local Solar Energy Association (LSEA). Those wishing to register or obtain further information should contact LSEA, University Conference Center, 1000 22nd St., 80000 (306) 231-1232 or 449-2200 ext. 5230.

The Local Solar Energy Association (LSEA) is a non-profit volunteer organization with programs in alternative energy education.

More details are provided in the enclosed brochure.

##

Contact name and both home and office phones (if available)

Date of issue

Release date (immediate or specific date and time)

Headline — succinct and informative

Logo or typed headings

Use either "30" or "##" to mark the end of the release. Use "more" when additional pages follow.

Final paragraph on the organization

Few newspapers today report only "hard" news. Most, especially those in smaller communities, rely heavily on locally generated features and consider it part of their job to inform citizens of events like yours.

local press list

Major daily papers
Weekly papers, including church, community, and alternative papers
Wire services—Associated Press (AP), United Press International (UPI), and regional wire services
Professional association and community group newsletters
Regional newspapers, magazines
Local "shoppers"
Specialty publications
Suggestions for other community groups

Preliminary research will tell you which particular individuals or newspaper departments should receive your releases. Depending on the size and organization of the publication, anyone from a city editor to an energy reporter to a society or "lifestyle" reporter might be the one who handles your type of news. Find out ahead of time and save yourself the frustration of having your press release overlooked or thrown away by the obituary writer or county courthouse reporter.

If possible, meet personally with the appropriate contact and establish a rapport. At that time, find out the newspaper's deadlines and any other requirements or preferences that will help make your job easier.

Many books and instructions have been written on the format and content of effective press releases. Basically, press releases fall into three categories: a short invitation to cover an upcoming event; a longer statement containing the information you want publicized or attached to a publication you have issued; a "backgrounder" to educate the media on your activities and issues.

press release don'ts

—Don't try to write and reproduce your press release at the last minute.
—Don't issue a press release that doesn't say much: *do* cram it full of information and facts on timely issues.
—Don't send out press releases with typographical errors, cross-outs, misspellings (especially names), or barely legible type.
—Don't forget your group's name and address, and name and phone numbers of a contact.
—Don't omit a final paragraph describing the aims and activities of your project or organization.
—Don't send press releases to names on an outdated press list.
—Don't neglect to check all statements and figures for accuracy.

feature stories

When you plan your publicity strategy, features in magazines and newspapers cannot be overlooked for projecting a favorable image of your group and its event and for increasing public awareness of the issues.

To place a feature story in a publication, work with a specific reporter or write the article yourself and submit it. A good approach is to pinpoint one reporter who has written on energy or environmental issues or who regularly writes articles related to the subject matter of your story.

Write a letter to the reporter describing the feature story and providing facts and relevant information. The letter can be long, but it should be interesting and to the point. Follow up with a phone call in a few days and again point out the highlights and various angles of your story.

If you write your own story, tailor your writing style and length to those of a particular publication. With your finished product in hand, approach a reporter or staff writer in the same fashion as above.

Feature stories usually provide a human interest dimension, often explore new trends in the community, and can generate a great deal of public interest and support for your activities.

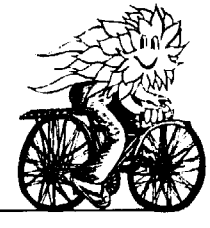


photo stories

When a picture is worth a thousand words, use it.

- Set up events that lend themselves to a picture story. Notify the press ahead of time.
- Don't bother sending unsolicited photos to most publications. They'll be thrown away most of the time.
- If you have a picture story, send your own photographer and let editors look at the contact sheets.
- Supply prints (always glossy, 5" by 7" or preferably, 8" by 10") on a selective basis to local editors who have requested them.
- Use action shots, not group portraits.

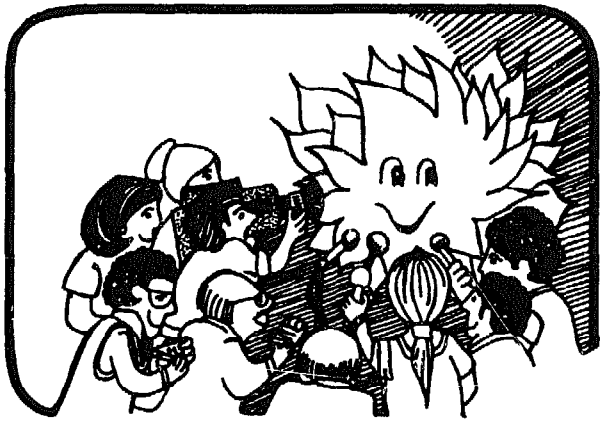
press conferences

A press conference can be useful for breaking news like:

—You have an important announcement to make—e.g., kicking off a political campaign or presenting information on an organizing effort;

—Your event features a prominent speaker;

—A coalition forms to support your planning effort.



Press conferences provide a channel of direct communication between spokespersons and media representatives and can help to arouse press interest in energy issues. A dull press conference with no real news value can turn off the press and all but destroy your chances of future coverage.

Call the conference only when the news you have to tell cannot be dealt with in a routine news release and when you feel the story merits special attention. Remember that the purpose of a press conference is to allow the media to cover an unusual or complex story in depth.

Timing of press conferences and news releases is crucial. News leaked through early-release press releases or other means will all but negate the effectiveness of a press conference.

for more information

"Getting Yourself Into Print" p. 151
A Handbook on Free Access to the Media for Public Service Advertising p. 152
"Making Yourself Heard" p. 152
The Sun Day Press Handbook or I Like Your Song and Dance, But Is It News? p. 104

public service announcements

Public Service Announcements (PSAs or spot announcements) are advertisement-like messages on behalf of non-profit groups which radio and TV stations air free of charge as a community service. They're not just doing this out of the goodness of their hearts; the Federal Communications Commission requires that a certain amount of air time be used for such functions.

Although you can use a PSA effectively in reaching a mass audience, you can never determine when a PSA may be aired or with what type of program. Most radio and television stations are flooded with requests for PSAs—it's up to you to convince the station that your message is especially important to local audiences.

General Rules for PSAs

- The sponsoring group must be a non-profit organization, a local or national organization offering a service to the community, or a government agency.
- All announcements must have proper identification of the sponsoring group.
- No commercial reference whatsoever may be made.
- Finished PSAs must be provided to the station at least 2 weeks in advance.

tips for writing scripts for PSAs

- Get the attention of the audience. Be punchy and upbeat.
- Develop interest—show the listener what he/she has to gain from your event.
- Demonstrate, with facts and information.
- Ask for action. Tell the listener where to go, what to do, who to call.

tips for producing PSA tapes

—PSAs must be technically well-produced and effective.
—Use about 20 words for a 10-second spot; 75 for a 30-second spot; about 150 for a 60-second spot.
—The tape must fit the style of the station and be geared to its listening audience. Don't use a hard rock music background for a classical music station.

Television PSAs are not much different from their radio counterparts. Plan to give the station one or two slides with your copy; some will make slides from photographs in good condition. Some stations will actually videotape you or someone personally presenting the message; others may offer to make copies of your PSA tape that you can give to other stations.

Don't forget local cable TV studios.

Some local groups may be awed by television productions. Don't be. Most station personnel are very willing to help and will explain anything you want to know. Remember—not only are many interested in community public service; it's the law.

Don't always assume that PSAs are the way to go. In some instances, it may be worth your while to buy radio advertising which can be quite affordable if you pick off-peak air time and stick to very short messages. You might wish to blitz a station the day before the event.

If you want live coverage, make sure that something visually interesting is going on at your event, and remember that you can always be bumped by a spot news event such as a fire, accident, or important political development.

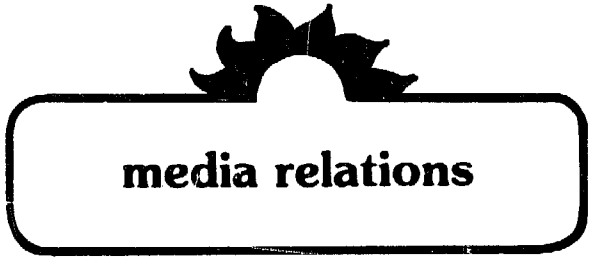
during the event

Most of the publicity work should be completed before the actual day of the event. If it hasn't been, be prepared for a small turnout or a large disaster! The job is not completely over, though.

- Greet reporters: see that they have press kits, texts of speeches, and necessary background information.
- Help reporters get facts and interviews; provide typewriter and work space. Arrange for a telephone or know the location of the nearest pay phone.
- Advise arrangements chairperson about reporters' meals. Opinions vary on whether reporters pay their own way.
- If newsworthy developments occur during the event, write and dispatch a news release.
- If you plan to have live radio or TV coverage, set up a room to accommodate cameras, tape recorders, lights, microphones.
- Be sure that someone is available at all times to answer questions.

after the event

- Prepare wrap-up release on entire event, if feasible. This is especially appropriate when the event was a fundraiser or met a specific stated goal.
- Thank in person or by letter any station, paper, or individual that gave you especially comprehensive coverage.
- Prepare a scrapbook of your publicity efforts and results for posterity.
- Be sure that you leave press files in good, updated order for the next person.



media relations

The ways in which you approach and work with representatives of the media play a large part in determining whether you get a "good press." Your attitude must reflect your confidence that your event is newsworthy, that you are honest and fair, and that you don't expect any special favors or attention.

Much of the important networking will fall into place because of personal rapport between your group's representatives and the media people. Once this rapport is developed, do whatever you can to maintain and strengthen it even when you're between events.

Remember that reporters and editors are only human, and the only information they will have about your group is what you tell them. Invite a reporter to a meeting or to your headquarters to meet your key people and learn about your goals, aims, and activities.

No reporter is obligated to give you extraordinary treatment. If one does, a thank-you letter or call is in order. No special thanks, however, are necessary when papers or radio stations run your press releases or list your event in a weekly or monthly calendar. That's their job.

evaluation

When the event is over, it's advisable—if not necessary because of financial obligations—to have some measure of its success or failure. The tangible results are easy to see. You made a profit, completed a greenhouse or other hands-on project without incident, or picked up new members for your organization. A new group or spin-off was established, a follow-up program was created, a policy change was made.

The subjective results may be a little harder to gauge, and the simplest and most obvious means of determining people's feelings about an experience is to ask them. A simple evaluation sheet at the event will give you immediate feedback on its content, format, and tone. Keep questions simple and ask people to fill out the questionnaire before leaving.

sample evaluation questions

What is your profession or background?

How did you find out about this event?

What motivated you to attend?

What was your overall reaction to the event? ___Excellent ___Good ___Fair ___Poor

Did you find the information too technical? Not detailed enough?

How would you rate the speakers/instructors? ___Excellent ___Good ___Fair ___Poor

Would you recommend additions or changes in subject content? If so, what?

How would you rate the meeting facilities?

Would you be interested in helping to organize a similar event?

Additional comments:_____

_____

Longer term evaluations can be useful, especially in the case of hands-on workshops or ongoing programs. Retain the names and address of all participants and greenhouse/solar system owners, and send them a follow-up questionnaire 6 months later.

sample follow-up questions for greenhouse/solar system owners

Is the greenhouse/solar system being used? How?

Have you seen a decrease in energy use? Have you computed it specifically?

Have you had any problems with maintenance? Pest control?

Have any of your neighbors built a greenhouse/solar system as a result of the workshop?

sample follow-up questions for workshop participants

Have you built a similar project for your own home? For friends?

Have you organized a similar workshop in your area?

Have you made any changes in your energy use habits as a result of your participation in the project?

Have you computed any decreases in energy use?

If possible, send the questionnaires with stamped return envelopes or return post cards. You might even offer an incentive of a free membership in your organization or a

free inexpensive publication for those who respond.

Maintain your mailing lists and update them periodically. You will want to use them for additional mailings or correspondence, or may lend or sell them to other groups wishing to reach this specialized audience.

self-evaluation

After the event, when things are back to normal (whatever that is!) and people have had a chance to breathe, bring the organizing committee together one last time for a self-evaluation. Don't only chastise each other for the problems or mix-ups; highlight the things that were done particularly well. What things were learned as a group and as individuals through the process? Were people able to identify skills or strengths they never knew they had? Did someone emerge as a natural-born leader or publicity-maker?

With all your newly found organizing knowledge, perhaps you'd like to write a book on your experience . . .

saving the event for posterity

No matter how simple or complex your event, don't overlook getting something down on paper or film to prove that it really took place! In addition to providing a bit of history on your organization, slide shows or

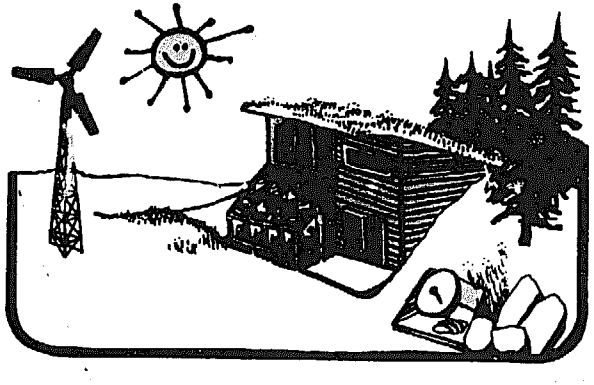
publications can also be sold as profitmakers. Slides are especially appropriate for hands-on construction workshops; a movie is the ultimate documentation. In most cases, photographs and some kind of minutes are adequate.

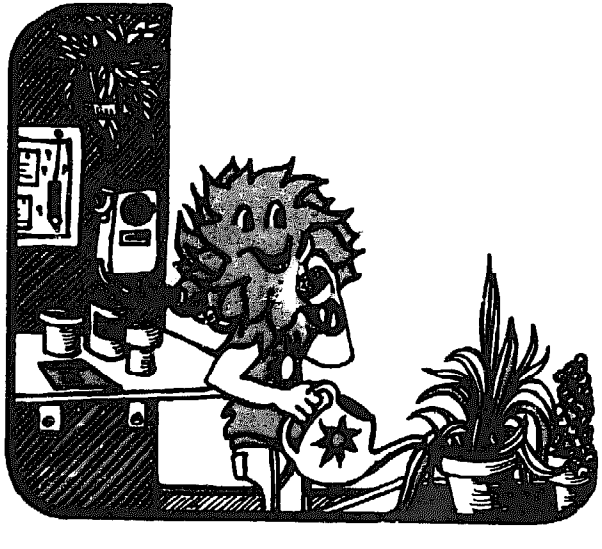
If your community has a local cable TV station or a college with a media department, you might be able to find students willing to videotape the event for the experience. More and more libraries in larger areas also carry video equipment.

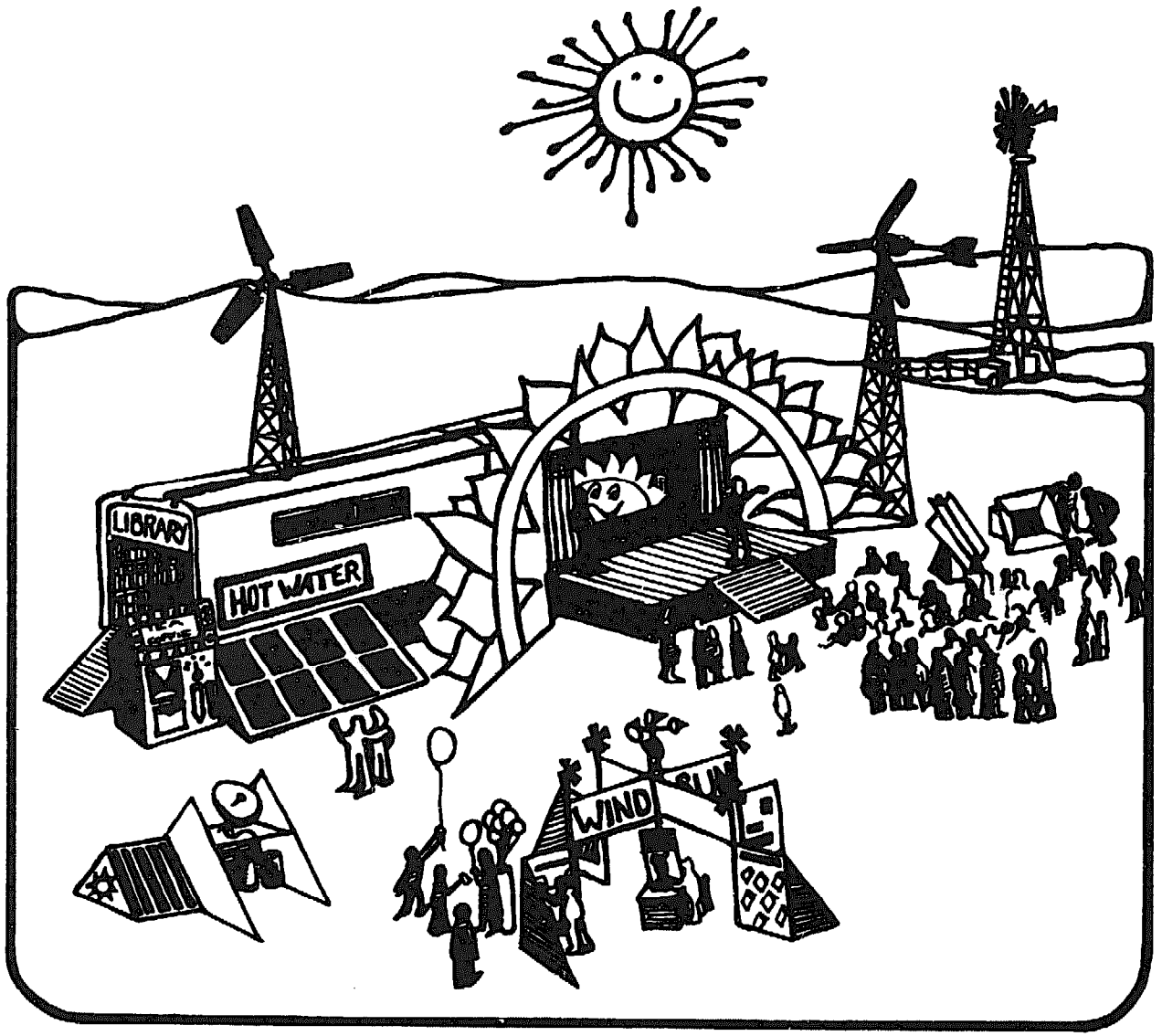
before you sit down ...

Clean up the space.
Celebrate the success.
Return the equipment.
Thank the participants.
Tell the press it's over.
Pay the bills.
Acknowledge the supporters.
Start on the next event.

a guide to selected resources







Although saved until last, this resource guide may provide the crucial link you need to carry off a solar event that is well organized, profitable, and offers useful and technically accurate information to people who will want to put it to use.

The preceding sections of this manual presented a pool of ideas for seminars, workshops, or fairs and gave you a basic grasp of the effort it takes to make them happen. Now it's time to fill in the gaps in your knowledge of solar energy, energy conservation, and organizing techniques so you can develop a well-rounded, well-structured plan for action.

In your search for information, you will find billions of tons of paper on the subjects of energy conservation and renewable resources. Some of the information is excellent; some isn't. Some is good for general audiences; some is geared to researchers and professionals. If you are a newcomer to the jargon and to the players, you could get bogged down in efforts to separate the useful from the useless.

We have saved you time, money, and energy by doing most of the preliminary legwork. This guide will direct you to the books, films, or people best suited to answer your questions.

a word about using this section

A glance ahead at this section may overwhelm you—the lists of publications, films, and organizations appear endless. What is more amazing is that this collection in no way represents every book, report, brochure, pamphlet, or film that covers the subject matter. The surge in interest in alternative energy forms over the past 5 years has prompted a barrage of printed material from a variety of sources.

Each printed or audiovisual product included in this section was personally reviewed by a member of the editorial team, and included on the basis of its applicability to general audiences, readability or viewability, and ease of acquisition. Organizations were selected on the basis of their involvement or interest in solar energy, energy conservation, and related consumer issues.

Compilations were double checked by a review team representing grassroots groups and Regional Solar Energy Centers from around the country. This team of solar energy experts considered every entry individually. Some well-known products or authors may have been excluded because they didn't quite fit the purpose of this book; many lesser known works were included because of unique subject treatment or superior presentation.

A particular grouping of books was highlighted by the reviewers as a **survivor's kit.** These publications, which cover energy conservation, various solar applications, and organizing, comprise a beginning bookshelf for newcomers. If you need a basic introduction to the subject matter and have a limited budget, consider these books first.

Most of the materials are geared to a general audience, but some specialty publications have been included and noted with a symbol. These include materials that are free, region- or state-specific, applicable to children, contain blueprints and plans, or are technical in content.

Materials are listed according to major subject content. Additional topics covered are indicated at the end of each entry. These resource materials can be used in several ways. An organizer may need a personal education or a refresher course, and may then refer audience members to the same materials. Many of the pieces can be sold as a way to raise money for your organization. If affordable, they may be used as handout materials at seminars, fairs, or workshops.

A great deal of care and energy has gone into making these listings as accurate as possible. Every effort was made to ensure that addresses, publication prices and sources, and credits were correct—most organizations were personally contacted by mail or phone to confirm their status as of June 1, 1979. The informal nature of many grassroots organizations and their publications made this task especially monumental.

As the book has stressed, local resources and talents should never be overlooked. In fact, they should always be a first consideration. **Before mail-ordering anything, check your local sources.** Many of the listed materials are available at your library or bookstore—if not, ask to have them ordered. Remember that many libraries now handle audiovisual as well as printed materials. Solar energy organizations sell books, slide shows, and reprints as fund-raisers—they are good groups to support.

If what you want is not available locally, ordering information in this section is based on details from publishers or authors. Often, a national-scope publishing house is cited.

State and federal government offices are also good sources for free pamphlets or other information; you may be able to use their libraries as well. Organizations such as the National Solar Heating and Cooling Information Center (NSHCIC), the Solar Energy Research Institute (SERI), the Regional Solar Energy Centers (RSEC), and the Energy Extension Services (EES) exist through your tax money. You should use them. Details are given in the listing of offices and organizations at the end of this section.

symbols used in this section

free


region- or state-specific


for young people


blueprints/plans


technical


survivor's kit


state energy office

presenting

Publications, Films & Slides

survivor's kit

As in any field, there are some books on solar energy, energy conservation, and organizing that are classics and form the basis of any good library. In May 1979, a review team of solar experts selected the following publications as the **survivor's kit** for individuals or organizations needing a basic introduction to the topics covered in this book. Money or time invested in acquiring these publications is well spent.

547 Easy Ways to Save Energy in Your Home. Albright, Roger. Charlotte, Vt: Garden Way Publishing Co.; 1978. (124 p.) $4.95.

This is an easygoing, common sense approach to alleviating the high cost of energy in the home. It provides inexpensive hints and suggestions rather than step-by-step, do-it-yourself projects. For example, a few of the suggestions are using footstools, heavy socks, and down blankets during the winter; washing laundry in cold water; preserving and canning foods for year-round eating; and using candles for heat. The last chapter has suggestions for planning an ideal house for year-round fuel economy, including the possibility of installing solar heating systems. The chapter on solar describes basic ways to collect and use sun heat, including skylights, effective use of colors, and using windows as solar collectors.

Order from: Garde[illegible], VT 0[illegible] Way Publishing Co.,
[illegible]45
[illegible]uses; Passive

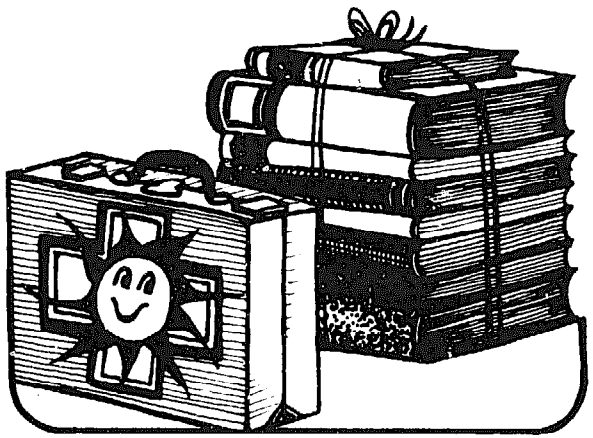
The Fuel Savers: A Kit of Solar Ideas for Existing Homes. Scully, Dan; Prowler, Don; Anderson, Bruce. Harrisville, N.H.: Total Environmental Action, Inc.; 1978. (60 p.) $2.75.

This booklet was originally prepared as part of a Community Action Program project to weatherize low-income houses. The purpose is to "demystify" solar energy and to describe relatively simple solar systems that can be constructed at moderate costs and as do-it-yourself projects of varying complexities. Among the 18 ideas are insulating curtains; insulating shutters; collectors as integral, attached and free-standing structures; new windows; window boxes; greenhouses; garages; glassed-in porches; and solar hot water heaters. Each is schematically presented; an economic evaluation which gives materials costs, fuel reductions, and cost-effectiveness ratings is included. The ideas are suggestions, not blueprints; and the reader who is spurred on to undertake a do-it-yourself project is advised to do further reading from the bibliography.

Order from: Total Environmental Action, Inc., Church Hill, Harrisville, NH 03450
Also: Solar (General); Greenhouses

In the Bank or Up the Chimney? A Dollars and Cents Guide to Energy Saving Home Improvements. U.S. Department of Housing and Urban Development, Division of Energy, Building Technology and Standards. 2nd ed. Washington, D.C.: U.S. Government Printing Office; 1977. (73 p.)
$3.00.

This manual describes energy [illegible]ving techniques for heating and cooling all types



of homes. Part One provides an armchair view of your best energy-saving steps, along with a rough estimate of cost. A workbook format shows how to determine quick home improvements (caulking and weather-stripping for windows and doors, installation of storm windows and doors, insulation throughout the house). Easy arithmetic formulas allow you to calculate specific costs and savings for each energy-saving improvement. The book then details each of the projects, including materials and tools lists and illustrated step-by-step directions. Hints on selecting a contractor and basics on obtaining financing are included. This guide is well organized, and numerous drawings make each step or formula easy to follow. Quantity discounts and information on using this manual for energy education programs are available.

Order from: Office of Policy Development and Research, Division of Product Dissemination and Transfer, U.S. Department of Housing and Urban Development, 451 7th St. SW, Room 8126, Washington, DC [illegible]
[illegible] 20410 (HUD-PRD-89(4))

Other Homes and Garbage. Leckie, Jim et al. San Francisco, Calif.: Sierra Club Books; 1975. (302 p.) $9.95.

This book presents a practical approach to alternative energy sources for decentralized application to residences. Subjects covered include alternative architecture, small-scale generation of electricity, solar heating, waste-handling, water supply systems, agriculture, and aquaculture. There is design and construction information for solar stills, windmills, methane digesters, water wheels, etc. The text is readable and semitechnical. Numerous graphics and charts augment the written material; a bibliography appears at the end of each chapter.

Order from: Charles Scribner's Sons, Book Warehouse, Vreeland Ave., Totowa, NJ 07512
Also: Energy Conservation; Passive Solar

Rainbook: Resources for Appropriate Technology. *RAIN.* New York: Schocken Books; 1977. (251 p.) $7.95.

Appropriate technology is "not merely a question of machines and tools, but the nature of all the conceptual, organizational, political, physical and spiritual tools and techniques which we bring into play by our actions." Thus the scope of this book is very broad. It is really a catalog and directory that gives detailed descriptions [illegible] books, magazines, maps, groups [illegible] organizations that are conc[illegible] of renewable energy, co[illegible] and agriculture, ap[illegible] erned with information [illegible] mmunity building, [illegible] health. It contains [illegible]ion from the last 2 1/2 years [illegible] *RAIN* plus new material on topics such as compost toilets, solar greenhouses, and solar and wind energy. Its rather haphazard arrangement and informal style make it a fun book for browsing. However, its real value lies in the often elusive information that is brought together. A complete, fully integrated index of titles and names allows the reader to locate specific information being sought. Updated yearly.

Order from: *RAIN,* 2270 NW Irving, Portland, OR 97210
Also: Greenhouses; Wind Energy

The Solar Home Book: Heating, Cooling and Designing with the Sun. Anderson, Bruce. Harrisville, N.H.: Cheshire Books; 1976. (297 p.) $7.50.

This comprehensive, informative book introduces the layperson to residential uses of solar energy. Among the topics discussed are the fundamentals of solar energy, principles of ecodesign architecture, calculations for energy flows around the house, heating and cooling systems and components, direct and indirect systems, integrated solar systems, and solar hot water systems. The author devotes one chapter to "soft technology," the pass[illegible] approach to harnessing solar [illegible] book tackles the probl[illegible]sive by citing energ[illegible]ergy. The (insulatio[illegible]m of existing homes for [illegible] conserving techniques [illegible], etc.) and by offering suggestions [illegible] solar retrofit projects (window-box and wall collectors, and attached greenhouses). The discussion of social and cultural implications (financial constraints, a conservative construction industry, legal barriers, government incentives) cannot readily be found in other solar texts. The approach throughout the book is ideal: succinct, clear explanation of principles and concepts; numerous charts, diagrams, and drawings to clarify textual material; concise descriptions of several existing buildings to illustrate practical applications; and chapter-by-chapter lists of suggested reading for more in-depth coverage of specific subjects. Three extensive appendices provide climatic and design data, and lists of solar architects and manufacturers. A glossary of solar terms and an index complete this excellent book.

Order from: Cheshire Books, Church Hill, Harrisville, NH 03450
Also: Energy Conservation; Passive Solar

Sunset Homeowner's Guide to Solar Heating. Antolini, Holly Lyman. Menlo Park, Calif.: Lane Publishing Co.; 1978. (96 p.) $2.95.

This book provides a com[illegible]prehen[illegible] introduction to solar ene[illegible] layperson. It explains ho[illegible]nsive works and how it ca[illegible]or the in active and p[illegible] solar heating water he[illegible]n be used in the home e[illegible] passive systems, domestic [illegible]ating, and pool heating. It emphasizes solar heating systems as they exist in actual homes. Comfort and aesthetic qualities of the various systems are stressed. Nontechnical language, detailed drawings and beautiful color photographs all combine to present an inviting way to learn about this exciting alternative source of energy. Chapters include: 1) Harnessing the Sun; 2) Can the Sun Work for You? 3) Passive Solar Houses at Work; and 5) Active Solar Houses at Work. A concise one-page bibliography lists sources for further information. There is a glossary entitled "Untangling Solar Terms." A handy index provides quick retrieval of specific information.

Order from: Lane Publishing Co., Willow and Middlefield Roads, Menlo Park, CA 94025

The Solar Decision Book: Your Guide to Making a Sound Investment.
Montgomery, Richard H.; Budnick, Jim. New York: John Wiley and Sons; 1978. (272 p.) $12.95.

The first five chapters provide an overview of the energy crisis and outline various nonfossil and natural fuels available, selecting solar energy as the best alternative. A comprehensive treatment of solar as an investment, including advice on financial planning, performance charts, cost comparisons, and design data to aid appraisals and support value claims in loan negotiations is given. There are chapters on each of the following technical factors: collector siting, pumps, heat exchangers, heat storage for solar domestic water and space heating, auxiliary heating, and controls. Chapters on sizing, a step-by-step method for estimating costs and quoting prices, and installation contain information useful to contractors and manufacturers. There are five technical appendices, A) Calculating Structure Heat Losses, B) Evaluating an Energy Conservation Investment, C) Solar System Sizing Charts, D) Solar Window Projections and E) Conversion Factors which contain numerous charts, diagrams, and tables. A short index completes the book. Directed to potential purchasers of active solar systems in both residential and commercial sectors as well as tradespeople, much of the information is technical or semitechnical. Authors' opinions are expressed in the chapters on flat-plate collectors, controls, and the synthesis of solar water heating and complete solar systems.

Order from: John Wiley and Sons, 605 Third Ave., New York, NY 10016
Also: Domestic Hot Water

Solar Dwelling Design Concepts.
American Institute of Architects (AIA) Research Corp. Washington, D.C.: U.S. Department of Housing and Urban Development, Office of Policy Development and Research; 1976. (146 p.) $2.30.

HUD issued this book to increase the public's awareness and understanding of solar heating and cooling and its practical application to housing design. It is a lucid, well-organized and easily read introduction to the subject for consumers, builders, and designers. Beginning with an historical perspective of solar heating and cooling, a thorough description of solar energy components (collectors, heat storage, and thermal energy distribution) and their integration into heating, cooling, and domestic hot water systems is given. Advantages and disadvantages are listed for 1) warm-water flat-plate system, 2) warm-air flat-plate system, 3) warm-water concentrating system, and 4) warm-air passive system.

Climatic conditions are given emphasis as the key factor in determining the design of solar homes and systems; other determinants are personal comfort and architectural design implications. One chapter analyzes site and orientation considerations for each climatic region (cool, temperate, hot-humid, and hot-arid). One-third of the book illustrates solar dwelling design concepts for varied housing types, solar systems, and climate. There are many drawings. A concise general bibliography completes the book.

Order from: Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402 (Stock No. 023-000-0034-1)
Also: Solar (General); Passive Solar

Solar Heated Buildings of North America: 120 Outstanding Examples.
Shurcliff, William A. Harrisville, N.H.: Brick House Publishing Co.; 1978. (293 p.) $8.95.

This book describes 120 existing solar heated buildings, with emphasis on simple, reliable, and less costly systems. Solar heated buildings of merely historical interest are not included. Most are family homes

although about 20 are special types: schools and colleges, office buildings, a church, community buildings, arboreta, a greenhouse, and an aquaculture dwelling. The structures are representative of all regions of the United States and of several Canadian provinces. Each section contains a brief description of the structure and black and white photographs. Construction plans are not included. System descriptions include collection, storage, auxiliary heat source, domestic hot water, cooling in summer, and problems and modifications. A selected list of some key solar designers and architects and their addresses concludes this work.

Order from: Brick House Publishing Co., Church Hill, Harrisville, NH 03450
Also: Greenhouses; Passive

The Solar Water Heater Workshop Manual. 2nd ed. Eklund, Ken et al. Seattle, Wash.: Ecotope Group; 1979. (82 p.) $5.75.

This book, based on workshops sponsored by Ecotope Group and *RAIN*, is a step-by-step description of how to build a solar water heater and how to organize a workshop to instruct others to build one. The heater described is a thermosiphon design which costs about $600 to build.

The book also covers collector modifications, location and siting options, and considerations for mounting the collector collector (loads, supporting structures, and attaching collectors to the roof). System piping, freeze protection, heat exchangers, maintenance, and things to consider when buying a commercial system are included. Examples focus on the Northwest. A concise bibliography and materials list complete this very useful and well-written book.

Order from: Ecotope Group, 2332 E. Madison, Seattle, WA 98112
Also: Organizing

The Food and Heat Producing Solar Greenhouse: Design, Construction, Operation. Fisher, Rick; Yanda, Bill. Santa Fe, N. Mex.: John Muir Publications; 1976. (161 p.) $6.00.

This book is an easily read, non-technical "what to do" in designing, building and operating a solar greenhouse. Chapters include 1) The Greenhouse Biosphere, 2) The Dependence Cycle, 3) The Design, 4) Construction, 5) Performance and Improvements, 6) The Greenhouse Garden, and 7) State of the Art. Descriptions and details are given for 29 specific greenhouses. Black and white photographs and some sketches are included; cost of some greenhouses is given as well as sources for further information. One of the more useful illustrations is a graph which depicts how long the normal growing season was extended for various foods and flowers through the use of a solar greenhouse. Three appendices, A) Sun Movement Charts, B) Planting Charts, and C) Ongoing Research, and a chapter-by-chapter bibliography complete the book. This work is an outgrowth of the Solar Sustenance Projects, and these passive greenhouses were designed specifically for the dry, high-altitude, high-sunshine Rocky Mountain regions.

Order from: Book People, 2940 Seventh St., Berkeley, CA 94710

Natural Solar Architecture: A Passive Primer. Wright, David. New York: Van Nostrand Reinhold Co.; 1978. (245 p.) $7.95.

The primer presents the fundamental concepts of passive solar design written by one of the country's leading passive architects. Wright both explains passive design concepts and provides a philosophical statement of why environmentally compatible and energy-efficient architecture is the way we ought to build. The chapters include energy ethics, microclimate design, nature's design tools, applying the tools, and looking ahead. The book is intended for the novice, and the technical information is limited. A thorough bibliography is included. The book contains many diagrams and pictures and a handwritten text which makes quick scanning impossible. The book is worth the time it will take to read it thoroughly.

Order from: Van Nostrand Reinhold Co., 136 W. 50th St., New York, NY 10020

The Passive Solar Energy Book: A Complete Guide to Passive Solar Home, Greenhouse and Building Design. Mazria, Edward. Emmaus, Penn.: Rodale Press, Inc.; 1979. (435 p.) $10.95.

At last a compendium of passive solar energy is available. This book makes the technical information on this subject accessible to everyone, and it contains most of the information needed to design a passive solar building. Neither professional architectural nor engineering graphic symbols are used to represent materials and concepts. The illustrations accompanying the text convey technical data in a simple, clear format; photographs depict existing

applications of entire systems or specific techniques. The contents are ordered in sequence from general solar theory and applications to system design and performance calculations: I) Natural Processes—sun, radiation, heat; II) Passive Solar Systems—direct gain, indirect gain, isolated gain, advantages and disadvantages; III) Design Patterns—site and location, direct gain systems, thermal storage wall systems, attached greenhouses, roof pond systems, and greenhouses; IV) Tools—sun charts, solar radiation calculator, and shading calculator. Eight appendices contain data necessary to acurately design and calculate a passive system: 1) Performance Calculations, 2) Percentage of Solar Radiation Absorbed by Various Surfaces, 3) Average Daily Solar Radiation, 4) Average Daily Temperatures in North America, 5) Degree-Days, 6) Clear-Day Solar Heat Gain, 7) Percentage of Enhancement of Solar Heat Gain with Specular Reflectors, and 8) Conversion Tables. A glossary, a chapter-by-chapter bibliography, and an index combine to make this an invaluable reference resource.

Order from: Rodale Press, Inc., 33 E. Minor St., Emmaus, PA 18049
Also: Greenhouses

The Politics of Energy. Commoner, Barry. Westminister, Md.: Random House Publishing Co.; 1979. (100 p.) $4.95 (paperback), $10.00 (hardback).

Continued reliance on non-renewable fuels is becoming more costly over time and promises to have an increasingly devastating effect on inflation and the economy. Based on this premise, Commoner analyzes solar energy and breeder-based nuclear power—the two renewable sources of energy which can provide options for satisfying U.S. energy requirements. Arguments presented strongly support the solar option and are well documented with current examples. The National Energy Plan; the Three Mile Island nuclear accident; and the findings of the Department of Energy commercialization task force reports on photovoltaics, wind, solar space and water heating, and bioconversion are all cited and analyzed.

Order from: Random House, 400 Hahn Road, Westminister, MD 21157

Harnessing the Wind for Home Energy. McGuigan, Dermot. Charlotte, Vt.: Garden Way Publishing Co.; 1978. (132 p.) $9.95.

This book provides a complete overview of wind as an alternative residential energy source. It offers guidelines for selecting sites, measuring wind power potential, calculating costs and paybacks of wind systems, and choosing wind generators for home installations. There are descriptions of components and equipment. Much of the text is devoted to "visiting" nine different wind energy installations, including non-technical explanations of how they work, how much electricity they generate, and how much they cost. An invaluable resource section provides an annotated worldwide list of 38 manufacturers and restorers; a list of six manufacturers of windmills for mechanical applications; an annotated list of 28 agents; and an annotated bibliography of books and journals.

Order from: Garden Way Publishing Co., Charlotte, VT 05445

Wind Power for Farms, Homes and Small Industry. Park, Jack; Schwind, Dick. Mountain View, Calif.: Nielsen Engineering and Research, Inc.; 1978. (163 p.) $9.25.

According to *Wind Power Digest*, this is the most thorough and useful book on wind energy from the consumer's point of view. Topics covered include how wind turbines work, wind behavior and site selection, power and energy requirements, components of a wind energy conversion system (WECS), selecting your WECS system and figuring the cost of its power, and legal considerations. The appendices include a listing of wind power resources at 750 stations in the United States and southern Canada and a discussion on installing a WECS system.

Order from: National Technical Information Service, 5285 Port Royal Rd., Springfield, VA 22161 (Report No. RFP-2841/1270/78/4)

The Woodburner's Encyclopedia. Shelton, Jay; Shapiro, Andrew B. Waitsfield, Vt.: Vermont Crossroads Press; 1976. (155 p.) $6.95.

The text by Jay Shelton provides a comprehensive treatment of wood as an alternative energy resource. Chapters cover the following topics: 1) wood as an energy resource; 2) energy, temperature and heat; 3) fuelwood; 4) combustion; 5) chimneys; 6) energy efficiency; 7) operating characteristics and heat output; 8) installations; 9) safety; 10) accessories; 11) fireplaces; 12) creosote and chimney fires; and 13) economics. It includes results of energy efficiency studies of various kinds of stoves. Footnotes, a glossary, six technical appendices, and an index complete the text.

Two compilations by Andrew Shapiro conclude this work. The first is an extensive alphabetical list of manufacturers and importers with addresses, descriptive statements, product identification by specification chart divisions, and product illustrations. The last compilation has manufacturers' specification charts divided into the following categories: 1) cook stoves, 2) heating stoves, 3) circulating heaters, 4) furnaces, 5) free-standing fireplaces, 6) prefabricated fireplaces, 7) fireplace accessories, 8) hot water heaters, 9) heat reclaimers, 10) barrel stove kits, and 11) wood splitters.

Order from: Vermont Crossroads Press, P.O. Box 333, Waitsfield, VT 05673

The Grass Roots Fundraising Book: How To Raise Money In Your Community. Flanagan, Joan. Chicago, Ill.: Swallow Press; 1977. (219 p.) $5.25.

The book demonstrates how concerned citizens can use their talents and knowledge to put together successful and easy to plan fundraising activities. The practical advice it provides on the nuts and bolts of organizing special events makes this a unique and valuable resource tool for the local organization. This "how-to-do-it" guide includes tried and true advice on how to choose the right fundraising method for your group, how to make the most money in the least amount of time, how to organize fundraising events, how to use fundraising to strengthen your organization and recruit and train volunteers. This book combines humor and useful anecdotes with down-to-earth guidance on how to choose, plan, and carry out a profitable fundraising event.

Order from: Swallow Press, 811 Junior Terrace, Chicago, IL 60613

Free **Sun Day Press Handbook... or...I Like Your Song-and-Dance, But is it News?** Washington, D.C.: Sun Day; 1977. (15 p.)

This is a brief but very thorough look at all the dos and don'ts of creating publicity pieces for your organization or event, and getting them used properly by the media. Areas covered are publicity—the types of media you should be in touch with; writing press releases—what to include, who to send it to, how to do a photo or feature story, and how to establish and maintain good media relationships even when you receive bad publicity; holding press conferences; preparing public service announcements—preparing them for radio and TV is one thing: now, get them placed.

Order from: Center for Renewable Resources, 1001 Connecticut Ave. NW, Fifth Floor, Washington, DC 20036

energy conservation

Do-it-Yourselfer's Guide to Modern Energy-Efficient Heating and Cooling Systems. Traister, John. Blue Ridge Summit, Pa.: TAB Books; 1977. (280 p.) $5.95.

This guide book shows the do-it-yourselfer how to select, maintain, and repair a range of modern heating and cooling systems: solar radiant, forced air, and boiler fed. Clear, detailed, step-by-step instructions with abundant black and white illustrations and diagrams aid in accomplishing the purpose. Chapters include: 1) Preparing Your Home for Heating and Cooling, 2) Simplified Heating Calculations, 3) Selecting Heating Equipment, 4) Installing Electric Heating Units, 5) Simplified Cooling Calculations, 6) Installing Combination Heating and Cooling Units, 7) Central Air-Conditioning Units, 8) Installing Your Own Ductwork, 9) Installing High Velocity Systems, 10) Tips on Conserving Energy, 11) Troubleshooting Heating and Cooling Systems, 12) Installing an Attic Fan, 13) Installing Radiant Heating Cable, 14) Stretch Your Swimming Season with a Pool Heater, 15) Ole Sol, and 16) Basic Safety Controls for Hot-Water Space-Heating Boilers.

Although detailed explanations and instructions are available on every other topic, the material on solar energy is noticeably weak; a solar heating system designed by G. Lewis Craig & Associates is briefly described. There are three appendices: A) Manufacturers of Heating and Cooling Products, B) Glossary, and C) Sample of Heating and Cooling Specifications.

Order from: TAB Books, Blue Ridge Summit, PA 17214

Free **Energy Conservation: A Consumer Guide to Saving Energy...and Money.** United Automobile, Aerospace and Agriculture Implement Workers of America (UAW). Detroit, Mich.: (n.d.) (18 p.).

Written primarily for union members this is a good guide for anyone wanting to learn

the basics of home energy conservation. It covers different varieties of insulation; practices for saving energy in heating and cooling operations; hot water use in the kitchen, bathroom, and laundry; and overall household practices. There is a short section suggesting that readers consider solar as another way of saving energy and explaining the things they should consider in making a decision.

Order from: UAW, Consumer Affairs and Conservation Department, 8000 E. Jefferson Ave., Detroit, MI 48214

Free **Energy-Efficient Construction.** City/County Task Force. Grand Junction, Colo.: Grand Junction Public Energy Information Office; 1978. (16 p.).

This is a short brochure which provides energy-conserving ideas for homeowners, builders, lenders, planners, realtors. The brochure contains tips on siting, design, construction, heating/cooling/lighting/water systems, and solar energy. The ideas presented are concise and to the point.

Order from: Grand Junction Public Energy Information Office, City Hall, 250 N. 5th St., Grand Junction, CO 81501

The Energy Show. Garde, Anne; Leprohon, Angie. Helena, Mont.: New Western Energy Show; 1978. (42 p.) $2.75.

This is a play script which is appropriate for teaching grade schoolers about energy in an entertaining way. The minimum cast uses six characters. It includes music for four songs and comments on the set, the stage, and the characters.

Order from: New Western Energy Show, 842 5th Ave., Helena, MT 59601

Free **First Steps to Energy Conservation for Business.** Rev. ed. Office of Energy Conservation. Ottawa, Ontario: 1977. (21 p.).

This booklet describes the initial steps involved in establishing an energy conservation program for smaller businesses. The programs and actions presented were culled from plans in large corporations and modified to suit smaller firms. The principal concerns here are organizing an energy conservation committee and executing an energy audit. There is a detailed checklist for conserving energy.

Order from: Office of Energy Conservation, 580 Booth St., Ottawa, K1A 0E4, Ontario, Canada (EMR Report E177-4)

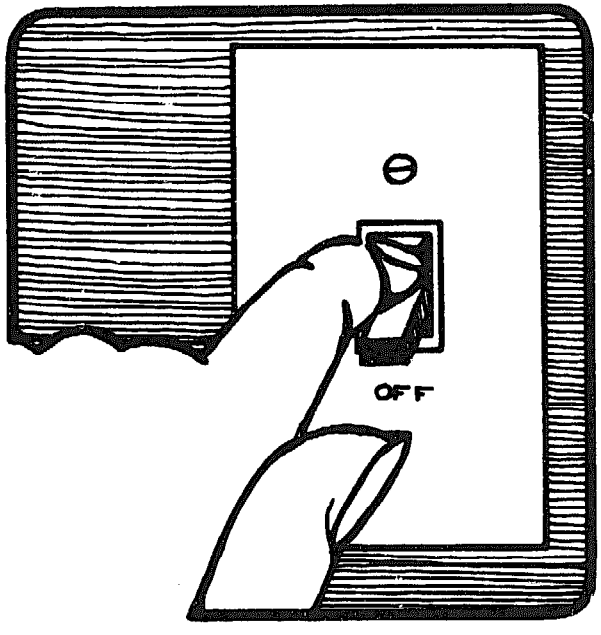
547 Easy Ways to Save Energy in Your Home. Albright, Roger. See **survivor's kit.**

From the Walls In. Wing, Charles. Boston, Mass.: Little, Brown and Co.; 1965. (226 p.) $9.95.

The book presents all the techniques, facts, and figures needed to remodel, modernize, and retrofit older homes to improve their energy efficiency. The book provides information on how to insulate walls, attics, floors, windows, doors, shades, and shutters. The importance of weatherstripping and caulking is discussed, as are the advantages of solar retrofitting and woodburning. In addition, the book covers how forces such as building materials, people, snow, and wind affect a building internally and externally; this helps an individual to repair a damaged frame or even alter or open interior spaces without damaging either the integrity of the whole structure or its original exterior design.

Order from: Little, Brown and Company, 200 West St., Waltham, MA 02154

The Fuel Savers: A Kit of Solar Ideas for Existing Homes. Scully, Dan; Prowler, Don; and Anderson, Bruce.
See **survivor's kit.**



Hawaii Home Energy Book. Pearson, Jim. Honolulu, Hawaii: The University Press of Hawaii; 1978. (183 p.) $8.95.

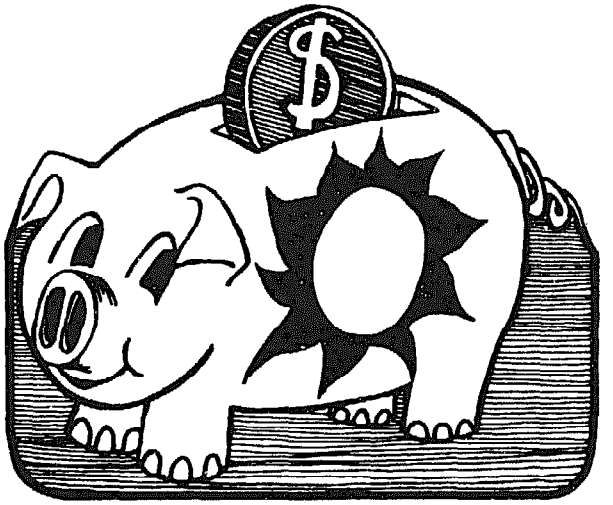
This book stresses energy conservation in the semitropical climate of Hawaii and introduces energy-saving concepts and products in single- and multi-family dwellings. It covers such topics as solar control, insulation, ventilation, daylighting, artificial lighting, appliances, solar water heating, wind power, and landscaping. The appendices contain information on meter reading and the Hawaii Solar Tax Law. There is an extensive bibliography for further reading.

Order from: University of Hawaii Press, Honolulu, HI 96822

Home Energy How-To. Hand, A.J. New York: Harper & Row Publishers, Inc.; 1977. (258 p.) $9.95.

This Popular Science book is designed for energy-conscious home dwellers who want to reduce home fuel costs, conserve fossil fuels, and rely on alternative forms of energy. The comprehensive guide uses over 200 drawings, photographs, maps, and tables to supplement the text. Part One deals with conserving energy by altering daily living habits and by making home improvement modifications such as insulating, caulking, and weatherstripping. The author evaluates types of materials and their costs and payback times and provides step-by-step instructions. Two chapters on conventional heating and cooling systems have details for cleaning, maintaining, and modifying existing systems to provide maximum efficiency. The chapter on energy-efficient architecture contains ideas for existing homes and special considerations for specific climates. Part Two describes methods to produce and harness alternative forms of energy (solar, wind, wood, water, and biofuels). The author presents state-of-the-art information, including costs and payback schedules, as well as future potential for each type of alternative energy source. He evaluates commercially built systems and equipment, supplies lists of manufacturers and distributors, and details how to construct homemade systems.

Order from: Harper & Row Publishers, Inc., 10 E. 53rd St., New York, NY 10022
Also: Active Solar; Wind; Wood-burning; Passive



The Homeowner's Energy Guide: How to Beat the Heating Game. Murphy, John A. Columbus, Ohio: Cromell Publishing Co.; 1976. (215 p.) $9.95.

This is the book the industrious homeowner needs before undertaking all those do-it-yourself projects. The workbook format enables the homeowner to calculate potential savings, costs, and payback for various energy-conserving measures. By converting heat loss into heating dollar costs, the homeowner can analyze all components of the house (ceilings, exterior walls, doors, windows, floors, and basements) and determine costs of each under a variety of conditions. The author also examines solar gains, hot water, fireplaces, solar heat, humidity, and heat pumps. Illustrations and nontechnical explanations of terms make the material easy to understand. Sixteen technical appendices supply additional data, mostly in chart form. There is a short bibliography.

Order from: Harper & Row Publishers, Inc., Keystone Industrial Park, Scranton, PA 18512

Homeowner's Guide to Saving Energy. Price, Billy L.; Price, James T. Blue Ridge Summit, Pa.: TAB Books; 1976. (288 p.) $5.95.

This guide presents simple tasks the homeowner or renter can undertake to reduce electricity and fuel bills. Methods for insulating and weatherstripping are described. It discusses routine maintenance and tuning of heating and cooling systems, and suggests conserving ways to use household appliances and lights.

Order from: TAB Books, Blue Ridge Summit, PA 17214

Free

The Household Energy Game. Smith, Thomas W.; Jenkins, John. Madison, Wis.: University

of Wisconsin Marine Studies Center; 1974. (20 p.).

This "game" comes complete with tally sheets and a sample grid noting average household energy use. It covers only categories over which a homeowner can exercise control: transportation, home heat, hot water, air conditioning, refrigerator, freezer, washer, dryer, television, small appliances, cooking, and lighting. By totaling points and coloring the appropriate squares on a grid you can compare your energy use with that of the average household. There's more! To win, save points by "adopting" energy-saving measures; compare old and new and reduced energy budgets. This is a fun, easy method for calculating household energy use.

Order from: Sea Grant Communications Office, 1800 University Ave., Madison, WI 53706

How To Do Your Own Home Insulating. Meyers, L. Donald. New York: Harper & Row Publishers, Inc.; 1978. (170 p.) $3.95.

This skill book helps the homeowner winterize his/her home, thus saving both energy and money. It includes information on financing home improvements. Worksheets and calculations allow the reader to determine current energy loss, future fuel costs, and potential savings of the various winterizing projects for homes located anywhere in the United States. Information for determining specific needs and selecting materials is presented; the author emphasizes insulating. Clear, precise, well-illustrated instructions detail how to insulate ceilings, walls, floors, and basements. Other chapters cover weatherstripping, caulking, and installing storm windows and doors. Although most of the jobs can be undertaken by the do-it-yourself method, the author indicates when he feels a contractor should be hired.

Order from: Harper & Row Publishers, Inc., 10 E. 53rd St., New York, NY 10022

How to Save Money by Insulating Your Home: Practical Instructions and Advice. Federal Energy Administration, Washington, D.C.: U.S. Government Printing Office; 1976. (8 p.).

This pamphlet provides concise information on home insulation. It lists types of insulation, but does not evaluate them. It explains the R-rating for insulation; advises which to use for attic floors, walls, and floors; and gives calculations to determine the quantity of insulation needed. There are step-by-step illustrated directions for installing insulation in the various areas of the house as well as "dos and don'ts" hints. Included are basic information and instructions for ventilating attics and crawl spaces. For the non-do-it-yourselfer, there is a checklist of suggestions for hiring an insulation contractor. A very brief section on installing storm windows and doors, weatherstripping, and caulking concludes this pamphlet.

Order from: Northern Indiana Public Service Co., 5265 Hohman Ave., Hammond, IN 46325 (FEA/D-75/708)

In the Bank or Up the Chimney? A Dollars and Cents Guide to Energy Saving Home Improvements. U.S. Department of Housing and Ubran Development.
See **survivor's kit.**

Kilowatt Counter: A Consumer's Guide to Energy Concepts, Quantities, and Uses. Friend, Gil; Morris, David. Milaca, Minn.: Alternative Sources of Energy; 1975. (36 p.) $2.00.

The *Kilowatt Counter* is a guide to energy usage in the home. It explains common energy measurements and how to convert from one unit to another by using simple arithmetic. There are descriptions of types of fossil fuels, nuclear energy, solar energy, wind energy, and biomass, including efficiency ratings for each. Excellent graphs, charts, and tables illustrate household appliance energy consumption, BTU content of fuels, and energy flow. This practical tool allows an individual to make informed decisions regarding buying habits, energy consumption and conservation, and environmental responsibility. Group discounts are possible.

Order from: Alternative Sources of Energy, Rt. 2, Box 90 A, Milaca, MN 56353
Also: Solar (General)

Lifestyle Index. Pierotti, Anne; Fritsch, Albert J. Washington, DC.: Citizens' Energy Project; 1977. (32 p.) $2.00.

The *Lifestyle Index* traces where energy comes from and where it goes to enable a person to pinpoint energy uses. Energy use

is divided into five areas: food, housing, clothing and personal care, transportation, and social and government services. Minute breakdowns within each area permit an individual to calculate personal energy use for specific items and to compare usage with average American standards. Charts, diagrams, and tables provide information for the calculations.

Order from: Citizens' Energy Project, 1110 W. 6th St. NW #300, Washington, DC 20001

Low-Cost, Energy-Efficient Shelter for the Owner and Builder. Eccli, Eugene, ed. Emmaus, Pa.: Rodale Press, Incl; 1976. (408 p.) $5.95.

The architectural, engineering, and scientific expetise of nine energy-conscious professionals has been brought together to provide realistic and practical solutions to problems of high-cost home building and maintenance. This publication spans the range from simple winterizing projects to a full-scale design and construction program for building or remodeling. Emphasis throughout is placed on energy efficiency and aesthetic appeal. The 70-page solar section concentrates on principles for integrating and harmonizing the sun and natural environment into home design. The final section includes sample site plans, materials list, and plans and specifications for fourteen low-cost, energy-efficient homes. Other topics include financing, site planning, efficient utilization of space and materials, renovation and recycling of older buildings and materials, interior and exterior materials, and window planning. A chapter-by-chapter bibliography has brief annotations for most references. A glossary of construction terms and an index complete the book.

Order from: Rodale Press, Inc., 33 E. Minor St., Emmaus, PA 18049
Also: Passive

Mickey Mouse and Goofy Explore Energy Conservation. Walt Disney Educational Media Company. Burbank, Calif.: 1978. (34 p.).

The ever-patient Mickey teaches Goofy about ways to save energy in the home while doing everyday tasks. Afterwards the two lovable Disney characters explore the basics of solar, wind, and geothermal power. At the end, Mickey offers some energy conservation tips. This comic book makes energy conservation fun for young people.

Order from: EXXON U.S.A., Public Affairs Department, P.O. Box 2180, Houston, TX 77001
Also: Solar (General); Wind

Natural Energy Workshop #2. Clark, Peter; Landfield, Judy. Berkeley, Calif.: Visual Purple; 1976. (128 p.) $3.95.

This book focuses on energy conservation through the application of renewable resources (sun, wind, water, and photosynthetic fuels). It gives simple experiments which demonstrate the concepts of regenerative conversion in lay terms. Basic scientific and engineering principles are explained as they relate to specific conversion techniques and construction approaches.

Order from: Visual Purple, Box 996, Berkeley, CA 94701
Also: Solar (General); Wind

The Owner-Built Home. Kern, Ken. Rev. ed. New York: Charles Scribner's Sons; 1975. (374 p.) $6.95.

The author presents a "how-to-think-it" book for people who want to build their own low-cost home. It includes illustrations, bibliography, and index.

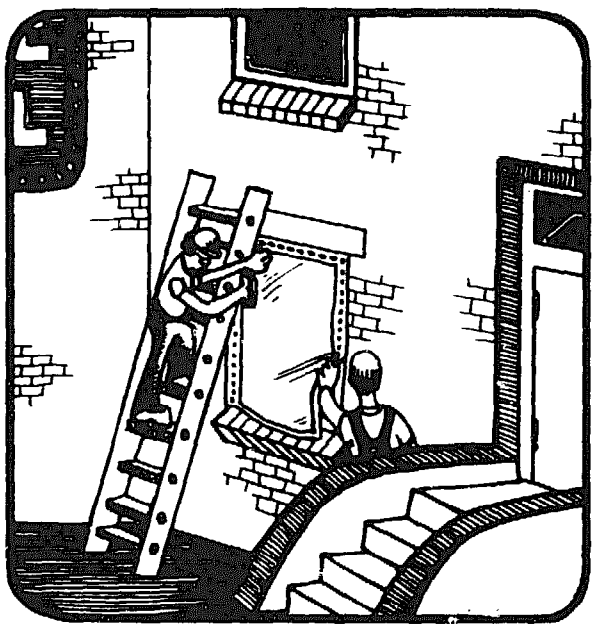
Order from: Charles Scribner's Sons, Book Warehouse, Vreeland Ave., Totowa, NJ 07512

Plain Talk about Buying or Building an Energy-Efficient Home. Texas Energy Extension Service. College Station, Tex.: 1978. (9 p.).

This booklet shows the prospective homeowner how to save with energy-conserving construction and equipment. It concentrates on four areas for achieving energy conservation in new homes: thermal resistance, efficient systems, attic ventilation, leakage reduction. It includes an informative discussion of the energy efficiency ratio (EER) and how high EER air conditioners and heat pumps can reduce utility bills. Based on 1978 costs, a 2,000 square foot home using the energy-conserving items mentioned would cost between $1,000 and $1,500 more than one built without them, and would result in $200 to $250 annual energy savings. Solar systems are not included in this booklet. Subjects

covered are relevant to the hot southern climate of Texas.

Order from: Texas Energy Extension Service, Office of the Director, Texas A&M University, College Station, TX 77843



Retrofitting: The Thermal Upgrading of Buildings. Wing, Charlie. Falmouth, Maine: Environmental Energy Education Project; 1977. (26 p.) $3.25.

This booklet is a compilation of talks delivered by the author in the spring of 1977. The topics are 1) Retrofitting Old Houses, 2) Condensation and Vapor Barriers, 3) Solutions to the Vapor Barrier Problem, and 4) How Much of Which Insulation. It contains practical information for the do-it-yourselfer.

Order from: Environmental Energy Education Project, Maine Audubon Society, Rt. 1, Falmouth, ME 04105

Solar '77. Wenzel, Gene. Washington, D.C.: U.S. Government Printing Office; 1978. (38 p.) $1.80.

This manual provides basic knowledge of conservation and system features for an efficient, cost-effective solar dwelling. It covers new home design and retrofit applications.

Order from: Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402 (Stock #061-000-00093-3)
Also: Active Solar; Passive Solar

Thermal Shutters and Shades. Shurcliff, William A. Cambridge, Mass.: 1977. (200 p.) $12.00.

This book is a survey of over 100 ideas for reducing heat loss through large, vertical, double glazed south windows. Many ideas, tried and untried, are described with information on economics as well as heat transfer. This is an interesting book for anyone interested in passive solar heating.

Order from: William A. Shurcliff, 19 Appleton St., Cambridge, MA 02138
Also: Passive Solar

30 Energy-Efficient Houses... You Can Build. Wade, Alex; Ewenstein, Neal. Emmaus, Pa.: Rodale Press, Inc.; 1977. (316 p.) $8.95.

This book, written by an architect, seeks the average prospective home buyer as its audience rather than the professional architect or builder. The author offers designs of existing houses which range from medium-sized, basic units for one to two persons to full-sized family homes. Several of the examples utilize solar systems. The description for each house contains a set of plans, technical data and numerous black and white photographs as well as a lengthy personal account of the various stages of construction. The information on products, materials, and construction has been gleaned from the author's 20 years of trial and error experience; he cites books and other sources which he has found to be especially helpful. Although most of the plans were designed by the author, he supplies a list of addresses for the other five architects mentioned and a list of five contractors from various parts of the United States who have worked with energy-efficient designs. A glossary of construction terms precedes the text.

Order from: Rodale Press, Inc., 33 E. Minor St., Emmaus, PA 18049
Also: Active Solar; Passive Solar

Your Guide to Good Shelter: How to Plan, Build, or Convert for Energy Conservation. Waschek, Carmen; Waschek, Brownlee. Reston, Va.: Reston Publishing Co.; 1978. (237 p.) $12.75.

The underlying premise of this book is that a well-designed home should be structurally sound, functional, aesthetic, livable and affordable. Drawing on the experience acquired in building their own home and emphasizing energy conservation, the authors offer a realistic, common sense approach to the process of planning, designing, and building a home. Many of the suggestions can also be applied to existing homes. More innovative energy conservation measures, including solar energy

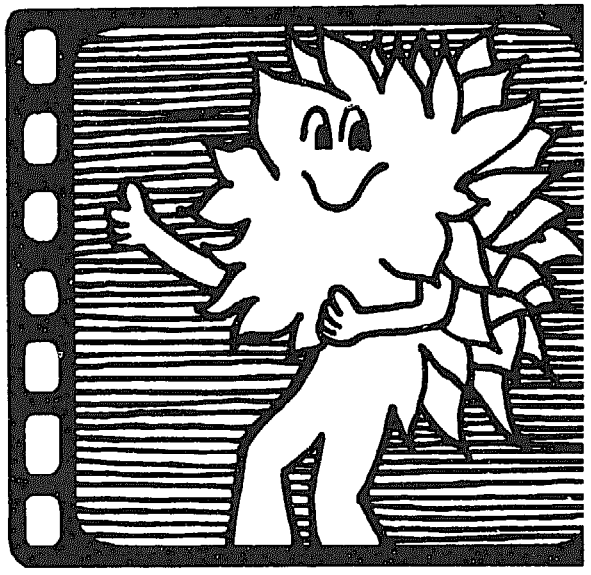
systems, are briefly mentioned. The two appendices are a checklist to estimate your home-building power and a list of suppliers for home plans. This book is written in a conversational, informal style and is devoid of technical jargon.

Order from: Reston Publishing Co., Prentice-Hall, Inc., Englewood Cliffs, NJ 07632
Also: Passive Solar

Your Home's Solar Potential: The Do-It-Yourself Solar Survey. Spetgang, Irwin; Wells, Malcolm. Barrington, N.J.: Edmund Scientific Co.; 1976 (60 p.) $9.95.

This workbook presents a do-it-yourself survey to rate your existing home's solar potential. By answering the questions and filling out the score sheet you can obtain a customized evaluation of your home's solar potential and determine the solar system most suitable for your home. This survey is useful primarily for the temperate zones. A three-bedroom, split-level, frame construction home in Philadelphia was used as an example. The book includes a list of energy conservation options applicable to every home and a brief illustrated overview of types of solar systems. The authors list four key sources of information on solar heating technology.

Order from: Edmund Scientific Co., 150 Edscorp Building, Barrington, NJ 08007
Also: Active Solar



films/slides

Bill Loosely's Heat Pump.
1977.

10 minutes
16mm, color
$150/purchase; $15/rental

Bill Loosely, an engineer living in snowbound Ontario, has been heating his home since 1951 by gathering warmth from the ground outdoors and pumping it inside. How he does it is clearly explained in the film and illustrated with animated diagrams.

Order from: Bullfrog Films, Oley, PA 19547

Down to Earth City Living.
1977.

18 minutes
16mm, color
$250/purchase; $190/videotape purchase; $30/rental

The film depicts the alternatives used at the Integral Urban House in Berkeley, California, to transform a typical urban residence into a nearly self-sufficient habitat. This model household is a glowing example of steps people can take to improve the urban environment and their own lives.

Solar energy is integrated into the house to provide economical and efficient heating. The house roof and backyard are utilized optimally to furnish the dwellers with a year-round assortment of vegetables; organic waste is recycled and transformed into plant nutrients for use in the garden. Poultry, bees and domestic animals provide the necessary supplemental nourishment.

Order from: Pyramid Films, Box 1048, Santa Monica, CA 90406

Home Energy Conservation.
Seattle, Wash.: Ecotope Group; 1978.

69 slides with script and cassette $60 (approx.)/purchase

The slide show covers the steps to home energy conservation—everything from turning down thermostats and wearing warm clothes to insulating floors and dealing with cathedral ceilings. R-factors, infiltration, and vapor barriers are explained. The slide show ends by presenting several good books for further reading.

Order from: Ecotope Group, 2332 East Madison, Seattle, WA 98112

The Hottest Show on Earth. Oakland, Calif.: Audio Brandon Films, Inc.; 1977.

28 minutes
16mm, color
$350/purchase; $35/rental

A lively and entertaining film which makes a serious point—the importance of home insulation in light of energy shortages and escalating fuel costs. The film, made in Canada, includes a brief history of energy consumption, infrared photography of cities and houses which demonstrate heat loss; animated sequences which simplify basic principles such as the R-factor of insulation materials; and effective measures which can be taken to insulate, such as storm windows, furnace maintenance and insulation.

Order from: Macmillan Films, Inc., 34 Mac Questen Parkway South, Mt. Vernon, NY 10550

Hot Water Conservation. Seattle, Wash.: Ecotope Group; 1978.

40 slides with script and cassette $60 (approx.)/purchase

This is a good slide show which covers steps to use less hot water and how to save what heat is needed, by insulating. Includes a step-by-step description of how to fix a leaky faucet, discussion of flow restrictor shower heads, step-by-step approach to insulate a hot water tank and pipes, and considerations for buying a new water heater.

Order from: Ecotope Group, 2332 East Madison, Seattle, WA 98112

Infiltration & Ways to Beat It. Seattle Wash.: Ecotope Group; 1978.

37 slides with script and cassette
$60 (approx.)/purchase

This is a good step-by-step slide show detailing specific ways to cut down on heat loss in the home. Instructions on how to install door thresholds and apply weatherstripping are given, as are directions for caulking properly around doors, windows, and foundations. Less publicized activities such as mending broken windows and plugging fireplaces when not in use are also given. The slide show ends with a discussion of the costs of applying the various techniques on a particular home.

Order from: Ecotope Group, 2332 East Madison, Seattle, WA 98112

One Way to Weatherization: A CAP in the Gap—Cumberland, Maryland. 1976.

26 minutes
16mm, color
$150/purchase; loans not available

Although primarily made to instruct Community Action Program (CAP) workers in proper weatherization techniques, the film would be appropriate for any group wishing to learn how to caulk, weatherstrip, install thresholds, make plastic storm windows, insulate attics and furnace ducts, and learn which tools to use and how to use them properly.

Order from: Monumental Films and Recording, 2160 Rockrose and Malden Aves., Baltimore MD 21211

We Will Freeze in the Dark. 1977.

42 minutes
16mm, color
$630/purchase; $66/rental

This was originally a TV documentary narrated by correspondent Nancy Dickerson. It begins on a futuristic note where two men enter a suburban household one evening and proceed to unplug electrical appliances and padlock the oven and refrigerator. The rest of the film explains the need for conservation if the country is to avoid a very serious economic and energy crisis. It shows that, since the Truman administration, upcoming energy shortages have been predicted, but that little has been done to establish policies that would conserve energy. It underscores the possibility of saving energy, especially in industrial processes. The conservation efforts of a number of industrial firms are highlighted. The film ends with a challenging note to American citizens and government alike to start saving energy.

Order from: CRM, McGraw-Hill Films, 110 15th St., Delmar, CA 92014
Also: Policy

Time did not permit review of this last-minute addition.

A Crew Worker's Guide to Weatherization.

slide set

Order from: Midland Energy Institute, 900 Grand, Kansas City, MO 64106

solar (general)

AERO's Sun Fun Coloring Book. Alternative Energy Resources Organization (AERO). Billings, Mont.: 1978. (13 p.) $.50.

This fun learning tool for kids includes cartoons and pictures to color which illustrate solar, geothermal, and wind energy and wood heat. It also includes a puzzle, dot-to-dot drawing, and a matching project.

Order from: AERO, 435 Stapleton Building, Billings, MT 59101

At Home in the Sun: An Open-House Tour of Solar Homes in the United States. Davis, Norah Deakin; Lindsey, Linda. Charlotte, Vt.: Garden Way Publishing Co.; 1979. (235 p.) $9.95.

Thirty solar homes which vary in size from 600 to 4,000 square feet and range in price from $4,000 to $120,000 are described in this book. Technical data, diagrams, and pictures are included for each home as well as the homeowner's very personal narrative describing the joys and problems of living in a solar home. The book contains 21 pages of color photographs and a short discussion of the principles of solar heating.

Order from: Garden Way Publishing Co., Charlotte, VT 05445

Free

A Bibliography for the Solar Home Builder. Aitken, Donald W. Sacramento, Calif.: California Office of Appropriate Technology; 1979. (38 p.).

This bibliography represents the author's personal recommendations of the best books for those interested in building solar homes. Its focus is on California and the Western region, though not exclusively. Annotations are more inclusive than most general bibliographies, and include cost and ordering information. They are divided into the following chapters: Solar Home Design, Helpful Information for the Beginning Solar Home Builder, Advanced Books for the Serious Solar Student, and Keeping Up with Solar Developments (places and journals for more information).

Order from: Office of Appropriate Technology, 1530 Tenth St., Sacramento,

CA 95814
Also: Greenhouses; Passive Solar

The Best Present of All. Houck, Oliver A. Washington, D.C.: National Wildlife Foundation; 1974. (23 p.) $.15.

The tale of a king's search for the best present for his kingdom's children is told in this comic book-sized format with beautiful color illustrations. He decides that ice cream and cookies are not enough. He lets all the major energy sources present their qualifications, pro and con, until he finds the two—solar and geothermal—that can give his children and their descendants the gifts of warmth and light forever without destroying the other things in life they will always want and need. Quantity discounts are available.

Order from: National Wildlife Foundation, 1412 16th St. NW, Washington, DC 20036

California Sunshine...A Consumer Guide to Solar Energy. California Energy Commission. Sacramento, Calif.: 1977. (95 p.).

This booklet was compiled for California consumers who want to install solar systems. It explains solar energy, how to use passive and active systems, and the costs. There are suggestions for selecting a consultant, buying from a manufacturer, and undertaking do-it-yourself projects. There are descriptions of California solar projects which can be visited. The groups, organizations, and printed materials mentioned provide invaluable sources for the potential California consumer.

Order from: California Energy Commission, 1111 Howe Ave., Sacramento, CA 95825
Also: Active Solar; Passive Solar

The Complete Solar House. Cassiday, Bruce. New York: Dodd, Mead & Co.; 1977. (212 p.) $8.95.

This is not a do-it-yourself manual, but rather an introduction to the use of solar energy in the home, including cost analyses, for the layperson. The contents include an introductory chapter on solar energy; a history of pioneers in the field; a description of solar collectors, storage units, and distribution systems; a look at typical solar hot water and swimming pool heating, space heating, air conditioning, and heating/cooling systems; and an analysis of retrofitting. One chapter shows how much sunshine can be expected each month of the year in various geographic locations. The appendices list manufacturers of solar components and sources of information about solar energy.

Order from: Dodd, Mead & Co., 79 Madison Ave., New York, NY 10016

Consumer Awareness in Solar Energy. Hawaii State Energy Office, Department of Planning and Economic Development. Honolulu, Hawaii: 1977. (70 p.).

The report summarizes the proceedings of a workshop on consumer awareness in solar energy which was held December 1, 1977, in Honolulu. The report includes the papers which were presented as well as the questions asked by the audience and answers given. Papers cover basic information on solar water heaters, homeowners' experiences, public and private financing, consumer information, and home design considerations. The appendices include short fact sheets on sizing, Hawaii's tax c edit, warranties, and consumer protection. Much of the information presented is Hawaii-specific.

Order from: Hawaii State Energy Office, Department of Planning and Economic Development, 1164 Bishop St., Honolulu, HI 96813

Designing and Building a Solar House: Your Place in the Sun. Watson, Donald. Charlotte, Vt.: Garden Way Publishing Co.; 1977. (281 p.) $8.95.

This very practical, clearly written book treats all aspects of solar home design. It relates climate areas (cool, temperate, hot-dry, and hot-wet) to general building design, and describes ways local climatic information (solar radiation, wind and air flow, precipitation, and humidity) can be used in siting a home. There is one chapter devoted to solar house design in northern climates which gives an economic comparison of six solar heating alternatives. Separate chapters cover the specifics of active and passive systems in nontechnical language; descriptions and illustrations of various residences supplement information for both concepts. The final chapter on building contains checklists for site planning and building design as well as tips for evaluating solar equipment in terms of cost,

performance, and durability. The appendices comprise over one-third of the book and offer invaluable resource information.

Order from: Garden Way Publishing Co., Charlotte, VT 05445
Also: Active Solar; Passive Solar

Earth, Water, Wind, and Sun: Our Energy Alternatives. Halacy, Daniel S., Jr. New York: Harper & Row Publishers, Inc.; 1977. (186 p.) $8.95.

This general overview describes historical development, current and potential use, advantages and disadvantages, accessibility, economic feasibility, and environmental impact for each of the energy alternatives. A short bibliography subdivided by subjects and an index complete this work, noted for illustrations and good writing.

Order from: Harper & Row Publishers, Inc.; 10 E. 53rd St., New York, NY 10022

Educational Materials Bibliography. New Mexico Solar Energy Association (NMSEA). Santa Fe, N. Mex.: 1978. (4 p.) $.50.

This brief but well-selected bibliography identifies materials specially developed for a variety of ages and educational settings. Listings are included under the following headings: education reference, elementary, secondary, post-secondary, vocational and projects.

Order from: NMSEA, P.O. Box 2004, Santa Fe, NM 87501

Energy from the Sun. Berger, Melvin. New York: Thomas Y. Crowell Co. 1976. (33 p.) $5.95.

A very well-written and nicely illustrated book for elementary grades. Explanations of the concept and role of energy are presented in a non-abstract way. The book shows the sun as the source of nearly all energy and the force needed for all our food and energy needs, and uses examples that everyone has experienced, such as the sidewalk hot enough to fry an egg on, to demonstrate ways in which solar energy can be transformed into other energies. Implicit throughout the book is the reader's dependence on a whole chain of energy (solar) relationships; the end message is that the reader can take an active role in influencing those energy relationships.

Order from: Harper & Row Publishers, Inc.; Keystone Industrial Park, Scranton, PA 18512

The Growth of Solar in Wisconsin. Albright, Bonnie. Madison, Wis.: Department of Administration, Office of State Planning and Energy; 1978. (72 p.).

The scope of this book is definitely limited to Wisconsin. It provides an overview of solar energy use in Wisconsin, including a brief description of climatic, regional and seasonal variations. There is a question-and-answer section devoted to the new alternative energy system tax credit law. There is a catalog of solar installations, arranged alphabetically by town or city with a brief description (if available) of the application. One appendix contains a compilation of solar professionals in Wisconsin.

Order from: Solar Coordinator, Office of State Planning and Energy, P.O. Box 511, Madison, WI 53701

Handbook of Homemade Power. *Mother Earth News.* Hendersonville, N.C.: Bantam Books, Inc.; 1974. (374 p.) $1.95.

The book focuses on the nitty-gritty details of building devices which use alternative sources of energy. It covers heating and cooking with wood, construction and operation of water wheels and wind generators; solar heat, showers, and ovens; and methane digesters. The book uses a homey interview format with do-it-yourselfers where possible. Many of the articles originally appeared in the *Mother Earth News.*

Order from: Bantam Books, Inc., 666 Fifth Ave., New York, NY 10019

Here Comes the Sun: A Guide Book for Massachusetts People Interested in Learning about Solar Energy. Sullivan, Christine B. Boston, Mass.: Solar Action Office; 1978. (26 p.).

This booklet was written to acquaint Massachusetts citizens with basic information on solar energy and how it can be used in the Northeast. It explains passive concepts of direct gain with south-facing windows, south-facing "thermal storage

walls," and greenhouses on south-facing walls. A description of active flat plate collector systems and components compares advantages and disadvantages of air and liquid systems. Basic consumer concerns are explained in a question and-answer format. The section covering the economics of solar includes tips for potential buyers of solar energy systems. A brief glossary of solar terms is included.

Order from: Solar Action Office, Room 1413, One Ashburton Pl., Boston, MA 02108
Also: Active Solar; Greenhouses; Passive Solar

Homegrown Sundwellings. Van Dresser, Peter. Santa Fe, N. Mex.: The Lightning Tree; 1977. (135 p.) $5.95.

This book is an outgrowth of the Sundwellings Program which was developed in New Mexico to design self-help solutions to problems of shelter, energy, and food shortages. It gives design principles for simple, solar-assisted homes, built of materials indigenous to the Southwest. Chapters cover principles of climatic adaptation, windows and ventilation, siting and landscaping, food production, solar water heating, and aspects unique to New Mexico. Appendices comprise one-third of the book, including a glossary, sample designs, budgets and reports for the program, solar crop dryers, and The Ghost Ranch demonstration buildings. The bibliography is subdivided by topics: 1) Building Techniques Appropriate to the Southwest; 2) Food Storage; 3) Greenhouse Design and Management; 4) Siting, Landscaping, Gardening, Small Animal Husbandry; 5) General Solar Heating Technology; 6) Solar Water Heaters and Driers; and 7) Wood. An index completes the book.

Order from: The Lightning Tree, P.O. Box 1837, Santa Fe, NM 87501
Also: Energy Conservation; Greenhouses; Passive Solar; Policy

Homeowner's Guide to Solar Heating and Cooling. Foster, William M. Blue Ridge Summit, Pa.: TAB Books; 1976. (136 p.) $4.95.

The author offers general information on solar systems, components, and sizing. He cites factors an individual should consider in determining the economic feasibility of a solar heating, hot water, or swimming pool system. The chapter entitled "Precautions and Advice for Consumers" suggests reviewing actual performance data, determining regulations and standards, checking out the reputation of firms before buying, and learning about applicable legal considerations. The appendices contain a glossary, a list of 22 solar manufacturers, and an extensive bibliography.

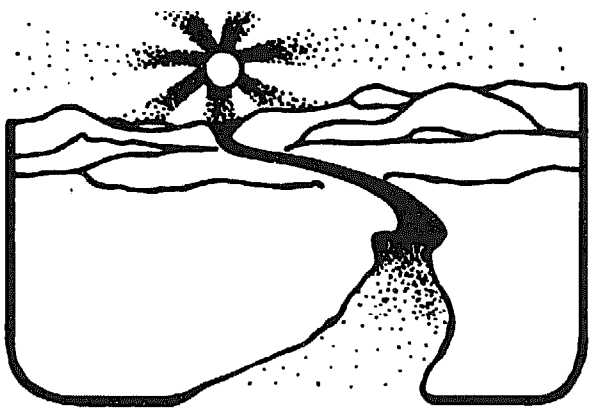
Order from: TAB Books, Blue Ridge Summit, PA 17214

How to Buy Solar Heating...Without Getting Burnt! Wells, Malcolm; Spetgang, Irwin. Emmaus, Pa.: Rodale Press, Inc.; 1978. (262 p.) $6.95.

This book is well-written and provides a potential solar consumer with practical information necessary for making a purchasing decision. The book covers the following topics: solar basics, insulation (including a detailed description on how to insulate attics, windows, crawl spaces, furnaces, and hot water tanks), how to determine if your home is suited for solar energy, a solar options chart which provides recommendations for solar options based on a household's response to a survey (included in the book), a chapter on contracts and contractors which includes examples of good contracts and identifies potential contract problems, solar access, and how to finance solar. All chapters contain reading lists.

The appendix contains a reader's checklist of key points to consider when buying solar, plus a list of solar collector manufacturers, solar directories, and Federal solar publications.

Order from: Rodale Press, Inc., 33 E. Minor St., Emmaus, PA 18049
Also: Energy Conservation; Active Solar; Domestic Hot Water



How to Use Solar Energy in Your Home and Business. Lucas, Ted. Pasedena, Calif.: Ward Ritchie Press; 1977. (315 p.) $7.95.

Here is an excellent overview of practical solar applications with an emphasis on active systems. The author supplies detailed information in a nontechnical style easily understood by the beginner. Subjects include an analysis of various commercial solar hot water heaters, solar heating for swimming pools and spas, solar cooling, and solar energy for businesses. Other topics are solar water heating, liquid-type solar space systems, air-type solar collector systems, automatic controls for solar heating, and windmills as power plants. One chapter covers passive techniques. There are a glossary of technical terms, a bibliography, and an index.

Order from: Ward Ritchie Press, 474 Arroyo Parkway, Pasadena, CA 91105
Also: Active Solar; Domestic Hot Water
Passive Solar; Wind

National Solar Energy Educational Directory. O'Connor, Kevin. Golden, Colo.: Solar Energy Research Institute; 1979. (279 p.) $4.75.

This represents the results of the first national attempt to identify all college, university, and some vocational/technical courses in solar energy. It identifies more than 700 educational institutions that are offering over 1,200 solar-related courses; at least 160 have actual degree-related programs and curricula. Individual state directories are available free from the National Solar Heating and Cooling Information Center.

Order from: Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402 (Stock #061-000-00210-3)

Free **NCAT Bibliographies.** National Center for Appropriate Technology (NCAT). Butte, Mont.: 1978. (6-14 p. each). Single copies free, multiple copies $.25 each.

NCAT publishes six annotated bibliographies dealing with Solar Energy (#B001), Wind (#B002), Organizing Community Gardens (#B003), Economic Development (#B004), Building and Energy (#B005), Alternative Waste Systems (B1006). The bibliographies are not exhaustive; they identify useful, introductory-level publications.

Order from: NCAT, P.O. Box 3838, Butte, MT 59701
Also: Wind

The 1978 SUN Catalog. Solar Usage Now, Inc.; Bascom, Ohio: 1978. (222 p.) $2.00.

This catalog of solar hardware, kits, and components has a chapter on books, plans, and magazines. Prices and order blanks are included. The table of contents and index facilitate finding specific items.

Order from: Solar Usage Now, Inc., Box 306, Bascom, OH 44809

Northeast Yellow Pages of Solar Energy Resources. Shaw, Elizabeth, ed. Brattleboro, Vt.: New England Solar Energy Association (NESEA); 1978. (71 p.) $2.00.

A directory of solar and other alternative energy products and services available to the consumer in the New England states. The directory is organized alphabetically, geographically, and by topic. Topics include environmental measures and site analysis, information services, solar components suppliers, installers, waste managers, wind, wood energy, insulation, and energy-saving devices.

Order from: NESEA, P.O. Box 541, Brattleboro, VT 05301

Other Homes and Garbage. Leckie, Jim et al.
See **survivor's kit.**

Practical Sun Power. Rankins, William H. III; Wilson, David A. Black Mountain, N. C.: Lorien House; 1975. (51 p.) $4.00.

This is a collection of 8 basic solar projects which can be made at home by an amateur using basic hand tools and easily acquired materials. Each project contains step-by-step building instructions, photos, drawings, complete plans for construction, parts lists, sources, exact specifications on materials, approximate prices, charts, and calculations. The projects are 1) cylindrical and spherical parabolic reflectors for cookers, heating, and boiling water; 2) solar box oven; 3) flat plate water heater; 4) window box heater; 5) conversion to electricity; 6) sundial; 7) fresnel lens; and 8) solar still. All ages will be interested in these projects. A

bibliography of ten references completes the work.

Order from: Lorien House, P.O. Box 1112, Black Mountain, NC 28711
Also: Greenhouses; Passive Solar

Producing Your Own Power: How to Make Nature's Energy Sources Work for You. Stover, Carol Hupping, ed. Emmaus, Pa.: Rodale Press, Inc.; 1974. (322 p.) $8.95.

This collection of articles presents recent developments in alternative energy sources. Most of the contributors have designed and built their own small-scale power systems. Topics covered include building or erecting windpower plants, building a hydraulic ram, heating and cooking with wood, making methane gas, and constructing homemade solar water heaters.

Order from: Rodale Press, Inc., 33 E. Minor St., Emmaus, PA 18049
Also: Domestic Hot Water; Wind; Wood-burning

Free **Put the Sun to Work Today.** U.S. Department of Energy (DOE). Washington, D.C.: U.S. Government Printing Office; 1978. (28 p.).

This booklet acquaints the lay public with solar energy in today's world. Color diagrams and sketches and nontechnical language combine to make this publication a pleasant, basic introduction to the subject of solar energy and all it encompasses. The magnificent color photographs illustrate how solar elements can be integrated into new home designs to lend a dramatic appearance and to create an aesthetically appealing quality, and how retrofit systems can be integrated into existing homes without detracting from traditional architectural styles.

Order from: U.S. Department of Energy (DOE) Technical Information Center, P.O. Box 62, Oak Ridge, TN 37830 (DOE/OPA-0033 (8078))
Also: Wind

Rainbook: Resources for Appropriate Technology. *RAIN.* See **survivor's kit.**

Free 

Science Activities in Energy Series: Solar Energy. American Museum of Science and Energy. Oak Ridge, Tenn.: 1978. (13 p.).

Each sheet in the packet poses a leading question about some property of the sun's energy; these are answered by performing the accompanying experiments. The experiments are short, easy-to-do activities using very common materials, and instructions are clear enough for students (grades 4-6) to follow on their own. The format encourages creativity and variation.

Order from: U.S. Department of Energy (DOE) Technical Information Center, P.O. Box 62, Oak Ridge, TN 37830 (EDM-8379)

Soft-Tech. Baldwin, J.; Brand, Stewart, eds. Sausalito, Calif.: *The Co-Evolution Quarterly;* 1978. (175 p.) $5.00.

The articles cover myriad appropriate technology topics including inventions, solar, wind, bicycling, biofuels and underground architecture, with product information and annotations of books interspersed throughout. Contributors include Steve Baer, J. Baldwin, and Malcolm Wells. Most articles are reprinted from *The Co-Evolution Quarterly;* layout is similar to that of *Rainbook: Resources For Appropriate Technology.* A comprehensive index makes it possible to retrieve specific information.

Order from: *Co-Evolution Quarterly,* Box 428, Sausalito, CA 94965
Also: Passive Solar; Wind

Solar Age Catalog: A Guide to Solar Energy Knowledge and Materials. Anderson, Bruce, ed. Port Jervis, N.Y.: 1977. (232 p.) $8.50.

The catalog uses a mixture of articles and information to provide a reference for products and services, technical know-how, practical ideas, and solutions. The articles, written by solar experts, cover proper building design, passive solar heat, greenhouses, solar components, and systems. The catalog also contains product and manufacturer listings, a chapter on sizing solar heating systems, comparative tables covering different types of solar components and systems, and a number of collector performance charts from different manufacturers.

Order from: Solar Vision, Inc., 200 E. Main St., Port Jervis, NY 12771
Also: Active Solar; Greenhouses; Passive Solar

Solar Compendium. Blossong, Ken, ed. Washington, D.C.: Citizens' Energy Project; 1978. (161 p.) $6.00.

This is one of the most comprehensive source books available on any facet of solar energy. There are lists (and more lists) of sources, individuals, manufacturers, agencies, and organizations. The lack of an index hampers efficient use of this compendium.

Order from: Citizens' Energy Project, 1110 6th St. NW, #300, Washington, DC 20001

Free

Solar Components. Kalwall Corp. Manchester, N.H.: 1979. (44 p.).

Solar Components is a catalog of components and products for constructing a solar collector and/or system. The catalog includes explanations of product use, construction tips, and special precautions. The catalog includes collector covers, absorber plates, controllers, circulation devices, storage systems, and insulation, as well as a short bibliography of educational materials.

Order from: Solar Components Division, Kalwall Corp., P.O. Box 237, Manchester, NH 03105.

Solar Concepts: A Background Text and Teacher's Notes. Gordam, Jonathan W. Falmouth, Maine: Maine Audubon Society; 1979. (127 p.—text, 135 p.—notes.) $6.50 each, $12 set.

These two volumes provide very good basic solar text and teachers' notes which highlight key points in the text, sources for additional reading, experiments, and exams for use in conjunction with the text. The text is designed for vocational education students, although it would be appropriate for junior high or high school students. The following topics are covered in both volumes: energy "lingo"—a complete glossary of energy terms; a discussion of renewable and non-renewable energy sources; the history of solar energy; the size of potential solar energy contributions for different solar applications; heat transfer, including heat gains and losses; passive solar; windows as solar collectors; thermal mass; solar greenhouses; and active solar systems.

Order from: Maine Audubon Society, 118 US Rt. 1, Falmouth, ME 04105
Also: Active Solar; Greenhouses; Passive Solar

Solar Energy Education Bibliography. Wagner, Beth. Washington, D.C.: Center for Renewable Resources: 1979. (39 p.) $2.50.

This bibliography presents its material in terms of appropriateness for certain grade levels (elementary, secondary, college). Materials for each level are divided into subject headings and are annotated briefly. Films, video cassettes, and slide shows are also briefly reviewed, as are sources of information on distributors for both printed and audiovisual materials.

Order from: Center for Renewable Resources, 1001 Connecticut Ave., Fifth Floor, Washington, DC 20036

Solar Energy Experiments for High School and College Students. Emmaus, Penn.: Rodale Press, Inc., 1977. (129 p.) $5.95.

This book includes a collection of 18 experiments and eight classroom activities, a glossary, measurement unit conversions, summary of R-factors, solar data, and a bibliography. The experiments are clearly written and examine various solar and material property measurements and quantifications.

Order from: Rodale Press, Inc., 33 E. Minor St., Emmaus, PA 18049

Solar Energy: Technology and Applications. Williams, J. Richard. Rev. ed. Ann Arbor, Mich.: Ann Arbor Science Publishers, Inc.; 1977. (184 p.) $9.95.

The author, an engineer, describes the solar solution to the problems of pollution and the ever-increasing shortage of nonrenewable fossil fuels. The book introduces the techniques, equipment, practicality, costs, and comparative cost of using solar energy for myriad commercial and domestic applications, including fuel production, power generation, and space heating and cooling systems. This textbook is written primarily for the technical person although its succinct treatment of scientific jargon and mathematics and use of charts, drawings, graphs, and tables enable the individual with no background in the field to comprehend the material. Appendices, references, a glossary of terms, and an index are included.

Order from: Ann Arbor Science Publishers, Inc., P.O. Box 1425, Ann Arbor, MI 48106

Solar Forced Air Heating System Plans. Domestic Technology Institute. Evergreen, Colo.: (n.d.). (Six 18" x 24" blueprints.) $7.50.

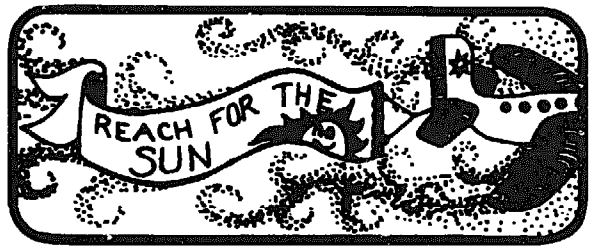
This low-cost solar heating system is constructed of materials available in any hardware or lumber store, and can be mounted on a sloped roof or vertically on a south wall of any structure to gain direct solar space heating. This system may be used with or without rock storage and may be ducted directly into a room or existing forced air heating system. The system is ideal for inexpensive heating of homes and large commercial and agricultural spaces. The collector will deliver from 700-1,000 BTU/ft². The collector system can be constructed and installed with average carpentry skills on a do-it-yourself or small business basis for about $2.00/ft². Complete construction drawings; photographs; procedures; electric circuit diagrams; and operation, maintenance and performance specifications are included.

Order from: Solstice Publications, Box 2043, Evergreen, CO 80439 (#77021)
Also: Active Solar

Free

Solar Here and Now. California Energy Commission. Sacramento, Calif.: 1978. (23 p.).

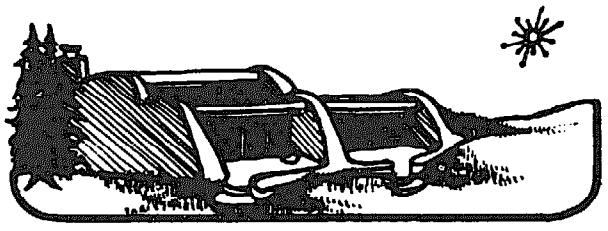
This booklet emphasizes the current widespread use of solar energy systems in California, with black and white photographs illustrating solar heated swimming pools and attractive solar homes in the state. The California Solar Tax Credit benefits are explained. A section entitled

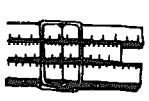


"Mechanics of Solar" provides a nontechnical, graphic description of active and passive solar systems directed to the consumer. A fascinating calendar traces solar history from the Greeks in the fifth century B.C., through 1895 when the first commercial solar water heater arrived in California, to 1995—the year the California Energy Commission projects 50% of California homes will have solar systems. California organizations are listed. A very short bibliography is subdivided into four sections: 1) current energy situation, 2) energy conservation, 3) solar energy application, and 4) residential solar use.

Order from: Publications Unit, California Energy Commission, 1111 Howe Ave., Sacramento, CA 95825
Also: Passive Solar

The Solar Home Book: Heating, Cooling and Designing with the Sun. Anderson, Bruce.
See **survivor's kit.**





Free

Solar Heating and Cooling Analysis Methods. Solar Energy Research Institute. Golden, Colo.: 1978. (10 p.).

This brochure briefly describes 15 common analysis methods that have been developed for various solar applications. The methods range from computer simulations to hand-held programmable calculator applications. Each analysis method is described and a contact source given, as well as the cost to use/buy, and other general data. The methods apply to active and passive systems. A more comprehensive comparison of analysis methods is planned.

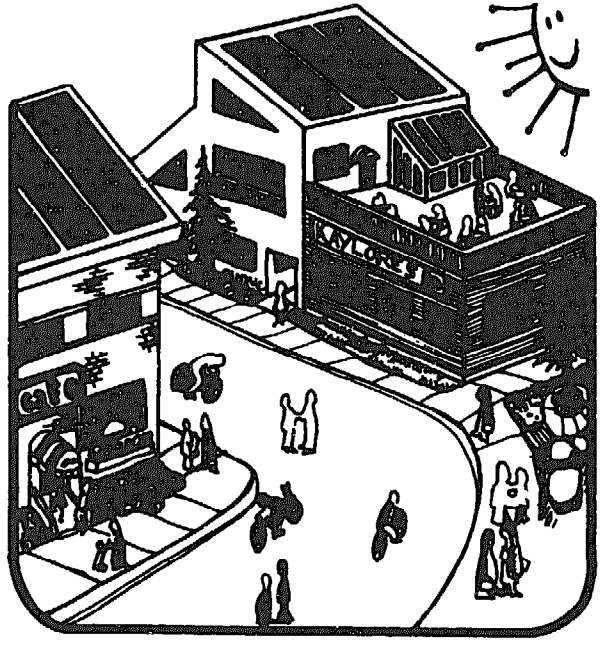
Order from: Solar Energy Research Institute, Document Distribution Service, 1536 Cole Blvd., Golden, CO 80401
Also: Active Solar; Passive Solar

Solar Industry Index: The Comprehensive Guide to Manufacturers and Service Organizations. Solar Energy Industries Association. Washington D.C.: 1977. (381 p.) $8.00.

The index lists solar product manufacturers and service companies by type of product or service, including solar water, space and pool heating products; passive systems; installation and maintenance contractors; consulting services; photovoltaic equipment and systems; wind energy systems and products; bioconversion; and solar thermal power generation. Each citation is well annotated. Alphabetical, geographic and categorical indices are all included.

Order from: Solar Energy Industries Association, 1001 Connecticut Ave. NW, Suite 632, Washington DC 20036

Solar Science Projects for a Cleaner Environment. Halacy, Daniel S., Jr. New York: Scholastic Book Services; 1974. (96 p.) $.95.



The book gives easy-to-understand explanations for seven solar projects: concentrating cooker, solar still, fresnel lens furnace, solar oven, flat plate water heater, solar motor, and sunpowered radio. Each project has a materials list, plans, and instructions for building and assembling; all can be made using commonly abailable, inexpensive materials. This practical introduction to solar energy will appeal to all ages, although youngsters will need help with the projects. Using these items will be as fun as building them. Readers are cautioned to read the plans carefully before beginning to build.

Order from: Scholastic Book Services, 906 Sylvan Ave., Englewood Cliffs, NJ 07632
Also: Active Solar; Cookers/Food Dryers

The Solar Self-Help Book. Canon, Austin. Albuquerque, N. Mex.: Southwest Research and Information Center; 1978. (40 p.) $3.50.

This book is handwritten with numerous excellent graphics and sketches on 11" x 17" paper. The book covers insulation, tools, solar energy, windows, shutters, thermal mass, venting, shading, Trombe walls, window boxes, greenhouses, hot boxes, water heaters, retrofits, materials, glazing, energy conservation, and rock heat storage. The book provides a lot of good information in an easy-to-read humorous manner.

Order from: Southwest Research and Information Center, P.O. Box 4524, Albuquerque, NM 87106
Also: Energy Conservation; Passive Solar

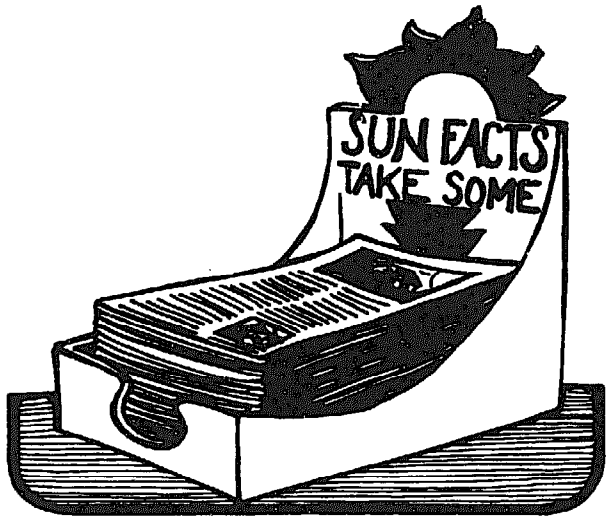
The Solar Survey. National Center for Appropriate Technology. Butte, Mont.: 1979 (21 p.)

The book includes descriptions of 33 low-cost, community-built (and do-it-yourself) solar collectors. The collectors described include a Trombe wall hybrid system built by the Colorado Rural Housing Development Corporation, a thermosiphon domestic water heater designed by Ecotope Group of Seattle, Washington, and others. The description of each collector includes a schematic diagram, a short description of the collector components, and a contact for ordering construction plans.

Order from: NCAT, P.O. Box 3838, Butte, MT 59701

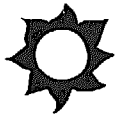
Sun-Earth: How to Use Solar and Climatic Energies Today. Crowther, Richard L. et al. Denver, Colo.: Crowther/Solar Group; 1977. (232 p.) $12.95.

This is a survey of architecture and its relationship to the natural environment, emphasizing the holistic building design process and its components of clientele, climate, energy conservation, function, light, site, structure, and economics. Over 20 actual homes and office buildings (most are in the metropolitan Denver area) are described in terms of their optimization of energy-saving features. Imaginative graphics, non-technical language, an "album-like" format, and concrete examples have been effectively combined to convey a lot of



information in a very readable style. An appendix of energy-related data, and an extensive bibliography with brief annotations, a glossary, and an index complete this book.

Order from: Crowther/Solar Group Architects, 310 Steele St., Denver, CO 80218
Also: Active Solar; Energy Conservation Passive Solar; Wind



Sunset Homeowner's Guide to Solar Heating. Antolini, Holly Lyman. See **survivor's kit.**

Sunspots: Collected Facts and Solar Fiction. 2nd ed. Baer, Steve. Albuquerque, N. Mex.: Zomeworks Corp.; 1977. (146 p.) $4.00.

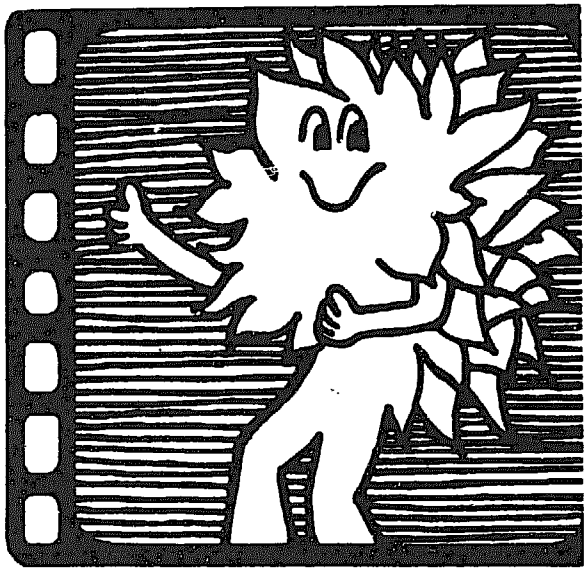
The author has provided a delightful collection of "stream of consciousness" essays which recount the experiences of his firm, Zomeworks Corp., in experimentation, design, and construction of solar energy systems during the past 10 years. He discusses such topics as bubble collectors, heat exchangers, flat plate collectors, air loop rock storage systems, and skylids. The breezy, folksy tone imparts much practical information while the personal examples and witty style combine to demystify solar energy concepts.

Order from: Zomeworks Corp., Box 712, Albuquerque, NM 87103

Tilly's Catch-A-Sunbeam Coloring Book. Spetgang, Tilly. Cherry Hill, N.J.: Solar Service Corp.; 1975. (29 p.) $1.50.

This coloring book teaches about solar heat and how it works. It is a humorous, appealing way for youngsters to learn about a topic that will have a great impact on their lives.

Order from: Solar Service Corp., P.O. Box 183, Cherry Hill, NJ 08002



films/slides

Full Circle. 1978.

20 minutes
78 slides with cassette
$85 for slides/purchase; $10 for cassette/purchase

This slide show presents the evolution of solar technology over the last 2500 years. It begins by showing how the ancient Greeks and Romans made use of the sun to heat their homes, records the thriving water heating industry in California and Florida at the turn of the century, and illustrates how the sun is being used today. Solar water heating, solar home heating, solar powered machines, and solar electric generation are covered.

Order from: Ken Butti, 511A Strand St., Santa Monica, CA 90405

The Great Adventure. Monumental Films for the U.S. Department of Energy (DOE) Office of Consumer Affairs; 1979.

28-1/2 minutes
16mm, color
$162.50/purchase; free loan

Eddie Albert narrates this film as it records successful solar projects around the country. It visits Ventura del Sol—a 254-unit California housing complex served by 22 hydronic solar energy systems, San Diego Federal Savings and its innovative solar financing policies, a barge anchored near Seattle which is being retrofitted to obtain all its power from renewable energy sources, a New Hampshire businessman who installs Darius vertical axis windmills, the Energy Task Force in New York to look at two projects which have brought solar to low-income people through urban homesteading, New Life Farm in Missouri which tries to demonstrate to its neighbors that low-cost technology such as hydronic rams and biomass digesters can increase their standard of living, an Oregon business that produces an easy to burn pellet from fibrous wastes, and the San Bernardino, California, Community Development Corp. which has turned an old laundramat into a solar domestic hot water factory producing systems to be retrofitted to the homes of low-income residents.

Order from: Rental: U.S. Department of Energy (DOE) Technical Information Center, Energy Film Library, P.O. Box 62, Oak Ridge, TN 37830; Purchase: National Audiovisual Center, GSA, Order Section FF, Washington, DC 20409
Also: Wind

Here Comes the Sun. National Science Foundation; 1974.

15 minutes
16mm, color
$87/purchase; free loan

In Massachusetts, Maryland, Virginia, and Minnesota, solar energy "goes to school" as students, teachers, and their communities find solar heating an important asset to help relieve the energy shortage and provide a laboratory for learning how the systems work. The film discusses usefulness of solar in different climate.

Order from: Rental: U.S. Department of Energy (DOE) Technical Information Center, Energy Film Library, P.O. Box 62, Oak Ridge, TN 37830 (#004161); Purchase: National Audiovisual Center, GSA, Order Section FF, Washington, DC 20409

Learning About Solar Energy. 1975.

10 minutes
16mm, color
$210/purchase

The film shows children building a small house. Then they harvest corn and cook it over a wood fire and then with a solar cooker to demonstrate both the indirect and direct use of the sun's energy. The film shows children learning how different colors absorb or reflect heat.

Order from: Paramount Communications, 5451 Marathon St., Hollywood, CA 90038

Look to the Sun. 1977.

12-1/2 minutes
16mm, color
$69.50/purchase; free loan

Stressing that typical fossil fuels are running out and we should turn to the sun, the film shows animated operation of a solar system. A variety of systems that have been installed and are working to their owners' satisfaction are also highlighted. Attempts are made to show that there are no real barriers to using solar by interviewing a banker, a solar engineer/researcher, an architect, a homebuilder, and a contractor.

Order from: Rental: U.S. Department of Energy (DOE) Technical Information Center, Energy Film Library, P.O. Box 62, Oak Ridge, TN 37830 (#010055); Purchase: National Audiovisual Center, GSA, Order Section FF, Washington, DC 20409

Putting Energy Alternatives to Work. 1977.

15 minutes
16mm, color
$185/purchase; $25/rental

In their own words, participants in a 10-day do-it-yourself workshop at the Ecological Awareness Center in Michigan tell why they attend and what they learn. People build passive solar air heaters, a Savonius rotor wind machine, a methane digester, and an active space heating system. The film is quite enjoyable, and uses folk music for background sound.

Order from: American Film House, 556 Ann St., Birmingham, MI 48009
Also: Active Solar; Passive Solar; Wind

Solar Energy: Narrated Slide Programs. Eaton, Colo.: Solar Energy Educational Service, Inc.; 1978.

Five sets, 20 slides each with tape narration
$15 per set/purchase; all five sets $67.50/purchase (mailing and handling $1.50)

- "North" Collector Workshop—presents the sequential process involved in building a low-cost, air-type solar heating panel named after its inventor, Bill North.
- Owner-Built Solar Systems—shows a diversity of solar energy applications ranging from a $17 solar cooker to an adobe home with an attached solar greenhouse.
- Manufactured Domestic Use Solar Systems—presents a mixture of commercially designed and manufactured active and passive solar systems for heating and cooling.
- Commercial, Multi-Family Residential and Large Scale Demonstration Solar Systems—presents several

commercial projects along with apartments and condominiums.
- Solar Greenhouses—presents examples of attached and detached solar greenhouses, both owner-built and commercial.

Order from: Solar Energy Educational Service, Inc., P.O. Box 307, Eaton, CO 80615
Also: Cookers/Food Dryers; Greenhouses; Passive Solar

Solar Heating. 1977.

28 minutes
16mm, color
$360/purchase; $14/rental

This is a no-nonsense film on the prospects of using solar for heating new houses, with good graphics and animation. It makes its points through interviews with several solar experts focusing on buildings in Wisconsin, and covers solar economics, employment opportunities and consumer tips.

Order from: Metabasis, Ltd., P.O. Box 5552, Madison, WI 53705

Sun Power for Farms. 1977.

12-1/2 minutes
16mm, color
$69.50/purchase; free loan

The film briefly covers a variety of solar agricultural applications around the country: a greenhouse that utilizes solar heated water at Rutgers University, a solar pond in Ohio, solar heat for livestock shelters in Mississippi, solar heat and hot water for a milking barn in Kansas, peanut drying in Georgia, and corn drying in Kansas. It focuses on the need to continue efforts to decrease costs for these and other agricultural applications.

Order from: Rental: U.S. Departmant of Energy (DOE) Technical Information Center, Energy Film Library, P.O. Box 62, Oak Kidge, TN 37830; Purchase: National Audiovisual Center, GSA, Order Section FF, Washington, DC 20409
Also: Cookers/Food Dryers

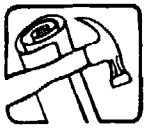
Switch on the Sun. Xerox Films; 1977.

15 minutes
16mm, color
$270/purchase; $17/rental; $180/videotape purchase

This is a general survey of various solar technologies in locations around the world. It describes solar as being in the future rather than nearterm.

Order from: Xerox Education Publications, 245 Long Hill Rd., Middletown, CT 06457

active solar



Building a Durable, Low Cost Solar Collector. Larsen, Paul F. Loveland, Colo.: 1979. (16 p.) $3.00.

This "how to" describes a simple solar collector which circulates and heats room air without storage or distribution networks. Each module is 32 square feet (4'x8'); material costs are estimated at $4.50 per square foot. This collector can be built and installed by a homeowner with basic skills. Construction and installation sections contain itemized lists of materials (with approximate prices) and tools, as well as step-by-step instructions. Five drawings depict "C" channels, collector assembly, air flow disruptor, and installation and dryer vent details.

Order from: Paul Larsen, 3024 North County Rd. #29, Loveland, CO 80537

Build-It Book of Solar Heating Projects. Foster, William F. Blue Ridge Summit, Pa.: TAB Books; 1977. (195 p.) $7.95.

The introductory material covers requisite building skills, a description of materials and component parts, and basic information on climatic factors. Four solar heating systems are examined: 1) thermosiphon hot water preheater, 2) hot water preheater with circulating pump and automatic drain-down,

3) closed-loop hot water preheater using a heat exchanger, and 4) auxiliary solar room heater. Each discussion includes a system description, design example, detailed materials list, and instructions for construction and installation. Numerous illustrations are used, in addition to an index and a short bibliography.

Order from: TAB Books, Blue Ridge Summit, PA 17214

Buying Solar. Federal Energy Administration. Washington, D.C.: U.S. Government Printing Office; 1976. (71 p.) $1.85.

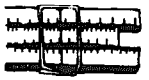
This booklet provides basic information and tips for consumers who are considering purchasing active, collector-based solar heating systems from commercial manufacturers. It provides answers to frequently asked questions, advice on solar systems as investments, and potential benefits of solar systems for domestic water, space, and pool heating. The purpose of the booklet is to prepare the potential consumer to make informed decisions.

Order from: Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402 (Report No. FEA/G-76/154)
Also: Domestic Hot Water

Homeowner's Guide to Solar Energy. Illinois Department of Business and Economic Development, Division of Energy. Springfield, Ill.: 1977. (56 p.).

This report describes active solar systems, evaluates the availability of solar energy in Illinois, and cites factors to consider in solar retrofits as well as new solar construction. Rural solar applications for corn drying and milk parlors are suggested. The listing of manufacturers and distributors of solar products concentrates on Illinois firms. Included is a list of seven organizations, mostly Federal, to contact for further information.

Order from: Illinois Department of Business and Development, Division of Energy, 222 South College, Springfield, IL 62701



An Introduction to the Applications of Solar Energy. McVeigh, J.C. New York: Pergamon Press; 1977. (208 p.) $4.95.

This state-of-the-art of solar energy was written by an engineer from Brighton Polytechnic in Sussex, England. It describes many applications which are illustrated with original photographs, diagrams or sketches, and includes construction details of several solar heaters and systems. A comprehensive overview of the topic in a scholarly, somewhat technical, manner is provided.

Order from: Pergamon Press, Inc., Maxwell House, Fairview Park, Elmsford, NY 10523
Also: Domestic Hot Water

A New Jerseyan's Consumer Guide to Solar Energy Systems, with an Economic Analysis. Shaw, Nadine; Bauer, Janine. Trenton, N.J.: The New Jersey Public Interest Research Group; 1978. (219 p.) $3.00 individuals, $5.00 institutions.

This handbook provides basic information for evaluating residential active solar space and water heating systems and components. Factors used to determine the cost-effectiveness of retrofitting solar energy systems are discussed using examples of two hypothetical New Jersey homes. Passive solar heating is mentioned only briefly. Appendices contain a list of solar architects and engineers from New Jersey, New York, and Pennsylvania, a list of solar manufacturers and distributors in New Jersey, and a model "right-to-sunlight" law. There are an extensive bibliography and index.

Order from: The New Jersey Public Interest Research Group, 32 W. Lafayette St., Trenton, NJ 08608
Also: Domestic Hot Water

SEM 79: Solar Engineering Master Catalog. Solar Energy Industries Association. Dallas, Tex.: Solar Engineering Publishers, Inc.; 1979. (184 p.) $15.

The directory includes a manufacturers index, product specifications and information, listings of solar manufacturers and sales organizations, solar installation and maintenance contractors, trademarks and product names, state energy organizations, and specialized products.

The *SEM 79* is well-organized with three indexes to provide easy access to information.

Order from: Solar Energy Industries Association, 1001 Connecticut Ave. NW, Suite 800, Washington, DC 20036

The Solar Decision Book: Your Guide to Making a Sound Investment. Montgomery, Richard H.; Budnick, Jim.
See **survivor's kit.**

Solar Dwelling Design Concepts. American Institute of Archietcts (AIA) Research Corp. See **survivor's kit.**

Solar Energy for Pacific Northwest Buildings. Reynolds, John S.; Eugene Ore.: University of Oregon; 1976. (70 p.) $7.00.

This spiral-boun 1 book presents general solar data, system sizing, and collector information, although the bulk of the information focuses on the Pacific Northwest. Two homes in the Northwest (Hoffman House in Surrey, British Columbia, and Mathew House in Coos Bay, Ore.) are described, including comparisons with Thomason House #1 in Washington, D.C., M.I.T. Solar House, Mass., and the Lof Residence in Englewood, Colo. Tables, charts, and graphs are numerous.

Order from: Center for Environmental Research, School of Architecture, University of Oregon, Eugene, OR 97403

Solar Energy Primer. Missouri Department of Natural Resources. Jefferson City, Mo.: (n.d.) (38 p.).

A concise overview covering solar space heating, water heating, and greenhouses, this booklet directs the reader to Federal agencies and nationwide associations and societies for further information. Glossary and bibliography are included.

Order from: Missouri Department of Natural Resources, P.O. Box 176, Jefferson City, MO 65102
Also: Domestic Hot Water; Greenhouses

Solar for Your Present Home. Barnaby, Charles S. et al. Sacramento, Calif.: California Energy Commission; 1978. (163 p.) $4.29.

This book helps the homeowner determine the feasibility of using solar energy for water, space, and swimming pool heating, and is one of the few publications concentrating solely on retrofitting (using solar applications for existing homes). It describes solar heating fundamentals and details of various components of both active and passive systems, giving pros and cons of each. There are no blueprints of actual systems, although special attention given to the San Francisco Bay area, with its moderate winters and ample sunshine, is applicable to other regions. Chapters are arranged to reflect the process of planning a solar project. The first chapters contain information needed to assess the potential for using a wide variety of solar retrofit applications; the last two chapters explain how to hire contractors, evaluate equipment, and locate information. There are three appendices: I) Performance Chart Methods and Sources of Error, II) Bay Area Climate, and III) Existing Bay Area Retrofits. Twelve blank worksheets are provided for calculations.

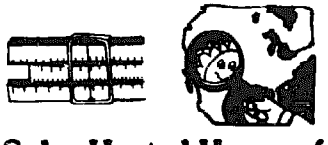
Order from: Publications Unit, California Energy Commission, 1111 Howe Ave., Sacramento, CA 95825
Also: Domestic Hot Water; Passive Solar

Solar Heat for Your Home. Lassagne, Arthur. Alamo, Calif.: The Gold Bug Press; 1976. (48 p.) $3.30.

This booklet is an overview of solar heating written in nontechnical language for the layperson. It describes systems and components, expectations for cost and performance, and directs the reader to sources of further information. There are no plans or instructions for construction, although these may be obtained through the resource section.

Order from: Art Lassagne, P.O. Box 588, Alamo, CA 94507

Solar Heated Buildings of North America: 120 Outstanding Examples. Shurcliff, William A. See **survivor's kit.**

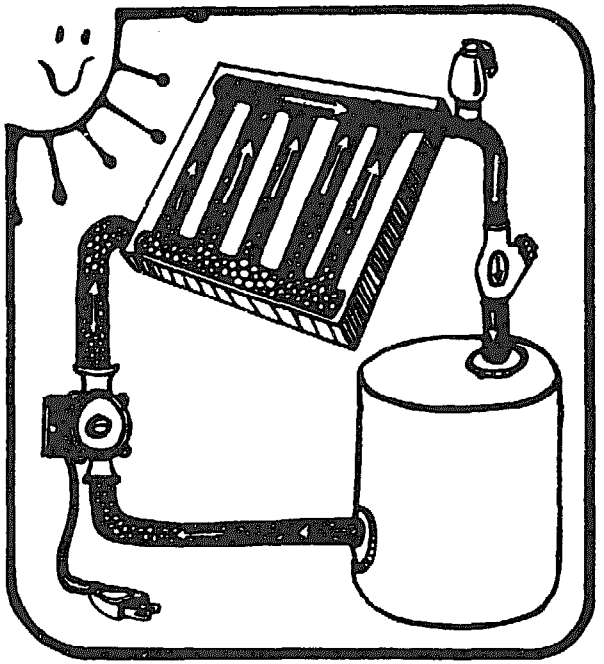


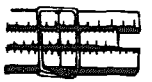
Solar Heated Houses for New England and Other North Temperate Climates. 5th ed. MASSDESIGN: Cambridge, Mass.: 1977. (68 p.) $7.50.

This report examines the applicability of various solar heating systems on two traditional single-family house designs in the Northeast (Cape Cod and Saltbox), and on a contemporary townhouse. Solar heating systems using water, air, and passive design

techniques were investigated; specifically excluded were 1) combined heating and cooling systems, 2) systems incorporating mechanical refrigeration cycles, 3) "Sky-therm" systems popular in the Southwest, 4) eutectic salt storage, and 5) heat pumps and air conditioning systems. Detailed descriptions of nine houses are provided; cost and performance summaries and complete computer printouts are included for seven of the houses. A computer program devised to simulate the thermal performance of over 200 house designs was based on solar heating systems, ocupancy and use characteristics, and construction details. Incredible amounts of data, although technical, are succinctly presented.

Order from: MASSDESIGN Architects and Planners, Inc., 138 Mt. Auburn St., Cambridge, MA 02138
Also: Passive Solar

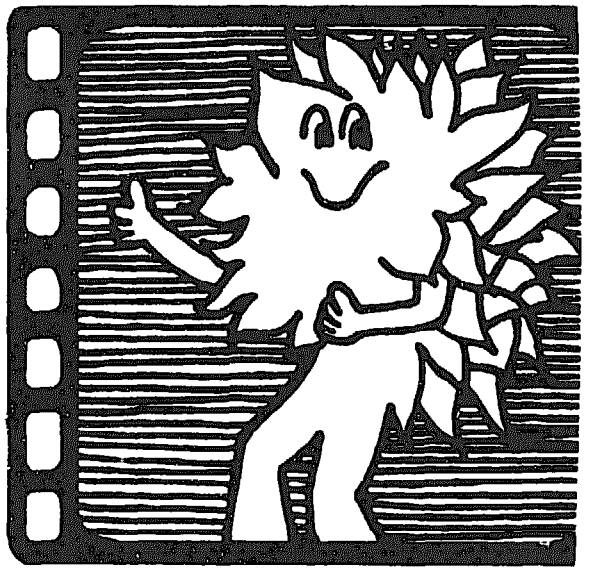




Solar Heating and Cooling Engineering, Practical Design, and Economics. Kreider, Jan F.; Kreith, Frank. New York: McGraw-Hill Book Co.; 1977. (342 p.) $24.75.

The authors have screened solar energy research studies from the fields of physics, chemistry, engineering, architecture, meteorology, and astronomy to produce a practical textbook on how to design solar energy systems for heating and cooling buildings. The five chapters contain information on solar and conventional energy concepts and requirements, fundamental principles of heat transfer and the nature of solar radiation, methods for solar energy collection and use, and detailed quantitative descriptions of practical systems for solar heating and cooling with an analysis of their economic feasibility. The information is scientific and technical by nature; it is presented in a scholarly, well-organized format. Extensive footnotes, tables, charts, diagrams, and mathematical equations and formulae supplement the textual material. Eight appendices contain tables of reference data.

Order from: McGraw-Hill Book Co., 1221 Avenue of the Americas, New York, NY 10036



films/slides

Gift From the Sun. (n.d.)

13 minutes
16mm, color
$210/purchase; $15/rental

This film illuminates the process the community of Summerset, New Jersey, went through in planning its Environmental Education Center. Operation of the building's solar heating and hot water system is very clearly explained.

Much of the film describes the ecological relationships among plant and animal life on earth, the environment, and the sun.

Order from: Unit 1 Film Producers, 540 W. 114th St., New York, NY 10025

Also: Organizing

The Solar Frontier. 1977.

25 minutes
16mm/color
$350/purchase;
$30/rental

The film emphasizes solar applications in the snowbelt. Shot mostly in Canada, the film discusses the operation of homes in snowy climates through the words of the people who designed and live in them. The operation of active solar systems is explained in detail.

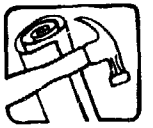
Order from: Bullfrog Films, Oley, PA 19547

alternative fuels

Auto Fuels of the 1980's. Frazier, Jack. Indian Mills, W. Va.: Solar Age Press; 1978. (71 p.) $3.95.

This study concentrates on methane and methanol as gasoline substitutes. One discussion describes existing methods for extracting methane from coal mines, lists its advantages over gasoline, notes how to obtain conversion kits, and speculates on future methane development. The section on methanol analyses its current state-of-the-art and explores the feasibility of producing it via coal, waste, and photosynthesis. The problems of Denver, Colo., are detailed to illustrate the ills of our gasoline society. Reprints of newspaper articles and illustrations support points made in the text. The appendix covers ownership of methane, facts and maps on methane, and methanol facts and technology. Hydrogen, electrical cars, and steam cars are not included.

Order from: Solar Age Press, P.O. Box 305, Dover, NH 07801
Also: Policy



Bio-Gas Plant. Singh, Ram Bux. Ajitmal, Etawak, India: Gobar Gas Research Station; 1975. (94 p.) $10.

The first section synthesizes the author's 15 years of work with bio-gas plants, explaining their design, function, operation, and economics. The second section contains drawings with specifications for 20 different types and sizes of bio-gas plants suitable for cold and temperate climatic areas.

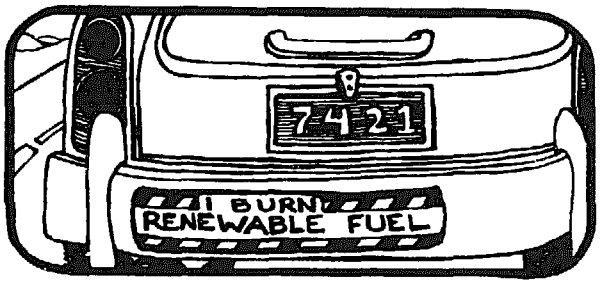
Order from: *Mother Earth News*, P.O. Box 70, Hendersonville, NC 28739

Free

Biogas Production from Animal Manure. Lapp, H.M.; Schulte, Dennis; Stevens, M.A. Winnipeg, Manitoba: Biomass Energy Institute; 1978. (20 p.).

This bulletin was published to acquaint farmers with energy production from farm animal manure. There is a discussion of anaerobic digestion principles. Properties, cleaning, handling, storage, and utilization are briefly described. It includes a design for a farm-scale anaerobic digester. A selected bibliography of 13 technical references concludes this publication.

Order from: Biomass Energy Institute, Inc., 304-870 Cambridge St., Winnipeg, Manitoba, Canada



Design and First Year Operation of a 50,000 Gallon Anaerobic Digester at the State Honor Dairy Farm, Monroe, Washington. Coppinger, Elizabeth; Baylon, David; Smith, Ken. Seattle, Wash.: Ecotope Group; 1978. (87 p.). $5.75.

The report summarizes the results of a farm demonstration of anaerobic digestion of animal manure. The report analyses one year's experience with the Monroe digester facility in relation to initial engineering design decisions. The report describes the digester's design, system component evaluation, biological systems, energy

production and net energy, and economics of anaerobic digestion. It includes a bibliography and an operator's guide for an anaerobic digester.

Order from: Ecotope Group, 2332 E. Madison, Seattle, WA 98112

Methanol and Other Ways Around the Gas Pump. Lincoln, John Ware. Charlotte, Vt.: Garden Way Publishing Co.; 1976. (134 p.) $4.95.

The author has amassed support data from worldwide historical examples and current experimental projects to convince the average U.S. consumer that resources exist to provide viable alternatives to gasoline and the current "drinking" automobile. He discusses the advantages and disadvantages of possible extenders of the gasoline supply: methanol, ethanol, hydrofuels, and various blends. He also explores gasogene, steam automobiles, the Stirling cycle engines, gas turbine engines, electric cars, and hydroengines. Considerable emphasis is placed on methanol and barriers raised by government and industry to its usage. There is a brief glossary and bibliography. This work provides an introduction; other sources will be necessary for more technical information.

Order from: Garden Way Publishing Co., Charlotte, VT 05445

Practical Building of Methane Power Plants for Rural Energy Independence. Fry, L. John. Santa Barbara, Calif.: 1974. (96 p.) $12.

The author has recorded his personal experiences and pioneering efforts in developing a methane digester. There are discussions of raw materials, the biological principles of digestion, and suggested usages for gas and sludge. Descriptions of various displacement-type, continuously operated digesters include information on design, operation, and economics. There are instructions for building a vertical drum digester. A question and answer section anticipates reader concerns on raw materials, gas usage, digester design, loading rate, scum removal, bio-succession, and digester operation. Numerous photographs and diagrams supplement the text. A bibliography cites 73 resources.

Order from: John Fry, 1223 N. Nopal St., Santa Barbara, CA 93103

cookers/food dryers

A Cookbook for Building a Solar Food Dryer. Valdez, Arnold; Valdez, Maria. San Luis, Colo.: Future Power Project; 1977. (15 p.) $3.50.

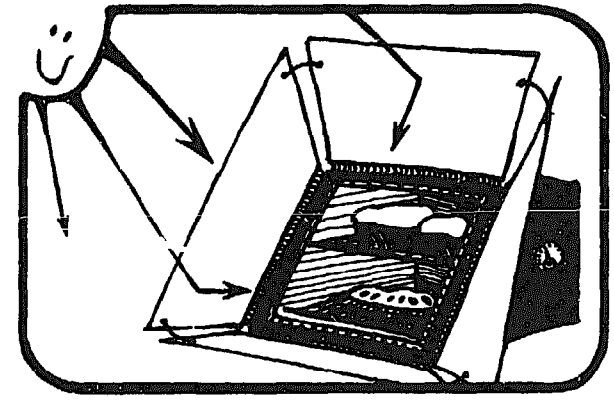
By following clearly detailed diagrams and easy step-by-step instructions in this booklet, the reader can build a freestanding solar food dryer for about $50. Lists of basic carpentry tools and materials are included. There are also photographs of an attached multi-purpose solar collector which can serve the combined functions of drying, space heating, and spring cold frame for plant starters. The authors have drawn on personal experience to offer practical tips and advice on selecting, drying, and storing dehydrated foodstuffs; a table presents basic steps for solar drying of grapes, grains, carrots, herbs, mushrooms, vegetables, fruits, and greens. The bibliography contains references for dehydrated food cookbooks.

Order from: Arnie and Maria Valdez, People's Alternative Energy Services, Route 1, Box 3A, San Luis, CO 81152

How to Build a Solar Crop Dryer. New Mexico Solar Energy Association (NMSEA). Santa Fe, N. Mex.: (n.d.). (10 p.) $1.50.

Plans, instructions and a list of the materials needed to build a solar food dryer, based on a design by Peter Van Dresser, are all included in this booklet. The dryer operates on natural convection and has 36 square feet of tray space. The food dryer costs approximately $60 to build.

Order from: NMSEA, P.O. Box 2004, Santa Fe, NM 87501



The Solar Cookery Book: Everything Under The Sun. Halacy, Beth; Halacy, Dan. Culver City, Calif.: Peace Press; 1978. (105 p.) $6.95.

This unique book shows how even an amateur can harness the sun's energy to prepare food. The initial chapters contain basic information on solar energy and easy-to-follow instructions (complete with diagrams, pictures, and supply lists) for constructing solar ovens and reflector hot plates from easily acquired and inexpensive materials. The authors dispel commonly held notions that you can only utilize solar cooking during hot weather or in the sun-belt region, or that solar cooking is expensive. The book is replete with practical tips and hints the Halacy family has gleaned from 20 years experience with solar cooking. There are approximately 100 recipes for breads, vegetables, legumes and grains, casseroles, poultry and fish, meat, and desserts which have been tried and tested on solar cookers. This book serves a wide range of audiences from students or scouts in need of science projects to campers, backyard barbecuers, and conservation and ecology enthusiasts.

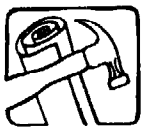
Order from: Peace Press, 3828 Willat Ave., Culver City, CA 90230

The Solar Food Dryer Book. Andrassy, Stella. Dobbs Ferry, N.Y.: Earth Books/Morgan & Morgan; 1978. (127 p.) $3.95.

The Sunhood, a 19" x 25" solar food dryer which was invented and field tested throughout the United States by the author, was specifically designed for drying vegetables, fruits, berries, herbs, and mushrooms. The portability of the Sunhood makes it useful in urban areas as well as rural communities. The text includes lists of needed materials and instructions for building the four parts (frame with an open bottom, drip channel, plastic cover, and drying trays), as well as drawings and directions for assembling them. Throughout the text are tips for selecting, drying, packaging, and storing particular foodstuffs as well as recipes for using dehydrated foods. The bibliography lists books dealing with food drying.

Order from: Morgan & Morgan, Inc., 145 Palisades St., Dobbs Ferry, NY 10522

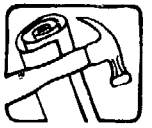
domestic hot water



Breadbox Water Heater Plans. Rev. ed. Zomeworks. Albuquerque, N. Mex.: 1977. (1 Sheet, 18" x 24") $2.50.

This booklet explains how to convert standard water heaters into breadbox collectors for $250 to $400 (for 40-60 gallons). Materials lists and construction details are given. The principles of operation are also discussed. The construction process is quite detailed, and presented in a manner which requires careful reading to avoid confusion. The basic discussion of how and why the system works so well is a real bonus often neglected in other blueprint and plan documents.

Order from: Zomeworks, P.O. Box 712, Albuquerque, NM 87103



Building A Solar Water Heater: A Do-It-Yourself Manual with Blueprints. Kawanabe, Akira; Valdez, Arnie. San Luis, Colo.: Future Power Project; 1977. (38 p.) $7.50.

Following a review of the basic mechanics, design, and operation of several solar water heating systems, a fold-out blueprint and step-by-step illustrated instructional guide detail construction of a low-cost solar hot water system (a 32-square-foot, 4' x 8' collector and storage system with thermosiphon circulation). Materials list and a list of hand tools needed to build the system are included; the layout is designed for workbook use. A reference attachment offers a buyer's guide to solar hardware and blueprints. A bibliography of sources dealing with in-depth discussions of the other systems presented is given.

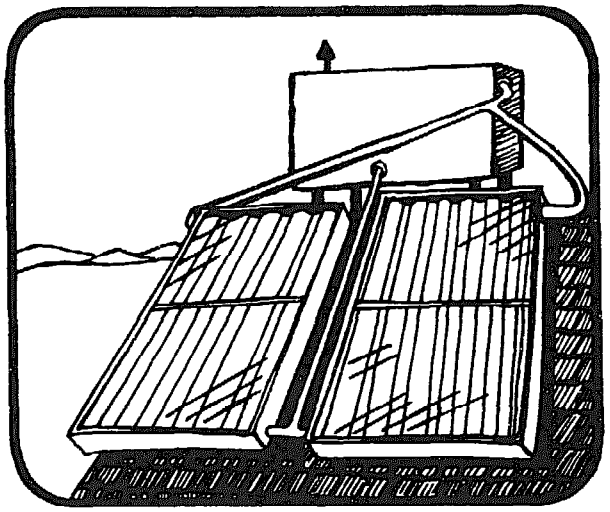
Order from: Arnie and Maria Valdez, People's Alternative Energy Services, Route 1, Box 3A, San Luis, CO 81152
Also: Organizing

Build Your Own Solar Water Heater. Campbell, Stu; Taff, Douglas. Charlotte, Vt.: Garden Way Publishing Co; 1978. (108 p.) $8.95.

A nuts-and-bolts handbook for planning, building, and installing domestic solar water heating systems. Describes several types of systems and components (from simple to complex), covering the pros and cons of each. This book stresses practicality; the

authors have either personally built or used all components mentioned. Useful tables of sunshine for selected locations and collector requirements per person for selected U.S. and Canadian cities can be found in the introductory chapter. Over 100 illustrations, an informal conversational tone, and the question and answer format put this practical application of solar energy within the grasp of the layperson. An appendix gives an extensive directory of manufacturers of solar products.

Order from: Garden Way Publishing Co., Charlotte, VT 05445



Build Your Own Solar Water Heater. Florida Conservation Foundation, Inc. Winter Park, Fla.: 1976. (25 p.) $2.50.

Includes information on the three types of systems (thermosiphon, pumped, and closed-loop) and their components. There are plans, a materials list, and illustrated step-by-step directions for building and installing a 4 x 10′ flat plate collector. The booklet concludes with practical information on storage tanks, boosters, circulation systems, controls, and pumps. Forty-three figures accompany the written text.

Order from: Environmental Information Center, Florida Conservation Foundation, Inc., 935 Orange Ave., Winter Park, FL 32789

Hot Water. Morgan, Scott et al. Santa Barbara, Calif: 1975. (31 p.) $2.50.

s excellent little booklet is packed with concise information on flat plate water heating and picking up extra heat from coal- and woodburning flues. Materials lists and construction and plumbing directions (which assume the reader's technical ability) are included for three types of collector plates, an absorber box, both pressurized and non-pressurized storage tanks, and copper heat exchange coils for insertion in coal- and woodburning flues. It also has a good discussion of pressure in plumbing systems and appropriate ways to deal with it.

Order from: NMSEA, P.O. Box 2004, Santa Fe, NM 87501
Also: Woodburning

How to Build a Passive Solar Water Heater. McCracken, Horace. Boulevard, Calif.: Mountain Press; 1978. (23 p.) $4.50.

These plans are similar to the Breadbox, with some differences in box design and insulation which affect both aesthetics and performance. The author suggests the plans not be used in areas where the temperature falls below 20°F. The design lends itself easily to modular construction. The plans include a materials list, plywood cutting diagrams, and specifications, as well as a plan for connecting into the existing plumbing system. Although the instructions for building are not step-by-step, they show a conscientious approach to design, nal workmanship, and aesthetics. Some ther ting and economic performance data on exi installations are included.

Order from: Horace McCracken, ountain CA 92005 Press, P.O. Box 996, Boulevard.

Free **Solar Hot Wa r and Your Home.** Natio al Solar Heating nformation Center and Cooling , D.C.: U.S. Govern- (NSHCIC). Washingt 1978. (20 p.). ment Printing Office

This booklet cov s the basic facts about solar hot water eating, pointing out ation the prospective buyer technical infor Several diagrams and should know plify the descriptions of these drawings s solar hot water systems: 1) aspects o nd operation; 2) solar energy function n (collector orientation, tilt, and utilizat g); 3) active systems; and 4) shadi onents (flat plate collectors, collector com

mounting, and heat exchangers). A section on "Consumer Considerations" provides a checklist of items to consider in purchasing a solar hot water system and discusses some pitfalls to avoid. References of consumer guides, manufacturers' directories, pamphlets, and articles are included. A glossary of solar heating terms and a comprehensive, nationwide list of manufacturers of solar hot water equipment are useful adjuncts for the prospective consumer.

Order from: NSHCIC, P.O. Box 1607, Rockville, MD 20850

Solar Hot Water Heater. 2nd ed. Oregon State Community Services Program. Salem, Ore.: 1978. (81 p.).

This excellent booklet resulted from efforts to develop an easily constructed, low-cost solar hot water heater for low-income households. It describes a thermosiphon system which operates without pumps and controls and provides one-fourth of the hot water needs for a family of four. The materials cost is approximately $300. The introduction discusses the theory of energy and solar hot water heating as well as relevant Oregon codes and building permits. Chapters are arranged by components (collector panels, heat exchangers, boxes, and support structures), and installation, and contain tool lists and detailed steps for construction. Approximately 40 figures accompany the text to assist in construction and installation. There is a short bibliography of general solar resources. Appendix A discusses alternate systems and Appendix B presents a master materials list.

Order from: Oregon State Community Services Program, 772 Commercial St. SE, Salem, OR 97310

Solar Water Heater Booklet for Guam. Guam Energy Office, Agana, Guam: 1978. (17 p.).

Material from this booklet was condensed from the *Solar Water Heater Handbook for Guam* to help consumers understand the solar water heating concept and its financial benefits. It describes the operation of solar water heaters and cost comparisons based on Guam's economy. There is a list of suppliers on Guam with a description of their equipment. A revision of this booklet is planned for September 1979.

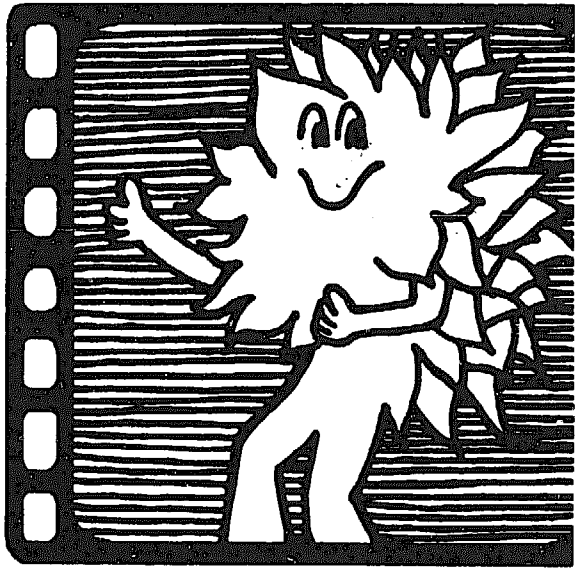
Order from: Guam Energy Office, Room 402, Chase Bank Building, Agana, Guam 96910

The Solar Water Heater Workshop Manual. Eklund, Ken et al. See **survivor's kit.**

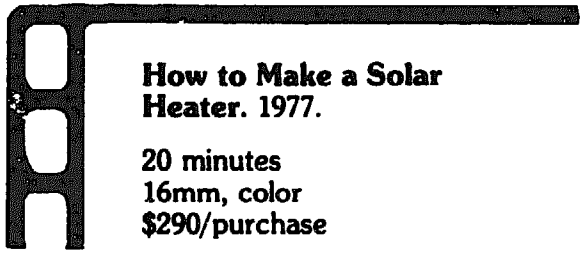
Solar Water Heating for the Handyman. Paige, Steven. Barrington, N.J.: Edmund Scientific Co.; 1974. (32 p.) $4.00.

This nontechnical book describes the components and operation of solar water heaters for the interested homeowner, emphasizing thermosiphon and storage/collector heaters under pressure. A discussion of the effects of climatic factors such as the sun's angle, freezing temperatures, shadows, and prevailing winds on solar water heating is included. Three illustrations provide rough sketches of sample heater plans: 1) thermosiphon heater at house pressure, 2) apartment-sized pump-type heater, and 3) low-grade summer auxiliary heater. Three maps and charts provide comprehensive climatic data for the entire United States.

Order from: Edmund Scientific Co., 150 Edscorp Bldg., Barrington, NJ 08007



films/slides



How to Make a Solar Heater. 1977.

20 minutes
16mm, color
$290/purchase

Follows the learning experiences of a young student who builds a solar heating unit for his workroom. After studying the subject and viewing examples of a variety of solar technologies at the Jet Propulsion Laboratory, the boy makes a list of materials and then constructs a simple flat plate collector system. Once completed, the device is tested and, to his delight, operates very efficiently. Principles of solar energy are well illustrated through easy-to-understand narration and graphics, although, if built, the unit may not hold up for long periods of time.

Order from: Handel Film Corp., 8730 Sunset Blvd., West Hollywood, CA 90069

Installing Solar—Some Early Lessons. 1977.

30 minutes
16mm, color
Free loan

This is essentially a film to help installers learn more about proper installation and possible problems of domestic hot water systems. Some valuable consumer tips for selecting systems are given.

Order from: National Solar Heating and Cooling Information Center (NSHCIC), P.O. Box 1607, Rockville, MD 20850

Solar Domestic Hot Water for Your Home. 1978.

16 minutes
16mm, color
Free loan

Goes through the step-by-step construction of a solar domestic hot water unit for a family of five. Explains system operation including back-up.

Order from: National Solar Heating and Cooling Information Center (NSHCIC), P.O. Box 1607, Rockville, MD 20850

SUN ON TAP. 1978.

15 minutes
16mm, color
$70 (approx.)/purchase; free loan

This is a very good film which covers solar domestic water heaters; information specific to California is presented. The film starts on an historical note, pointing out the number of systems installed in California prior to the 1920s. Thermosiphon and pumped systems, and advantages and disadvantages of each, are described. Installation considerations, orientation, retrofits, conservation measures, the California certification and testing program, and tax credits are covered. There is some nice footage covering solar water heaters in urban and suburban settings.

Order from: Office of Communication, California Energy Commission, 1111 Howe Ave., Sacramento, CA 95825

greenhouses

An Attached Solar Greenhouse: Un Invernadero Conectado de Energia Solar. Yanda, William F.; Yanda, Susan. Sante Fe, N. Mex.: The Lightning Tree Press; 1976. (18 p.) $2.00.

This bilingual pamphlet gives step-by-step instructions for the design, construction, and operation of a solar greenhouse attached to the home. The sample was 10' x 16' and was owner-built for less than $2.50 per square foot; it was designed for the dry, high-altitude, high- sunshine Rocky Mountain region. Most of the information has been extracted from *The Food and Heat Producing Solar Greenhouse* by Rick Fisher and Bill Yanda. The bilingual format is the unique aspect of this pamphlet; each page has two columns, English on the left and the Spanish translation on the right. A reference section lists supplemental reading, suppliers, and sources of information.

Order from: The Lightning Tree Press, P.O. Box 1837, Santa Fe, NM 87501

The Complete Greenhouse Book: Building and Using Greenhouses from Cold Frames to Solar Structures. Clegg, Peter; Watkins, Derry. Charlotte, Vt.: Garden Way Publishing Co.; 1978. (380 p.) $8.95.

Husband and wife have combined profession and avocation to create this latest (and excellent!) compendium on greenhouses: he is an architect who specializes in solar applications and she is an avid gardener. Some of the topics include designing and constructing a greenhouse; evaluating the many possible designs, materials, and equipment; incorporating a greenhouse into the home to grow plants year-round and to provide supplementary heat; and utilizing the sun's energy. It covers every aspect of greenhouses and gardening indoors— solar greenhouses and organic gardening are emphasized. The appendix utilizes tables, graphs, mathematic formulae, and maps to provide data on heat gains and losses. This is a practical, well-written, well-designed book. Chapters conclude with an annotated reference list and a list of manufacturers and suppliers, if applicable. Green (excellent color choice!) is used in both text and illustrations to highlight material.

Order from: Garden Way Publishing Co., Charlotte, VT 05445

The Food and Heat Producing Solar Greenhouse: Design, Construction, and Operation. Fischer, Rick; Yanda, Bill. See **survivor's kit.**

Noti Solar Greenhouse; Performance and Analysis. Hoff, Eric; Jenkins, David; Van Duyn, Jim. Eugene, Ore.: University of Oregon, School of Architecture and Allied Arts, Center for Environmental Research; 1977. (32 p.) $2.00.

This report describes a privately owned passive solar greenhouse in Noti, Ore. It was designed and built by three students of architecture at the University of Oregon to demonstrate the viability of passive solar heating in the Pacific Northwest. Specifications, drawings and photographs describe the greenhouse. Performance criteria, monitoring, and analysis are included. A recommended crop schedule and a profile of microclimates (zones within the greenhouse itself) complete the report. The Noti greenhouse maintained an inside air temperature range from 50° to 70° F during its first winter (1976-77) with the sun as its only heating source.

Order from: University of Oregon, Center for Environmental Research, School of Architecture, Eugene, OR 97403

The Passive Solar Greenhouse and Organic Hydroponics: A Primer. Kasprzak, Rick. Flagstaff, Ariz.: R.L.D. Publications; 1977. (79 p.) $5.80.

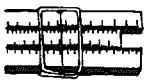
The book has two chapters. The first chapter covers the author's experience in designing and building a passive solar greenhouse attached to a residence at an altitude of 7000 feet above sea level in the northern Arizona mountains. The chapter includes recommendations on greenhouse coverings, ventilation, insulation, duration and intensity of light, temperature, and construction. The second chapter covers hydroponics. Topics briefly covered include commercial vs. organic methods of greenhouse hydroponics, hydroponic solutions, guides to nutrient solutions, and economics. The author describes the results of an experiment comparing the growth of fruits and vegetables grown in four different hydroponic solutions. An appendix covers lighting, alternative electrical systems, and water.

Order from: R.L.D. Publications, P.O. Box 1443, Flagstaff, AZ 86002

The Portable Solar Greenhouse. Solar Sustenance Team. Santa Fe, N. Mex.: (6 p.) $10.

Plans for a small portable solar greenhouse which can be built in one day and can be used at fairs, exhibits, and schools. The plans include a materials list and step-by-step construction directions.

Order from: Solar Sustenance Team, Route 1, Box 107AA, Santa Fe, NM 87501

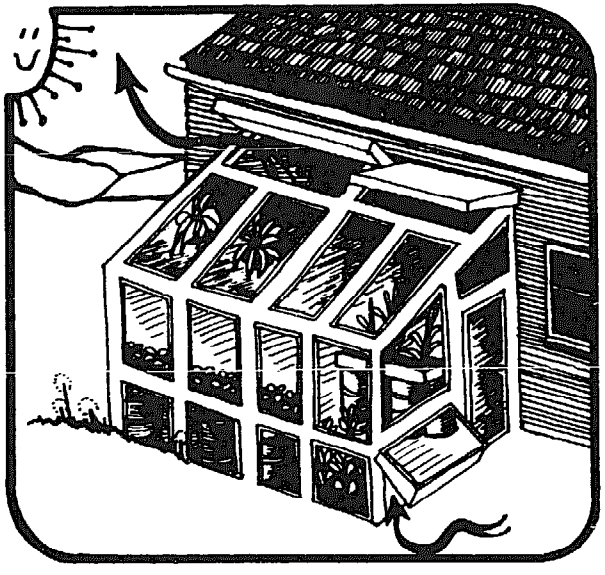


Proceedings of the Conference on Energy-Conserving, Solar Heated Greenhouses. Hayes, John; Gillett, Drew, eds. Marlboro, Vt.: Marlboro College; 1979. (282 p.) $9.00.

The proceedings of this very successful conference offer a series of state-of-the-art technical papers on solar greenhouses. Most of the "name" researchers and authors were represented at the conference. The book provides excellent background

material as well as actual case histories of research in the field.

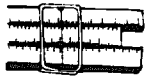
Order from: New England Solar Energy Association, P.O. Box 541, 22 High St., Brattleboro, VT 05301



Solar Energy Conservation for Illinois Greenhouses. Miller, Stephen K.; Pogany, David Z. Springfield, Va.: National Technical Information Service (NTIS); 1978. (32 p.) $4.50.

This report, prepared by Amcon, Inc., for the Illinois Division of Energy, explores ways to reduce fuel costs and energy consumption in Illinois' commercial greenhouse industry. It describes improvements for existing greenhouses which can be made immediately by utilizing common materials and current technology: 1) styrofoam insulation to cut heat loss and 2) solar collectors and thermal storage systems to augment conventional energy sources. This study outlines expected performance and assesses costs and investment recovery for the improvements described. Seven drawings and seven tables supplement the textual material.

Order from: NTIS, 5285 Port Royal Rd., Springfield, VA 22161 (Report # PB 281425/9SL)
Also: Energy Conservation



The Solar Greenhouse Book. McCullagh, James C., ed. Emmaus, Pa.: Rodale Press, Inc.; 1978. (328 p.) $8.95.

This book provides extensive treatment of all aspects of solar greenhouses, with emphasis on low-cost, low-energy structures. Part I covers greenhouse design, including climate control, heat storage, glazing, and minimum design criteria. A second section on construction presents case studies of structures around the country. Covered are the freestanding, attached, and pit greenhouses, and soiar cold frames. Part III, "Managing the Solar Greenhouse," concentrates on vegetable production with particular emphasis on CO^2, humidity, and composting methods. Black and white pictures, drawings, maps, and charts supplement textual data. There are eight technical appendices: I) Automatic Vent Openers, II) Sources for Conductivity and pH Meters, III) Estimating Heat Loss, IV) How Much Energy Gets into Your Greenhouses, V) Sun Charts, VI) Assessment of Commercial Glazing Materials, VII) Metric Conversion Chart, and VIII) Selected Greenhouse Vegetable Varieties. There are a bibliography and an index.

Order from: Rodale Press, Inc., 33 E. Minor St., Emmaus, PA 18049

A Solar Greenhouse Guide for the Northwest. Magee, Tim; Oberton, Carol; Stewart, Liz. Seattle, Wash.: Ecotope Group; 1978. (92 p.) $5.00.

This very useful guide was written by an organization with years of experience leading groups in the construction of greenhouses and solar water heaters. It is very practical and well-illustrated with graphics and plans to assist readers in carrying out their own greenhouse projects. Chapters cover general workings of greenhouses, cost payback, heat loss and site selection, design and construction, and food production. A concise bibliography, lists of tools, working drawings, and insolation data for several Northwest cities complete the book. This book is clearly written and carefully points out how to avoid mistakes in the building process.

Order from: Ecotope Group, 2332 E. Madison, Seattle, WA 98112
Also: Organizing

Solar Reliant Greenhouse Plans. Domestic Technology Institute. Evergreen, Colo.: Soltice Publications; (n.d.). (Five 18" x 24" blueprints) $7.50.

These plans are for a 12' x 16' greenhouse designed to meet existing building codes and to provide nutritionally superior, inexpensive, year-round vegetables and plants

for a family of five. The greenhouse will operate in most areas of the country without auxiliary heating and cooling systems and can be constructed for approximately $1,000. Complete construction drawings, photographs, a materials list, and operation, maintenance, and planting instructions are included.

Order from: Solstice Publications, P.O. Box 2043, Evergreen, CO 80439

Solar Room. Taff, Doug. Charlotte, Vt.: Garden Way Publishing Co.; 1976. (15 p.) $9.95.

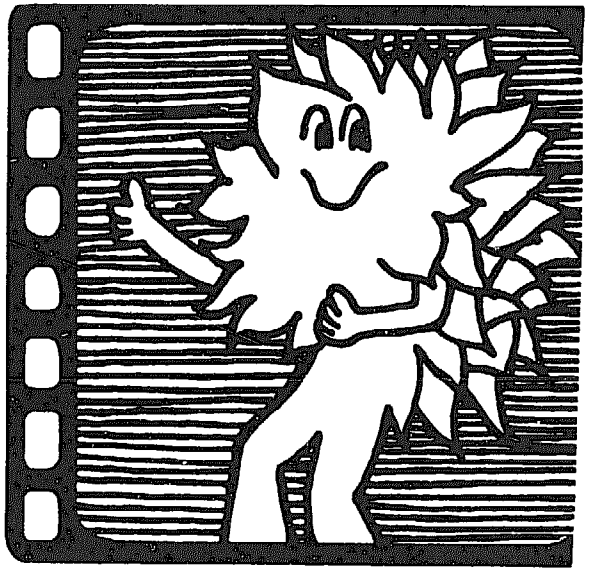
The booklet contains plans and a materials list to construct a solar room which can be attached to an existing structure or free-standing. The plans include a description of how the solar room works, consideration of size, and step-by-step construction details which cover the concrete slab, wall framing, roof framing, sheathing and roofing, south windows, controls and wiring, and finishing. It is estimated that the heat generated from the room will provide from 8 percent to 40 percent savings in average fuel bills.

Order from: Garden Way Publishing Co., Charlotte, VT 05445

The Survival Greenhouse: An Eco-System Approach to Home Food Production. DeKorne, James B. Culver City, Calif.: Peace Press; 1975. (165 p.) $7.50.

This book chronicles one family's personal experience with a unique concept in self-sufficient living and home food production. It recounts two years of the DeKorne family's attempt to support itself on a one-acre homestead in New Mexico's semiarid northern mountains without violating ecological principles. The author describes the construction of a pit greenhouse, hydroponics (gardening without soil), and an aquaculture ("fish farming") project. Pertinent data is presented in a manner easily comprehensible for the layperson. He states that the book is "no blueprint for construction of 100 percent efficient free lunch machines," but a description of an experiment in progress. Therefore, he shares the failures as well as the successes. The reference section contains a chapter-by-chapter bibliography as well as a recommended reading list. There are two appendices: I) Do-It-Yourself Wind Generators (with footnotes and an annotated bibliography) and II) The Attached Greenhouse.

Order from: The Walden Foundation, P.O. Box 5, El Rito, NM 87530
Also: Wind



films/slides

Build Your Own Greenhouse—Solar Style. 1978.

21 minutes
16mm, color
$350/purchase; $55/ rental

On a snowy weekend, a group of volunteers wanting to learn an innovative approach to obtaining free heat from the sun and fresh food for the table, built an attached solar greenhouse on the office of the New Mexico Solar Energy Association. *Build Your Own Greenhouse-Solar Style* documents this workshop and the important elements of greenhouse design, performance, and aesthetics through interviews with workshop leader Bill

Yanda and owners of other greenhouses. The film follows the volunteers as they learn new construction skills and avoid mishaps in a fun-filled, barnraising fashion. A workshop manual accompanies the film.

Order from: Danamar Film Productions, 275 Kilby, Los Alamos, NM 87544
Also: Organizing

Solar Greenhouse Slide Series. (n.d.).

Seven sets, 20 slides each with cassette narration
$15 set/purchase; all seven sets $90/purchase

- Attached Solar Greenhouses—provides a general introduction to attached solar greenhouses in various climates.
- Design—includes schematics which show basic solar principles and their application to solar greenhouse design.
- Construction—provides a detailed sequence of the actual building of solar greenhouses. It highlights most critical aspects of the construction phase.
- Horticulture—provides seasonal information on planting, maintaining, and harvesting of food crops in the greenhouse.
- Insects and Other Problems—provides instructions on how to deal with common greenhouse pests, natural predators and organic controls.
- Community Solar Greenhouses—provides examples from all over the country of this concept in year-round food production.
- Solar Greenhomes—covers the total integration of greenhouses as primary heating systems in new homes.

Order from: The Solar Greenhouse Slide Series, Solar Sustenance Team, Route 1, Box 107AA, Santa Fe, NM 87501

Solar Greenhouse Slide Show. Ecotope Group; 1978.

56 slides with cassette and script
$60 (approx.)/purchase

The slide show covers the principles of solar greenhouses, including how to maximize solar gain, prevent heat loss, and provide for heat storage. A freestanding passive greenhouse, a commercial parabolic aquaculture greenhouse, and a passive greenhouse attached to a residence are described. Examples of several other greenhouses are cited. The slides show the steps involved in building a passive solar greenhouse as documented at an Ecotope workshop.

Order from: Ecotope Group, 2332 E. Madison, Seattle, WA 98112

passive

The First Passive Solar Catalog. Bainbridge, David. Davis, Calif.: The Passive Solar Institute; 1978. (71 p.) $5.00.

This publication brings together a wealth of information and resources on passive solar design. There is comprehensive coverage of passive solar heating and cooling systems, water heaters, and natural lighting systems. A directory of manufacturers and dealers of passive solar components and products and a directory of 150 passive consultants are included. Several chapters have extensive bibliographic references. Drawings and detailed descriptions of 12 existing passive solar buildings (eight in California, two in Minnesota, and one each in Colorado and Montana) are presented. The second edition is scheduled for January 1980.

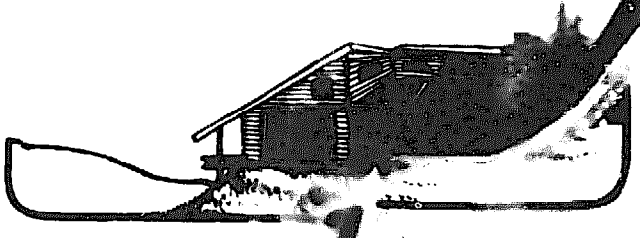
Order from: The Passive Solar Institute, P.O. Box 722, Davis, CA 95616

From the Ground Up. Cole, John N.; Wing, Charles. Boston, Mass.: Little, Brown and Co.; 1976. (244 p.) $7.95.

Informative chapters on wood, nails, foundations, framing, heating, wiring, plumbing, light, and sound are written in a motivational style to stimulate readers to build their own homes "from the ground up." However, the unique feature of this book is the authors' insight on planning, designing, and siting a "postindustrial" home—a shelter which conserves energy, utilizes renewable resources, saves money, enhances human comfort, and harmonizes with the natural environment. Both authors have designed and built their own homes.

Order from: Little, Brown and Co., 200 West St., Waltham, MA 02154

Natural Solar Architecture: A Passive Primer. Wright, David. See **survivor's kit**



Passive Solar Buildings: A Compilation of Data and Results. Woodall, S. D.; Stromberg, R. P.; Albuquerque, N. Mex.: Sandia Laboratories, 1977. (71 p.) $5.25.

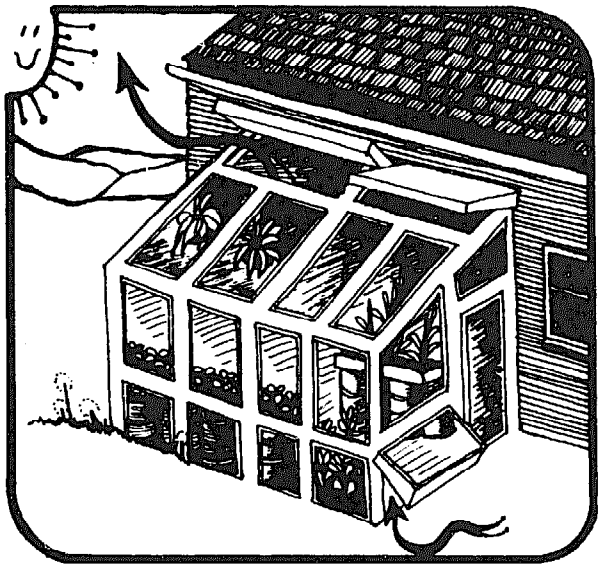
This report contains performance test data of five passive solar design concepts (direct gain, thermal storage wall, sunspace, greenhouse, roof ponds, and convective loop) which have been incorporated into buildings in a variety of climates and locales. The book will be updated.

Order from: National Technical Information Service, 5285 Port Royal Rd., Springfield, VA 22161 (Report No. SAND 77-1204) Also: Greenhouses

Passive Solar Design. A Short Bibliography for Practitioners. American Institute of Architects (AIA) Research Corp. Washington, D.C.: U.S. Department of Energy, Office of Conservation and Solar Applications; 1978. (17 p.) $4.5

This bibliography is divided into 20 subject matter categories, with entries listed alphabetically according to author. It is not exhaustive, but rather contains a sampling of information available at the time of publication. Categories are 1) costs, economics, politics; 2) design concepts; 3) design examples; 4) weather, climate, insolation; 5) human comfort; 6) greenhouses; 7) agriculture; 8) glazing; 9) storage; 10) insulation; 11) hybrids; 12) liquid thermosiphon systems; 13) general cooling; 14) ventilation; 15) convection; 16) evaporation; 17) evaporation-condensation; 18) radiation; 19) re-radiation; and 20) reflectivity.

Order from: National Technical Information Service, 5285 Port Royal Rd., Springfield, VA 22161 (Report No. HCP/C5-4113)



Passive Solar Design: A Survey of Monitored Buildings. American Institute of Architects (AIA) Research Corp. Washington, D.C.: 1978. (353 p.) $12.50.

This survey consists of collected articles reporting the thermal performance of buildings using passive solar techniques. There is a summary of the results.

Order from: National Technical Information Service, 5285 Port Royal Rd., Springfield, VA 22161 (Report No. HCP/C5-4113-2)

The Passive Solar Energy Book: A Complete Guide to Passive Solar Home, Greenhouse and Building Design. Mazria, Edward. See **survivor's kit.**

Free **The Passive Solar Story: Using the Sun's Energy without Solar Collector Panels.** Pacific Gas and Electric Co. San Francisco, Calif.: 1978. (17 p.).

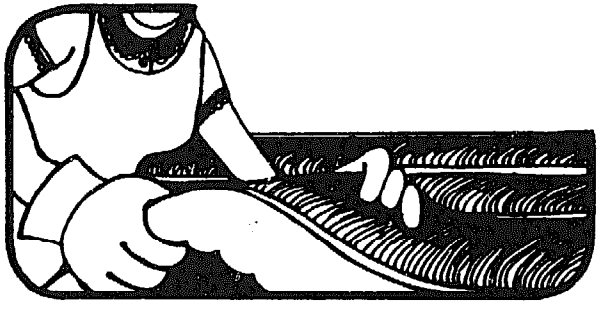
This pamphlet offers a lucid, nontechnical, consumer-oriented explanation of passive solar energy. Ideas such as southern exposure, double-paned windows, and evergreens as windbreaks are suggested. There is a discussion of the four general types of passive applications: 1) direct gain buildings, 2) thermal storage walls, 3) roof ponds, and 4) solar greenhouses. Color illustrations effectively supplement the written text. This is an excellent overview of passive solar energy for the uninitiated.

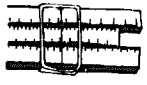
Order from: Pacific Gas and Electric Co., Energy Conservation and Services Department, 77 Beale Street, San Francisco, CA 94106
Also: Greenhouses

Regional Guidelines for Building Passive Energy Conserving Homes. American Institute of Architects (AIA) Research Corp. Washington, D.C.: U.S. Department of Housing and Urban Development, Office of Policy Development and Research; 1978. (312 p.) $5.25.

The United States has been divided into 13 areas representing localized design descriptions of climatic liabilities and assets. Each regional chapter contains general building principles to aid in energy conservation, including illustrated examples on applying the principles. In the second section there are detailed explanations of the concepts of passive heating (direct gain, indirect gain, isolated gain, time-lag heating, and underground heating) and passive cooling (natural ventilation, desiccant cooling, evaporative cooling, night sky radiation cooling, time-lag cooling, and underground cooling) with detailed illustrated case studies of each. There is a short bibliography. The arrangement, the clear language, and numerous illustrations make this an excellent source for the study and application of passive solar design.

Order from: Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402 (Stock No. 023-000-00481-0)
Also: Energy Conservation

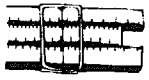




Solar Architecture. Franta, Gregory E.; Olson, Kenneth R., eds. Ann Arbor, Mich.: Ann Arbor Science Publishers, Inc.: 1978. (331 p.) $15.

This is a collection of papers presented at the 1977 Aspen Energy Forum. The emphasis is on passive systems, including four articles on greenhouses and case studies of solar buildings in the Roaring Fork Valley, Telluride, and Denver (all in Colorado). Other topics include wind power, wood, methane, and composting toilets. A brief index is included.

Order from: Ann Arbor Science Publishers, P.O. Box 1425, Ann Arbor, MI 48106
Also: Active Solar; Greenhouses; Wind; Woodburning



Solar Energy: Fundamentals in Building Design. Anderson, Bruce. New York: McGraw-Hill Book Co.; 1977. (374 p.) $21.50.

This technical version of *The Solar Home Book* was written for architects and building professionals. Chapters include 1) Solar Energy: A Context for Its Proper Use, 2) Designing with the Sun, 3) Low Impact Technology Solutions, 4) Solar Hot Water, 5) Systems for Indirect Use of The Sun's Energy, and 6) Energy and Solar Energy Phenomena. Six appendices provide design information: A) conversion factors, B) degree days and design temperatures, C) insulating values of building materials, D) heats and densities of heat storage materials, E) emittances and absorptances of materials, and F) heat equivalents of fuels for solar backup. An extensive bibliography and index complete the work. Principles are presented in a usable, clear format without complicated mathematical formulae. Numerous black and white photographs and drawings supplement the written material.

Order from: McGraw-Hill Book Co., 1221 Avenue of the Americas, New York, NY 10036
Also: Active Solar; Domestic Hot Water

A Survey of Passive Solar Buildings. American Institute of Architects (AIA) Research Corp. Washington, D.C.: U.S. Department of Housing and Urban Development, Office of Policy Development and Research; 1978. (176 p.) $3.75.

This publication surveys almost 100 passive solar buildings throughout the United States. For each building there are pictures, climatic data, brief description of the building solar system, and performance evaluation. Arrangement is by category: 1) direct gain, 2) indirect gain, and 3) isolated gain. An index at the beginning is arranged alphabetically by state.

Order from: Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402 (Stock No. 023-000-00437-2)

Underground Designs. Wells, Malcolm. Cherry Hill, N.J.: Solar Service Corp.; 1977. (88 p.) $6.00.

These designs, collected over 13 years, include drawings for underground buildings, both built and unbuilt. Many of the drawings include comments on the recent rediscovery of the natural phenomena involved in this new/old way of building. Much valuable technical material on land, laws, structures, insulation, drainage, and landscaping is included.

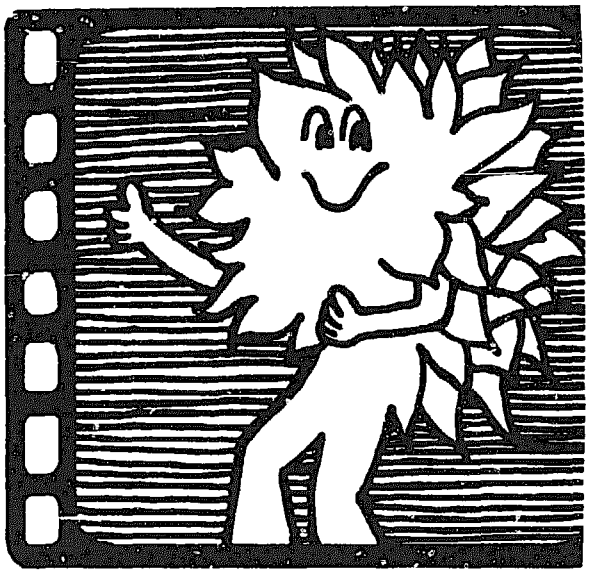
Order from: Solar Service Corp., P.O. Box 183, Cherry Hill, NJ 08002

Free

Use Solar Daylight & Heat. PPG Industries. Pittsburgh, Pa.; (n.d.) (18 p.).

Brightly colored illustrations show how carefully designed windows are cost-effective and capable of saving energy and money. This is one industry's way to sell its product.

Order from: PPG Industries, One Gateway Center, Pittsburgh, PA 15222



films/slides

National Solar Heating and Cooling Information Center (NSHCIC) Passive Solar Slide Show. 1978.

18 minutes
80 slides with cassette narration
Free loan

This slide show provides an introduction to widely used applications of passive solar design. The slides can be duplicated for educational purposes.

Order from: NSHCIC, P.O. Box 1607, Rockville, MD 20850

New England Solar Energy Association (NESEA) Passive Solar Slide Sets. 1979.

Two sets, A—32 slides; B—29 slides with data sheet
$35 per set/purchase; both sets $60/purchase

- Set A—Covers direct gain, sunspace, and thermosiphon systems through looks at four houses in Massachusetts (Saunders house, Weston; MIT House 5, Cambridge; Williams house, Wellfleet; Belmont house, Belmont); two houses in Vermont (Shapiro house, Burlington; Brown house, Hinesburg); the Horizon's Edge School in Canterbury, New Hampshire; and the Caivano house in Bar Harbor, Maine.
- Set B—examines Trombe walls, roof ponds and hybrid systems. Houses pictured include the Laser house in Milford, Connecticut, Saunders Solar Shanty in Weston, Massachusetts, and six New Hampshire Homes (Tyrell house, Bedford; Lakehouse, Canterbury; Freese house, Concord; Goosebrook and Tri-Sol houses, Harrisville; and Style Craft Solar Home, Keene).

Order from: NESEA, P.O. Box 541, Brattleboro, VT 05301

New Mexico Passive Solar Buildings. 1978.

13-1/2 minutes
16mm, color
Free loan

Examples are from a hot, dry climate. Very well done film with easy-to-understand graphics which demonstrate and explain the three basic approaches to passive solar heating: direct gain with thermal mass, Trombe walls, and greenhouses.

Real-life examples are demonstrated in five homes in New Mexico.

Order from: U.S. Department of Energy (DOE) Technical Information Center, Energy Film Library, P.O. Box 62, Oak Ridge, TN 37830
Also: Greenhouses

New Mexico Solar Energy Association (NMSEA) Passive Solar Slide Sets. 1978.

Six sets, 20 slides each with written text
$12 per set/purchase; all six sets $60/purchase

- Set A-General—provides an introduction to solar energy including definitions and pictures of various passive applications.
- Set B-Direct Gain—includes 11 different applications in various climates.
- Set C-Solar, Geometry, Movable Insulation—explores these three vital considerations.
- Set D-Thermal Storage Walls—includes masonry Trombe walls, drum walls and combination water and masonry walls.
- Set E-Attached Greenhouses—includes 12 different applications of both integral and retrofit greenhouses.
- Set F-Convective Loops and Roof Ponds—covers water and air convective systems, and roof ponds in California and New Mexico.

Order from: NMSEA, P.O. Box 2004, Santa Fe, NM 87501
Also: Greenhouses

A Place to Live. 1978.

24 minutes
16mm, color
$375/purchase; $75/rental

This film records the building of the owner's home in Bath, Maine—1,000 square feet for $4,800. The owners, who narrate the film, are also founders of the Shelter Institute, which espouses a philosophy of self-reliance and use of locally available materials. The home is passively solar heated with wood backup, and is cooled by summer winds. The information is presented in a how-to fashion.

Order from: Fred James/ Lumen-Bel, Inc., 303 W. 11th St., Box 311, New York, NY 10014

Zomeworks Solar Slide Set. 1974.

21 slides with script
$12/purchase

These slides describe beadwall construction, drum heat storage, and skylid operation for passive solar design.

Order from: Zomeworks Corporation, P.O. Box 712, Albuquerque, NM 87103

policy

Free 

Alternative Energy Sources: An Appraisal. Carroll, James J; Geesman, John L. San Francisco, Calif.: California Council for Environmental & Economic Balance; 1978. (28 p.).

This report explores alternative energy options (geothermal, solar, wind, bioconversion, co-generation, and fuel cells) for California. It analyzes the current state and probable future role of each, covering such topics as availability, costs, market prospects and potential, regulatory problems, and environmental effects. There is an attempt to assess the probable role of each option in the future. There are copious footnotes and a glossary of energy terms. Conciseness and objectivity are the strong points of this report.

Order from: California Council for Environmental & Economic Balance, 215 Market St., Suite 930, San Francisco, CA 94105

Blueprint for a Solar America. Hayes, Denis et al. Washington, D.C.: Solar Lobby; 1979. (39 p.) $2.00.

Authors from seven different organizations contributed to this book to present a strong argument for making solar energy the focus of an ambitious national program to provide alternatives to fossil fuels. It discusses a variety of topics, including economics and environmental issues, that support the case for more emphasis on solar development. It then presents the kinds of policies the Federal government should adopt to make proper use of the solar potential.

Order from: Solar Lobby, 1001 Connecticut Ave. NW, Fifth Floor, Washington, DC 20036
Also: Solar (General)

Creating Alternative Futures: The End of Economics. Henderson, Hazel. New York: Berkley Publishing Corp.; 1978. (403 p.) $4.95.

This paperback book represents the collected writings of futurist Hazel Henderson with an introduction by E. F. Schumacher. Henderson, who with her husband Carter is codirector of the Princeton Center for Alternative Futures, describes herself as "... just a human being trying to act sensible under the current circumstances of existence." Her essays, which have appeared widely in magazines, cover a wide range of energy, economic, and societal issues. The style requires concentration and a good dictionary, but is well worth the intellectual challenge to cherished myths of traditional economics. The 23 essays are grouped into two sections: The End of Economics, and Creating Alternative Futures. Sample titles in the first section are: The Finite Pie: The Limits of Traditional Economics in Making Resource Decisions; Let Them Eat Growth; and Autopsying the Golden Goose. Within the second grouping are Coping with Organizational Future Shock, Information and the New Movements for Citizen Participation, and Pluralistic Futurism.

Order from: Berkley Publishing Corp., 200 Madison Ave., New York, NY 10016

Free **Employment Impacts of the Solar Transition.** Rodberg, Leonard S. Washington, D.C.: U.S. Government Printing Office; 1978. (49 p.).

The study estimates the impact on employment of the widespread investment of an energy conservation/solar energy future. Economic projections estimate the employment resulting from such spending. The number of jobs created and resulting energy savings for a given level of private sector investment are quantified.

Order from: Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402 (Joint Economic Sub-Committee on Energy; Committee Print No. 39-666)

Energy and Order: A High School Teaching Sequence. Terry, Mark; Witt, Paul. San Francisco, Calif.: Friends of the Earth; 1976. (42 p.) $3.00.

A short booklet which contains simple activities and discussion topics to help high school students develop an understanding of thermodynamics, entropy, and energy intensiveness, and use these principals to study the interrelationships of environmental problems, the "energy crisis," and energy production.

Order from: Friends of the Earth, 124 Spear St., San Francisco, CA 94105

Energy, Food and You: An Interdisciplinary Curriculum Guide for Elementary Schools. Washington State Office of Environmental Education. Seattle, Wash.: 1977. (292 p.) $5.00.

This is an excellent book chock full of great ideas, games, activities, and information with which to explore nearly every angle and implication of the title. Especially useful for classes focusing on gardening and nutrition. Some of the concepts explored are renewable and non-renewable energy sources; the energy flows involved in all events—human and otherwise; energy provided by the sun for all life forms through food chains; over population as an increasing world problem; the hidden energy and environmental costs in every product we make or use; the impact of indirect energy costs on food in relation to the distance, time, and processing involved; and the ways we can use energy and resources more efficiently in our food system. A similar book is available for the secondary level.

Order from: Washington State Office of Environmental Education, c/o Shoreline School District Administration Building, NE 158th and 20th Aves. NE, Seattle, WA 98155 (Make check payable to Educational Service District 121)
Also: Solar (General); Energy Conservation

Energy for Survival: The Alternative to Extinction. Clark, Wilson. Garden City, N.Y.: Anchor Press/Doubleday; 1974. (652 p.) $4.95.

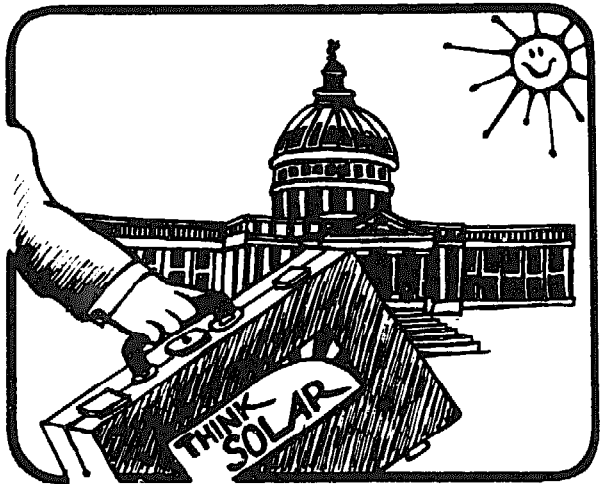
This comprehensive, well-documented reference textbook discusses past, present, and future energy sources, and provides detailed descriptions of both conventional and renewable sources of energy. A major portion of the book is devoted to solar energy. The copious footnotes citing books, journal articles, government publications, and technical reports have been compiled in chapter-by-chapter arrangement after the text. There is an extensive index.

Order from: Doubleday and Co., Inc., 501 Franklin Ave., Garden City, NY 11530
Also: Solar (General); Wind

Energy: The Solar Prospect. Hayes, Denis. Washington, D.C.: Worldwatch Institute; 1977. (79 p.) $2.00.

This adaptation from the author's book, *Rays of Hope: The Transition to a Post-Petroleum World*, covers solar energy, wind power, water power, and biomass conversion.

Order from: Worldwatch Institute, 1776 Massachusetts Ave. NW, Washington, DC 20036 (Worldwatch Paper #11)
Also: Solar (General)



The Politics of Energy. Commoner, Barry.
See **survivor's kit.**

Potential Energy: An Analysis of World Energy Technology. Kenward, Michael. New York: Cambridge University Press; 1976. (227 p.) $7.95.

The basic purpose of this book is to review the state of technology in several energy resource areas (coal, oil, gas, nuclear, geothermal, and tidal power) as a backdrop for determining how money should be spent in future research and development of energy sources. The author sees the book as an assessment on which plans for future research could be based, without suggesting what a future research agenda should be. It is international in scope with a focus on Great Britain. The text is written in a fairly academic style and includes an index. The conclusions drawn may not agree with those of others who write in the field.

Order from: Cambridge University Press, 501 North Ave., New Rochelle, NY 10801
Also: Solar (General)

Proceedings of Solar Energy Consumer Protection Workshop; Opening and Final Plenary Sessions: Volume I. Florida Solar Energy Center. Atlanta, Ga.: U.S. Department of Energy, Office of Conservation and Solar Applications; 1979. (214 p.) $9.25.

This conference was held under U.S. Department of Energy (DOE) sponsorship by the Florida Solar Energy Center to develop and recommend strategies to reduce

the potential risks to solar consumers. The proceedings cover the opening session which provides a history of solar energy, the nature and operation of solar equipment, the solar market and its outlook, and information on the experiences of the solar consumer (in Florida primarily) to date. The proceedings also provide results of four working groups and general discussion on standards setting, testing, certification, and labeling; federal, state and local consumer protection laws; warranties; utility regulation; and self-regulation by trade, business and industry groups.

Order from: National Technical Information Service, 5285 Port Royal Rd., Springfield, VA 22161

Rays of Hope: The Transition To a Post-Petroleum World. Hayes, Denis. New York: W.W. Norton & Company; 1977. (240 p.) $3.95.

This treatise focuses attention on the energy crisis and attempts to put it in proper historical and global perspective: the world finds itself in the twilight of the oil age and on the brink of a major energy transition. Although the transition is technological, it will have a profound impact on social structures, economic systems, and political entities. Hayes hypothesizes two possible sources of power which could replace petroleum: nuclear and solar. After a comprehensive examination of each he concludes that a nuclear-powered world would be centralized and authoritarian with carcinogenic, mutagenic, and toxic byproducts; a solar-powered world would be decentralized and egalitarian with decreased pollution and increased employment. Hayes opts for the latter. This is a thought-provoking investigation into an emerging global problem. It is a well-organized, scholarly discussion.

Order from: W. W. Norton & Company, Inc., 500 Fifth Ave., New York, NY 10036
Also: Solar (General)

Small is Beautiful: Economics as if People Mattered. Schumacher, E. F. New York: Harper & Row Publishers, Inc.; 1973. (390 p.) $8.95.

This book supports the viewpoint of solar advocates and people seeking alternative lifestyles, communal households, and do-it-yourself techniques, by presenting a philosophical view of economics which rejects "bigness" and its inefficiences, and lays the foundation to suport decentralized economic decisionmaking. The book is a classic.

Order from: Harper & Row Publishers, Inc., 10 E. 53rd St., New York, NY 10020

Soft Energy Paths: Toward a Durable Peace. Lovins, Amory B. Cambridge, Mass.: Friends of the Earth International and Ballinger Publishing Co.; 1977. (256 p.) $6.95.

This book has stimulated an international debate focused on the choices society should be making regarding energy technology and economy. Lovins points out the distinction between two alternative energy futures, referred to as a soft path and a hard path which society could pursue. A soft path would rely on decentralized energy sources, matching appropriate energy sources to specific end uses; the hard path would rely on centralized energy sources, making no distinction regarding whether the energy source is the most appropriate for a given end use. Lovins provides a wealth of supporting references and statistics to support the soft path.

Order from: Ballinger Books, East Washington Square, Philadelphia, PA 19105

Solar Energy in America. Metz, William D.; Hammond, Allen L. Washington, D.C.: American Association for the Advancement of Science; 1978. (239 p.) $18.50.

This book offers a description of the dramatic developments in solar energy which have occurred in the United States since 1973. It covers both direct and indirect (biomass, wind, and ocean thermal energy) solar technologies. It conveys vast private and governmental research activities currently in progress as well as probable activities for the immediate future of each. The authors caution against overconcentration of funding in one or two technical concepts. With solar energy research still in its infancy, an overconcentration in one area could retard development in another which might eventually prove to be more beneficial. This is an objective, well-written overview of the state-of-the-art of solar energy in the United States. There are over 90 black and white illustrations throughout the text.

Order from: American Association for the Advancement of Science, 1575 Massachusetts Ave. NW, Washington, DC 20005

Solar Law: Present and Future, with Proposed Forms. Kraemer, Stanley F. New York: McGraw-Hill Book Co.; 1978. (364 p.) $35.

The author, who has been involved in solar law since 1973, provides a practical and legal analysis of future issues he believes will evolve with the increased use of solar power. A review of laws concerning easements, covenants, zoning, land use regulations, public and private nuisance, eminent domain, the appropriation doctrine, transferable development rights, air pollution, and building codes accompanies conclusions and recommendations for application of these bodies of law for accelerated solar development. Written in a scholarly manner, this text has copious footnotes, supplemental illustrations, appendices, and an index.

Order from: McGraw-Hill Book Co., 1221 Avenue of the Americas, New York, NY 10036
Also: Solar (General)

Free **State Solar Legislation.** National Solar Heating and Cooling Information Center (NSHCIC). Rockville, Md.: 1978. (11 p.).

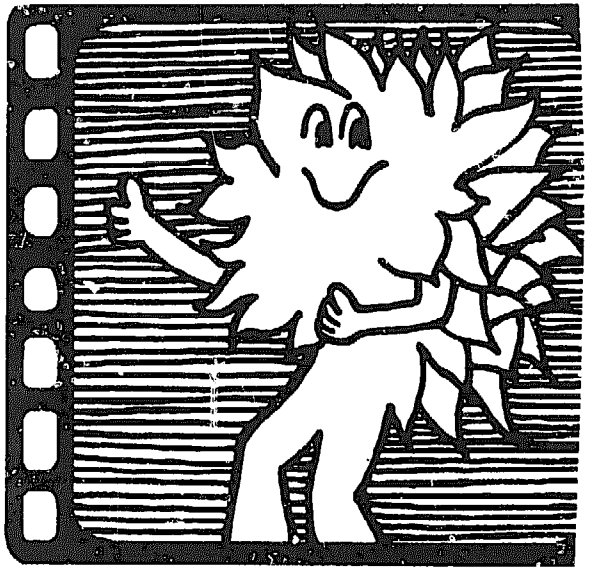
The report provides summaries of state solar legislation as of July 1978. It describes the legislation under categories including 1) Financial Incentives, 2) Solar Access, 3) Standards for Solar Systems, and 4) Building Code Provisions. Each entry includes a state contact for further information.

Order from: NSHCIC, P.O. Box 1607, Rockville, MD 20850

SUN! A Handbook for the Solar Decade. Lyons, Stephen, ed. San Francisco, Calif.: Friends of The Earth; 1978. (364 p.) $2.95.

The official book of the first International Sun Day contains 21 essays which reflect on solar energy and the future. Contributors include Amory Lovins, Denis Hayes, and Ivan Illich.

Order from: Friends of the Earth, 124 Spear St., San Francisco, CA 94105



films/slides

Energy: A Matter of Choices. Encyclopedia Britanica Corp.; 1973.

22 minutes
16mm, color
$290/purchase; $17/rental

This film is a good one to help raise people's awareness of the current energy situation and the tough decisions the country will have to make about supply and demand in the future. It shows how energy is used in an industrialized society, and discusses the availability of the major sources—fossil fuels, hydro, and nuclear. The film highlights changes in electrical supply as an example of problems faced in other sources. Old TV ads promoting all-electric homes are used to illustrate how our attitudes toward energy usage have changed.

Order from: Encyclopedia Britanica Education Corp., 425 N. Michigan Ave., Chicago, IL 60611 (#3301)

Time did not permit review of these last-minute additions.

E.F. SCHUMACHER...as if peopled mattered. Bitterroot Films; 1977.

15 minutes
16mm, color
$200/purchase; $35/rental

This is an interview with Dr. Schumacher discussing the dilemmas that confront modern society as he elaborated in his book *Small is Beautiful...*

Order from: Bitterroot Films, Hammond Arcade, Missoula, MT 59801

The Terrible News. Bitterroot Films; 1973.

25 minutes
16mm, color
$350/purchase; $35/rental

This film deals with the relationship between natural energy systems and industrial energy systems from a hard-core environmental point of view.

Order from: Bitterroot Films, Hammond Arcade, Missoula, MT 59801

Bitterroot also has in production two other films: **Amory Lovins—Hard Path, Soft Path** (15 minutes); and **Energy and Morality** (45-60 minutes).

Sunbeam Solution. Time/Life Multimedia; 1973.

38 minutes
16mm, color
$425/purchase; $40/rental; $300/videotape purchase

This is a good overview film for investigating our current rate of energy consumption and how solar may offer some answers for the future. It presents information about the use of, and issues surrounding, the following technologies: nuclear, solar space satellites, solar farms, hydro, wind, tidal power, geothermal, and hydrogen.

Order from: Time & Life Bldg., New York, NY 10020; or University of California, Media Extension Center, Berkeley, CA 94720 (film #1620; videotape #V1341)
Also: Solar (General)

Toast. 1974.

12 minutes
16mm, color
$180/purchase; $18/rental

This film shows the enormous amount of energy that goes into putting the daily slice of toast on the breakfast table. It has no dialogue—background music and sounds only. (It would be even better animated.)

Order from: Bullfrog Films, Oley, PA 19547

wind

Harnessing the Wind for Home Energy. McGuigan, Dermot. See **survivor's kit.**

The Homebuilt Wind-Generated Electricity Handbook. Hackleman, Michael. Culver City, Calif.: Peace Press; 1975. (194 p.) $8.00.

In this companion volume to *Wind and Windspinners*, the author continues his do-it-yourself approach to wind power systems. The book describes the expeditions conducted by the Earthmind group to locate and acquire vintage wind machines (Jacobs and Windchargers). There is a complete guide to rebuilding, restoring, and installing these machines. This book retains a folksy, illustrated style, although the mechanical and technical details presume minimal prior knowledge of the subject matter.

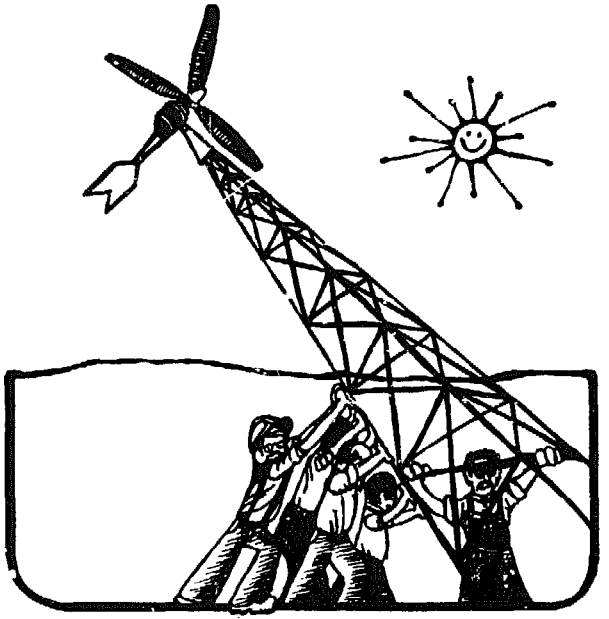
Order from: Earthmind, 5246 Boyer Rd., Mariposa, CA 95338

Free

Science Activities in Energy Series: Wind Energy. Oak Ridge, Tenn.: American Museum of Science and Energy; 1978. (12 p.).

This activity folder is similar to the Solar Energy material in the same series. Each sheet in the packet poses a leading question about some property of wind energy, which is answered by performing the accompanying experiment. The experiments are short, easy-to-do activities using very common materials, and instructions are clear enough for students (grades 4-6) to follow on their own. The format encourages creativity and variation.

Order from: U.S. Department of Energy (DOE) Technical Information Center, P.O. Box 62, Oak Ridge, TN 37830 (DOE/IR-0037)



Free **Selecting Water-Pumping Windmills.** New Mexico Energy Institute. Las Cruces, N. Mex.: 1978. (14 p.).

This handbook describes the various parts of a water-pumping windmill, how they work, and variations of each. It lists factors to consider in selecting a windmill site and in choosing the right windmill. Sections include I) The Windmill, What it Does and How it Works; II) Lift, Transport, and Storage; III) Siting and Sizing. Fourteen illustrations supplement the easily read textual materials. It suggests sources for further information and gives the names and addresses of three U.S. windmill manufacturers.

Order from: New Mexico Energy Institute, New Mexico State University, P.O. Box 3E1, Las Cruces, NM 88003

Simplified Wind Power Systems for Experimenters. 2nd ed. Park, Jack. Brownsville, Calif.: Helion, Inc.; 1975. (80 p.) $6.00.

This manual provides a cookbook approach for designing and planning the construction of any wind-powered energy system. Engineering equations and charts have been simplified and accompanied by examples of their usage so that individuals at the grassroots level can apply them to their needs. The design approach used is one of approximation; although numbers may not be exact, they are usually well within necessary accuracy. Material is presented in building block fashion so the reader can appreciate the numerous steps involved in planning the construction of any type of windmill device. Five appendices contain technical information: A) windmill data, B) airfoil data, C) how to read a graph, D) detailed windmill performance, and E) strength of construction materials. A brief bibliography lists other sources of non-technical information.

Order from: Helion, Inc., P.O. Box 445, Brownsville, CA 95919

Wind Machines. Eldridge, Frank. Washington, D.C.: U.S. Government Printing Office, 1975. (77 p.) $6.00.

This document provides a brief survey of the viability, history, taxonomy, and future potential of various types and sizes of wind machines that might be used to help meet future U.S. energy demands. Possible applications of wind machines, siting problems, performance characteristics, and system designs are also covered. A glossary of commonly used wind terms and phrases is found in the appendix. This report provides an excellent overview of wind energy applications.

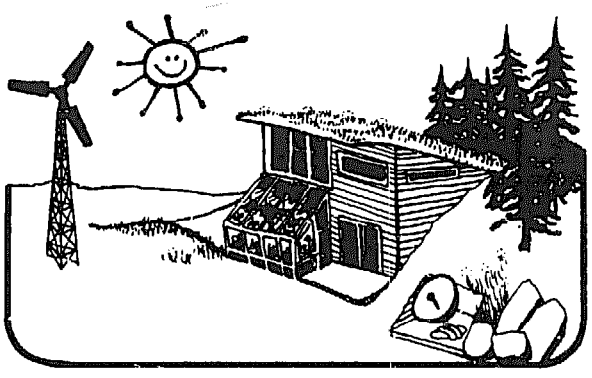
Order from: Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402 (Stock No. 038-000-00272-4)

Windmills and Watermills. Reynolds, John. New York, London: Praeger Publishers; 1970. (196 p.) $8.95.

This study traces the worldwide historical development of watermills and windmills within a social context, explaining how wind and water were utilized in a bygone era. The descriptions of milling and milling machinery are supplemented by the author's isometric drawings and exquisite black and white photographs which graphically interpret the function of each component and illustrate the mechanical and building arrangement. There is a comprehensive glossary of milling terms as well as an index. The author, an English

architect, has incorporated an artistic quality into this well-researched reference work.

Order from: Holt, Rinehart and Winston, 383 Madison Ave., New York, NY 10017



Windmill Power for City People. New York City Energy Task Force. Washington, D.C.: U.S. Government Printing Office; 1977. (65 p.) $2.60.

This publication records the experiences with an urban wind energy installation in New York City's Lower East Side. The machine generates electricity for the public space electrical circuits in a rehabilitated residential cooperative. The report contains operational and installation details, cost-benefit studies, prints, and diagrams, as well as technical appendices.

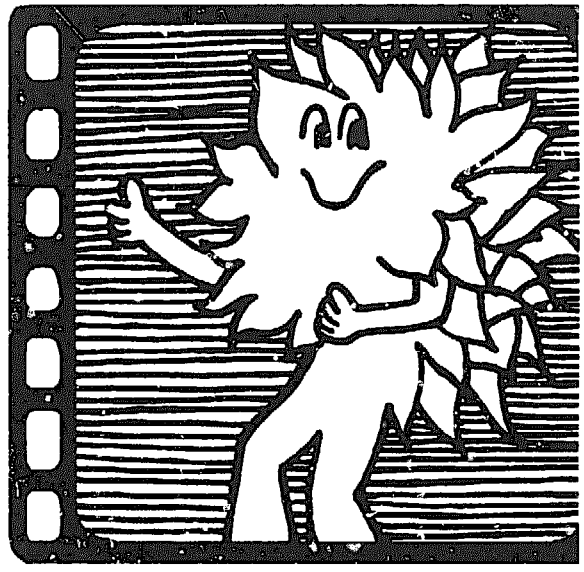
Order from: Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402 (Stock #059-000-00001-2)

Wind Power for Farms, Homes and Small Industry. Park, Jack; Schwind, Dick.
See **survivor's kit.**

Wind Power for Your Home. Sullivan, George. New York: Cornerstone Library; 1978. (127 p.) $4.95.

This book explains the potential of wind power for the average urban, suburban, and rural homeowner. Charts and graphs of average wind speeds throughout the United States enable the reader to determine appropriate types and sizes of wind systems. The author has interviewed owners of wind-driven electric systems and water pumps throughout the country and recorded their experiences. Wind-driven electric systems currently on the market are surveyed. Another do-it-yourself section offers complete plans and instructions for building a wind-driven power system. Extensive use of charts and graphs simplify the textual material. Nontechnical language and black and white photographs heighten the appeal of this guide.

Order from: Simon and Schuster, Inc., 1230 Avenue of the Americas, New York, NY 10020



films/slides

Gusts of Power. 1979.

14 minutes
16mm, color
$100 (approx.)/purchase; free loan

The film covers wind machines used for rural and agricultural applications, including deep-well pumping and irrigation, building and water heating, cooling for crop storage, and refrigeration for dairy farms. The film covers machines currently operating for the above applications.

Order from: Rental: U.S. Department of Energy (DOE) Technical Information Center,

Energy Film Library, P.O. Box 62, Oak Ridge, TN 37830; Purchase: National Audiovisual Center, GSA, Order Section FF, Washington, DC 20409

woodburning

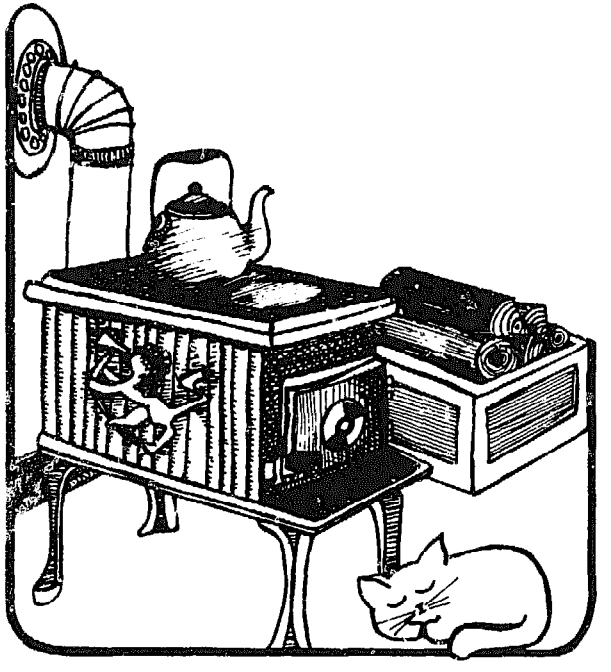
The Complete Book of Heating with Wood. Gay, Larry. Charlotte, Vt.: Garden Way Publishing Co.; 1974. (128 p.) $3.95.

This book covers the environmental impact of burning fuel wood. There are descriptions of old and modern stoves and other woodburners. The last chapter offers advice on placement of woodburners and hints for increasing efficiency. The author, a professor of sciences and environmental subjects, cuts and burns about six cords of mixed hardwoods yearly for the sole heat in his family's mountain homestead.

Order from: Garden Way Publishing Co., Charlotte, VT 05445

Heating Your Home with Wood. Soderstrom, Neil. New York: Harper & Row Publishers, Inc.; 1978. (199 p.) $3.95.

Drawing upon personal experiences with a wood stove in the family home in upper New York State, the experiences of fellow "wood enthusiasts," and extensive background reading, the author provides an A-to-Z panorama of wood heat. The text runs the gamut from scientific principles of woodburning to practical considerations of wood heat. Included are discussions of the "lab science" of woodburning; creosote and chimney fires; home heating principles; installing a woodburning system; cleaning chimneys and stovepipes; fire preparedness and safety; cooking; seasoning wood; hand- and chain saw basics; hand- and power-splitting; and logging. The chapter on wood fuel gives a regional guide to North American fuel woods. Illustrated with over 150 black and white photographs and drawings, this book is an invaluable source of information and practical advice on all aspects of wood heat. Technical data is kept to a minimum and clearly explained wherever it is included.



Order from: Harper & Row Publishers, Inc., 10 E. 53rd St., New York, NY 10020

The New, Improved Wood Heat. 2nd ed. Vivian, John. Emmaus, Pa.: Rodale Press, Inc.; 1978. (428 p.) $7.95.

The author recounts his family's experiences with wood stoves and fireplaces. Interspersed with many black and white drawings and pictures, this book describes "everything you ever wanted to know" about using wood as a fuel source. A bibliography lists additional books and periodicals which give more in-depth coverage of the various topics; there are lists of manufacturers and dealers of wood stoves, fireplaces, and accessory equipment. A lengthy index permits easy retrieval of information on specific topics.

Order from: Rodale Press, Inc., 33 E. Minor St., Emmaus, PA 18049

The Woodburner's Encyclopedia. Shelton, Jay.
See **survivor's kit.**

Wood Energy. Holzman, David; Paskin, Maureen. Washington, D.C.: Citizens' Energy Project; 1978. (9 p.) $.40.

This report surveys the current state of wood energy in the United States, including advantages and disadvantages of its use, and speculates on the feasibility of its increased use in the future. It provides an overview of government and community attempts to promote wood as an alternative energy source, citing what has been done as well as what could be done. There is an

excellent consumer-oriented bibliography on wood as well as an extensive list of manufacturers and distributors of wood-burning stoves with tips for purchase. Projects mentioned throughout the report include contact information.

Order from: Citizens' Energy Project, 1110 6th St. NW, #300, Washington, DC 20001
Also: Policy

organizing

ACT ONE: Activate Communities Today/Organize Now for Energy: A Workbook for Participants in the Training Session for Community Development. U.S. Department of Energy (DOE), Office of Consumer Affairs. Washington, D.C.: 1979. (200 p.) Price undetermined.

This book was originally conceived as a resource document to be used at a series of workshops held by DOE and the U.S. Department of Housing and Urban Development (HUD) for low-income community leaders. It is a very useful compilation of information on a variety of DOE/Community Services Administration (CSA)/HUD grant possibilities. The lack of an index makes it somewhat awkward to use. Much of the information offered on specific programs comes from reprints of descriptions that appeared in the *Federal Register*. Regional and Federal contacts are given for each program for further information. Grant programs covered are Appropriate Technology Small Grants Program; National Solar Heating and Cooling Demonstration Program; Title IV Weatherization Assistance Program for Low-Income Persons; Utility Hearing Consumer Intervention Funding Program; Winter Emergency Crisis Intervention Funds; the proposed Residential Energy Conservation Service Program; National Consumer Cooperative Bank; the 10 pilot Energy Extension Services; the Federal Energy Credit for Individuals, Energy Audits for Schools, Hospitals, Local Government; and Public Care Buildings Grants Program. The final section of the book contains information on all the Federal laws that pertain to these programs; a list of publications and films available through the DOE Technical Information Center; and information on how to arrange for a Citizens' Workshop on Energy and the Environment in your area.

Order from: For information on price and source, contact DOE Office of Consumer Affairs, Room 7B180, Forrestal Building, 1000 Independence Ave. SW, Washington, DC 20585.

A Community Project in Alternate Energy: Epoch B. Gilles, Janet. Evanston, Ill.: Evanston Environmental Association; 1978. (112 p.) $3.50.

The book documents the efforts of an ever-evolving group of citizens in Evanston, Ill. They began an informal process of discussing what could be done to live more compatibly with the environment and ended up with a full-fleged community-scale program to address many aspects of that issue. In addition, a solar system was added to the local ecology center. The historical documentation is intended as a guide for citizens in other communities who might like to tackle such a job. Many observations about problems and things learned from the experience of undertaking energy conservation and solar projects with a group are recounted to alert others to potential pitfalls. A number of organizational and technical appendices constitute over half the book and give more in-depth information on finances of the workshops; grant and in-kind materials and professional services; fund-raising; planning programs for the workshops; calculating heat loss; comparison of insulation materials and other details; design and diagrams of solar system for the Ecology Center; wind characteristics; and the appropriateness of asbestos for solar collectors. Finally, there is an 11-page listing of sources of information on publications and organizations covering solar, wind, insulation, and community topics.

Order from: Epoch B, Evanston Environmental Association, 2024 McCormick Blvd., Evanston, IL 60201

Energy Teach-Ins: Organizing for a Brighter Future. Woolf, Diane et al. Amherst, Mass.: MASSPIRG; 1977. (95 p.) $2.00.

This manual is a complete organizing guide specifically focusing on teach-ins which bring up energy issues. It provides a very useful timeline section, followed by in-depth notes on each type of suggested activity. Examples from MASSPIRG publicity campaigns are given, including press releases, radio shows, television coverage,

and how to get petitions signed. There is a bibliography and a short directory of Federal agencies. Most of their organizing activities focused on the use of nuclear power, and the content of the book reflects those issues.

Order from: MASSPIRG, 233 N. Pleasant St., Amherst, MA 01002

Finding Funding for Local Energy Projects: A Neophyte's Guide. Citizens' Energy Project. Washington, D.C.: 1976. (10 p.) $2.50.

The material starts off with tips on how to select the best funding source for your particular project, and how to stay on top of getting an answer to your request once it has been submitted. The mimeographed packet describes a number of Federal funding sources and rquirements of specific programs they sponsor. It also gives a generic listing of possible sources of funds from other sources (e.g. state energy offices, park services, municipal utilities, and university programs).

Order from: Citizens' Energy Project, 1110 6th St. NW, #300 Washington, DC 20001

"Getting into Print." League of Women Voters. Washington, D.C.: 1974. (4 p.) $.25.

A how-to for writing a press release, holding a press conference, and ensuring press coverage for your group's activities.

Order from: League of Women Voters, 1730 M St. NW, Washington, DC 20036

Grand Junction Future Power. Chambliss, Barbe; Jenkins, Joyce. Denver, Colo.: ROMCOE; 1978. (59 p.) $3.75.

Grand Junction, Colo., was chosen as a rural-urban pilot community for the Future Power Program, whose purpose was to design and direct a program enabling communities to create their own energy futures. This report describes the activities of this program from June 1977 through March 1978 including 1) committee selection, 2) organization and planning of an energy seminar, and 3) organization and planning of an energy fair. Examples of letters, diagrams, and advertisements used in the project are reprinted. One major outgrowth of the Future Power Program was the establishment of the Grand Junction Public Energy Information Office.

Order from: ROMCOE, 1115 Grant St., Denver, CO 80203
Also: Policy

The Grass Roots Fundraising Book: How to Raise Money in Your Community. Flanagan, Joan. See **survivor's kit.**

Handbook of Special Events for Nonprofit Organizations: Tested Ideas for Fund Raising and Public Relations. Leibert, Edwin R.; Sheldon, Bernice E. Chicago, Ill.: Follett Publishing Co.; 1972. (224 p.) $13.

This practical guidebook will help volunteers learn the necessary steps and strategies to organize a successful event; aid staff members in using volunteer work to its fullest potential; and enhance the public relations, communications, and advertising experts' abilities to stage a special event. As a practical working guide, this volume includes stimulating ideas, checklists, case studies, and sample materials for the successful organization of staff and volunteers.

Order from: Follett Publishing Co., 1010 W. Washington Blvd., Chicago, IL 60607

How to Give an Attached Solar Greenhouse Construction Workshop. McPhee, Marnie; Johndahl, Craig; Youngbar, Lynn. Portland, Ore.: Portland Sun; 1979. (35 p.) $5.00.

After being trained by the New Mexico Solar Sustenance Team, Portland Sun began holding their own hands-on greenhouse construction workshops. This brief step-by-step manual describes the 2½ day workshop that they developed. Their workshop consists of an evening slide/lecture presentation followed by 2 days of construction in which an attached solar greenhouse is both built and planted. This is a very thorough yet concise and readable description of all the things that need to be done to pull off this activity from planning to followup. Checklist-like appendices include weekly activities to be carried out over the six weeks prior to the workshop; information packets for participants; materials list; participants' tool list; workshop coordinator's tool list; site survey questionnaire; a form for describing the completed greenhouse; and a packing list if you're going to be holding a workshop far from your homebase. Additional appendices provide a bibliography covering energy, construction and gardening aspects

of solar greenhouses, resource people throughout Oregon, and Oregon tax credit information.

Order from: Portland Sun, 3334 Southwest 1st Ave., Portland, OR 97201
Also: Greenhouses

Leadership is Everybody's Business: A Practical Guide for Volunteer Membership Groups. Lawson, John; Griffin, Leslie; Donant, Franklyn. San Luis Obispo, Calif.: Impact Publishers, Inc.; 1976. (217 p.) $5.25.

Filled with practical help for the new member, aspiring officer, and overloaded leaders, this book has become the basic guide for voluntary community groups, church programs, youth organizations, service clubs, and college and university activities programs. It includes handy, readable "how-to" methods for conducting meetings, creating agendas, preparing minutes, adding interest to your discussions and activities, developing effective committees, and overcoming group apathy and hesitation.

Order from: Impact Publishers, Inc., P.O. Box 1094, San Luis Obispo, CA 93406

Making Meetings Work: A Guide For Leaders and Group Members. Bradford, Leland P. La Jolla, Calif.: University Associates; 1976. (122 p.) $7.50.

Written for people who lead groups, conduct meetings, and plan and lead conferences, this guidebook illustrates a different approach to leadership that takes into account the needs and actions of individuals, the complexities of group behavior, and the problems inherent in reaching solutions and decisions. The text shows that knowledge of the complexities of group interaction and appreciation of the dynamics of leadership behavior can do much to improve productivity in group meetings, to ease the strain on leaders, and to lead to greater personal satisfaction and growth.

Order from: University Associates, 7596 Eads Ave., La Jolla, CA 92037

"Making Yourself Heard." Sandman, Peter. Washington, D.C.: *Environmental Action;* May 7, 1977, Vol. 9, No. 1. $.75.

This magazine article is a brief "quiz" on public relations strategy and tactics that will help you design effective publicity for your group.

Order from: Environmental Action, Inc., 731 Dupont Circle Building, Washington, DC 20036

Montclair Future Power: A Program to Enable a Community to Create Its Own Energy Future. ROMCOE. Denver, Colo.: 1978. (58 p.) $3.75.

Montclair, a middle-class urban neighborhood in metropolitan Denver, was chosen by ROMCOE to cosponsor the Future Power program. The purpose of the Future Power program was to enable communities to identify specific ways in which they can influence their own energy futures.
The report describes Montclair's implementation of Future Power in the community, including an energy fair, energy workshop, and school greenhouse construction project. The report includes a critique of the Future Power project in Montclair and an appendix which includes copies of flyers, questionnaires, newspaper articles, and schedules.

Order from: ROMCOE, 1115 Grant St., Denver, CO 80203

Planning, for a Change: A Citizen's Guide to Creative Planning and Program Development. Dale, Duane; Mitiguy, Nancy. Amherst, Mass.: Citizen Involvement Training Project; 1978. (88 p.) $5.00.

This manual helps you tackle the issue that every citizen group has to cope with: how to develop interesting and effective program ideas. Whether your "programs" consist of a series of speakers, fundraising events, community service projects, or social change campaigns, you'll find step-by-step procedures for analyzing your situation, generating program possibilities, building consensus, making program choices, time-lining, accountability, and evaluation.

Order from: The Citizen Involvement Training Project, Division of Continuing Education, 138 Hasbrouck, University of Massachusetts, Amherst, MA 01003

Preparing A Proposal for a Private Foundation: Some How-To-Do-It Suggestions. Bossong, Ken. Washington, D.C.: Citizens' Energy Project; 1978. (5 p.) $2.00.

This mimeographed information packet gives the basics on approaching foundations for funding. It also includes a list of foundations interested in energy issues.

Order from: Citizens' Energy Project, 1110 6th St. NW, #300, Washington, DC 20005

San Luis Future Power. Valdez, Maria; Valdez, Arnie. Denver, Colo.: ROMCOE; 1978. (40 p.) $3.75.

San Luis was chosen as the rural pilot community to represent the Future Power program's approach to energy problem-solving through community-initiated action. They held three "hands-on" workshops: 1) Solar Food Dryer, 2) A Solar Retrofit, and 3) Solar Water Heater. Manuals with photographs, blueprints, and step-by-step instructions were developed for the solar food dryer and the solar water heater. There was also a six-part classroom session on energy conservation and low technology solar power. Success can be measured by the number of solar units in the area: from eight, 2 years ago, to over 200 now.

Order From: ROMCOE, 1115 Grant St., Denver, CO 80203
Also: Solar (General)

$aving Home Energy: A Handbook for Organizing a Hands-On Energy Conservation and Passive Solar Energy Workshop. Snyder, Rachel, ed. Denver, Colo.: Colorado Solar Energy Association; 1977. (58 p.) $3.95 (handling and shipping .75).

This spiral-bound booklet documents the plans, program agenda, and activities the Colorado Solar Energy Association used in putting on its $aving Home Energy workshop in February 1977. Workshop planning focused on defining an audience, limiting the subject scope and organizing and assigning committee responsibilities. Samples of timetables, registration checklists, letters for support, financial contribution letters, registration forms, press releases, workshop questionnaires, post-conference evaluation forms, and letters to workshop instructors provide practical, helpful aids. It includes useful tips on acquiring financing, instructors, and publicity, and detailed descriptions of the four sessions.

Order from: Colorado Solar Energy Association, P.O. Box 5272, Denver, CO 80217
Also: Energy Conservation; Passive Solar

Some Organizing Strategies That Are Doable—More or Less. Bossong, Ken. Washington, D.C.: Citizens' Energy Project; 1978. (4 p.) $2.50.

This is a short and to-the-point listing of specific steps groups can take to exchange information and put on events with their members and other groups. It emphasizes reliance on locally based, low-cost ways of doing things.

Order from: Citizens' Energy Project, 1110 6th St. NW, #300, Washington, DC 20005

Something Old, Something New, Something Borrowed, Something Due. Smith, Judy. Butte, Mont.: National Center for Appropriate Technology (NCAT); 1978. (38 p.) $.75.

This book contains several short articles covering women and appropriate technology. Noting that women historically created appropriate technologies without receiving social validation for their efforts, the articles explore the role of women in the creation of alternative technological futures. The book contains a resource list of books and films on women's topics as well as a directory of some of the women involved in appropriate technology.

Order from: NCAT, P.O. Box 3838, Butte, MT 59701

Sources of Funds for Solar Activists. Gunn, Anita. Washington, D.C.: Solar Lobby; 1978. (32 p.) $2.50.

The first few pages gives tips on how to write proposals that will appeal to foundations and Federal agencies. Twenty-two Federal sources of funds are listed, both within the Department of Energy (DOE) and through other agencies. Special attention is given to preparing proposals for DOE.

Order from: Center for Renewable Resources, 1001 Connecticut Ave. NW, Fifth Floor, Washington, DC 20036

Free **So You Want to Have a Fair.** Moore, Gwendolyn B.; Koster, Francis P. Washington, D.C.: Center for Renewable Resources; 1978. (14 p.).

This excellent booklet provides guidance, rules of thumb and hints for a successful fair. Items covered include planning, staffing, financing, publicity, the fairgrounds site plan, set-up, clean-up, information booth, special considerations, entertainment, speakers, exhibitors, vendors, food, safety precautions, and security.

Order from: Center for Renewable Resources, 1001 Connecticut Ave. NW, Fifth Floor, Washington, DC 20036

Starting Your Own Energy Business. Bendavid-Val, Avrom; Habib, Victor. Washington, D.C.: Institute for Local Self-Reliance; 1978. (45 p.) $5.00.

Four industries (retrofit analysis service, storm windows and doors, cellulose insulation, and solar heated domestic hot water systems) are studied from the perspective of establishing small, local businesses to enhance community economic development. Information concentrates on background details of the industry; characteristics of existing market conditions; considerations in developing markets, general financial profiles, and analyses of plant, equipment, and labor needs; rather than step-by-step instructions on how to start a small business. Methods of acquiring capital are not included. "Helpful Lists" guide the reader to organizations and printed material for further information.

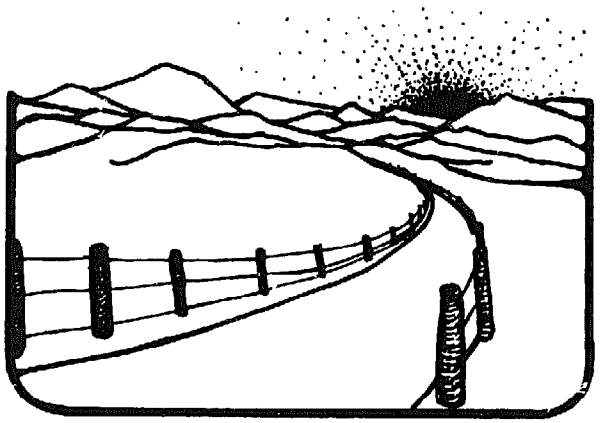
Order from: Institute for Local Self-Reliance, 1717 18th St. NW, Washington, DC 20009
Also: Domestic Hot Water; Energy Conservation

Sun Day Press Handbook... or...I Like Your Song-and-Dance, But Is It News? Sun Day. See **survivor's kit.**

Working Together: Group Process and Decision-Making. Giagi, Bob. Amherst, Mass.: Citizen Involvement Training Program; 1978. (124 p.) $5.00.

This is a do-it-yourself manual which includes a number of useful tools for understanding the interpersonal dynamics of your group and overcoming the obstacles to effective decisionmaking and collective action.

Order from: The Citizen Involvement Training Project, Division of Continuing Education, 138 Hasbrouck, University of Massachusetts, Amherst, MA 01003



Workshop Planner. Winterberger, Gwen. Boulder, Colo.: Volunteer-Center for Citizens Involvement; 1976. (44 p.) $3.00.

From assessment, budget, and content through 23 more topics all the way to Z for Zeal, this lively primer succinctly covers the practial essentials of workshop and conference planning. Simple control forms and reminder checklists are well-flavored with ingenious illustrations and cartoons.

Order from: Volunteer Readership, Volunteer-Center for Citizens Involvement, P.O. Box 1807, Boulder, CO 80306 (#A40)

The Wyoming Community Energy Handbook. Cheyenne, Wyo.: Wyoming Energy Conservation Office; 1979. (59 p.) $3.00.

This handbook shows Wyomingites how their communities can apply for a grant from the state to start a Community Energy Program. The book covers grant requirements for community energy councils, the request for start-up funds form, the first year program proposal form, how to survey the community, where to go for additional information and assistance, other energy programs in Wyoming, suggested awareness programs, and project examples.

Order from: Wyoming Energy Conservation Office, 320 W. 25th St., Cheyenne, WY 82002

newsletters/periodicals

Newsletters and magazines listed here are generally independent of a particular organization. Many of the groups listed in the following state and national rosters also provide periodicals with memberships or contributions.

Adobe News
Adobe News
Box 702
Los Lunas, NM 87031

Bimonthly, $8.00 per year

Magazine with in-depth articles and information on earthen-brick buildings; emphasis on providing shelter in the southwestern United States and desert regions

Alternative Sources of Energy
Alternative Sources of Energy, Inc.
Route 2, Box 90A
Milaca, MN 56353

Quarterly, $10 per year

Articles, columns, and features on many aspects of energy alternatives; serves as a clearinghouse for the exchange of ideas

Cascade
Cascade
454 Willamette, Box 1492
Eugene, OR 97401

Ten issues, $10 per year, free to community groups or co-ops in Pacific Northwest

A journal which provides information on alternative energy, food, gatherings and other aspects of community coordination

The Co-Evolution Quarterly
POINT
Box 428
Sausalito, CA 94965

Quarterly, $12 per year

Articles on building and using soft technology; 60 to 100 book reviews per issue

Earth Shelter Digest
WEBCO Publications
479 Fort Rd.
St. Paul, MN 55102

Bimonthly, $15 per year

Case studies and topical articles dealing with earth-sheltered homes; written for the layperson with enough technical information to be useful for builders and architects

Energy Report to the States
Energy Policy Project
National Conference of State Legislatures
1405 Curtis St., 23rd Floor
Denver, CO 80202

Biweekly, $15 per year, free to state legislators and staff

Newsletter, provides updates and analyses of state energy legislation activities

Energy Review
UPDATA Publications, Inc.
1756 Westwood Blvd.
Los Angeles, CA 90024

Bimonthly, $55 per year

Journal, provides summaries of books, reports, articles, conferences, grants, and audiovisual materials in all areas of energy

Grants Newsletter
California Office of Appropriate Technology
1530 10th St.
Sacramento, CA 95814

Quarterly, free

A reveiw of current sources of funding for appropriate technologists; timely and reliable

High Country News
High Country News
Box K
Lander, WY 82520

Biweekly, $10 per year

An environmentally oriented newspaper which covers the Rockies and Northern Plains; reports on the people of the region, natural history, conservation, the rush for Western coal, solar power, agriculture, and changing land use patterns

Mother Earth News
Mother Earth News, Inc.
105 Stoney Mountain Rd.
Hendersonville, NC 28739

Bimonthly, $10 per year

Magazine presenting down-to-earth descriptions of people's experiences with alternative lifestyles, ecology, and energy; an excellent source for what is happening at the grassroots level

The Neighborhood Works
Center for Neighborhood Technology
570 W. Randolph St.
Chicago, IL 60606

Biweekly, $25 per year for individuals and non-profit groups, $40 per year for government organizations and libraries

Covers community development and self-reliance from the perspective of an urban neighborhood; issues addressed include energy conservation, alternative energy, and co-ops

New Alchemy Newsletter
New Alchemy Institute
Box 47
Woods Hole, MA 02543

Quarterly, $25 per year for membership

Newsletter for members only, covers all aspects of the research carried out at the Institute; topics addressed include agriculture, aquaculture, and bio-shelters

New Roots
New England Appropriate Technology Network, Inc.
P.O. Box 548
Greenfield, MA 01301

Bimonthly, $8.00 per year for individuals, $12 per year for institutions

Covers the movement toward self-reliance in the Northeast; topics covered include aquaculture, waste recycling, food co-ops, and appropriate technology

Outlook
Outlook/Governor's State University
Park Forest South, IL 60466

Ten issues, $6.00 per year for individuals, $12 per year for institutions

Formerly *Acorn*, covers small-scale technology and self-reliance; includes nontechnical news on local projects and people

People and Energy
Institute for Ecological Policies
2408 18th St. NW
Washington, DC 20009

Monthly, $12 per year

Covers citizen action on energy

Popular Science
Times Mirror Magazines, Inc.
380 Madison Ave.
New York, NY 10017

Monthly, $9.94 per year

Magazine covering automobiles, homes, new products, and do-it-yourself solar projects; includes a section on energy news

RAIN
RAIN
2270 N.W. Irving St.
Portland, OR 97210

Monthly, $10 per year

Articles on appropriate technology, excellent book reviews

Science
American Association for the Advancement of Science (AAAS)
1515 Massachusetts Ave. NW
Washington, DC 20005

Weekly, $65 per year

Official publication of the AAAS, for scientists across a broad span of disciplines; covers current scientific research results

Small Farm Energy Project Newsletter
Center for Rural Affairs
P.O. Box 736
Hartington, NE 68739

Bimonthly, free

Provides information for farms on renewable energy sources such as organic farming, waste recycling, composting, energy conservation, wind, solar, and biofuels; reports on project progress

Solar Age
Solar Vision, Inc.
Church Hill
Harrisville, NH 03450

Monthly, $20 per year

The official publication of the American Section of the International Solar Energy Society; it has well-written articles, reviews, interviews, and news on solar energy and related topics

Solar Energy Digest
Solar Energy Digest
P.O. Box 17776
San Diego, CA 92110

Monthly, $30.50 per year

Covers, in non-technical terms, new developments in solar energy

Solar Engineering
Solar Engineering Publishers, Inc.
8435 N. Stemmons Freeway
Suite 880
Dallas, TX 75247

Monthly, $15 per year

Official magazine of the Solar Energy Industries Association; emphasizes the technical aspects of solar energy

Solar Greenhouse Digest
Solar Greenhouse Digest
P.O. Box 2626
Flagstaff, AZ 86003

Bimonthly, $7.00 per year

An international look at greenhouses, attached and unattached, for heat and food production; features articles on other alternatives as well

Solar Utilization News
Alternate Energy Institute
P.O. Box 3100
Estes Park, CO 80517

Monthly, $8.00 per year for individuals, $15 per year for libraries

Solar information presented geographically to make it easy for you to reference your area; coverage includes solar projects, government research, and legislation

Sun Times
Solar Lobby
1001 Connecticut Ave., Fifth Floor
Washington, DC 20036

Monthly, $15 per year

A good up-to-the-minute report on policy, legislative, funding, and grassroots happenings around the country

TRANET
Transitional Network for Appropriate/ Alternative Technologies (TRANET)
P.O. Box 567
Ranseley, ME 04970

Quarterly, $15 per year for membership

Distributed to members of TRANET, promotes appropriate technology and networking

Ways and Means
Conference on Alternative Public Policy
1901 Q St. NW
Washington, DC 20009

Bimonthly, $10 per year for individuals, $20 per year for institutions

Newsletter written for state and local public officials and community organizers; includes articles about what local governments and organizations are doing in the areas of agriculture, women and the economy, co-op banks, energy, pension rights, and tax reform

Wind Letter
American Wind Energy Association (AWEA)
1621 Connecticut Ave. NW
Washington, DC 20009

Bimonthly, $25 per year for membership

The newsletter of the American Wind Energy Association

Wind Power Digest
Wind Power Digest
54468 CR 31
Bristol, IN 46507

Quarterly, $6.00 per year

Provides coverage of the latest developments in wind energy for consumers and businesses through articles, interviews, and reviews; *Wind Power Access Catalog* is an annual supplement

Woodburning Quarterly and Home Energy Digest
Woodburning Quarterly and Home Energy Digest
Division of Investment Rarities, Inc.
8009 34th Ave.
South Minneapolis, MN 55420

Quarterly, $6.00 per year

Information on wood, fireplaces, woodburning stoves, chain saws, and household energy use

Wood 'n Energy
Wood 'n Energy
5 S. State St.
Concord, NH 03301

Quarterly, $5.00 per year

Newsletter discussing wood and its by-products (sawdust, wood chips) as a source of heating; includes information on stoves

sources of bulk information

A number of organizations specialize in providing information in large quantities for use at conferences, workshops, seminars or fairs. Much of the information is free or inexpensive and lends itself to resale as a part of fundraising efforts.

In addition to the sources listed here, most state energy offices carry large quantities of free or inexpensive information for groups in their states—check yours before investigating sources outside your area.

A number of the sources listed here are described in more detail in the **national organizations** or **federal agencies** sections.

Center for Renewable Resources (CRR)—1001 Connecticut Ave. NW, Fifth Floor, Washington, DC 20036 (202) 466-6350

How to order: Call or write the above address for a free listing of publications and "sundries" for sale. A 20 percent discount is provided for orders over 10 copies; 30 percent discount on orders over 50 copies.

Areas of interest: Solar, wind, hydropower, biomass

Typical publications: *Blueprint for a Solar America* ($2.00), *Sources of Funds for Solar Activists* ($2.50), *Solar Education Package* ($3.75), *Solar Bibliography* ($2.50); sundries include bumper stickers, T-shirts, buttons, and posters

Citizens' Energy Project— 1110 6th St. NW, #300, Washington, DC 20001 (202) 387-8998

How to order: Send a stamped self-addressed envelope for a free catalog which lists about 50 publications. Many reports are under $1.00. A 30 percent discount is provided for orders of over 20 copies of reports up to 20 pages long. For orders of over 20 copies of reports longer than 20 pages, a 20 percent discount is provided.

Areas of interest: Alternative energy, community economic development, anti-nuclear research, appropriate technology

Typical publications: *Gasohol* ($1.25), *Homeowners Guide to Passive Solar* ($1.60), *How to Apply to a Foundation* ($.60), *Appropriate Technology Resources* ($.70), *The Hazards of Solar Energy* ($1.00); most of the short reports available were authored by the Citizens' Energy Project; they also distribute a select group of reports by other authors

Consumer Information Center—Pueblo, CO 81009

How to order: Write to the above address. Send for the next free issue of *The Consumer Information Catalog.*

Areas of interest: Since 1970, has published the quarterly Consumer Information Catalog (free); lists 200 consumer publications, some free

Typical publications:*Buying Solar* (114E, $1.85), *Solar Energy and Your Home* (646E, free), *How to Get a Patent* (126E, $.75)

U.S. Department of Energy (DOE) Technical Information Center (TIC)—P.O. Box 62, Oak Ridge, TN 37830

How to order: Write to the above address for publications list. Free, bulk quantities of general interest pamphlets and brochures are available.

Areas of interest: All areas of energy and energy conservation

Typical publications: *Put the Sun to Work; Where to Find Information on Solar; Solar Energy; Photovoltaic Conversion;* fact sheets produced by The National Science Teachers Association (NSTA) on solar and energy conservation; fact sheets on aspects of energy conservation including insulation, lighting, and window materials

Environmental Action Coalition—235 E. 49th St., New York, NY 10017 (212) 929-8481

How to order: Send a stamped self-addressed business envelope to the above address for price information and publications descriptions.

Areas of interest: All aspects of energy

Typical publications: *Eco-News,* a children's newsletter; specializes in educational packets, newsletters, films

Environmental Action Reprint Service (EARS)—Box 545, La Veta, CO 81005 (303) 742-3221

How to order: Write to the above address and request a free EARS catalog and order form. Ordering can be done by phone, mail, VISA, or Master Charge.

Areas of interest: Alternative energy sources, general solar, solar architecture, technical and engineering, self-help construction, underground architecture, energy conservation, solar energy plans, solar greenhouses, energy policy, solar directories, teaching materials, solar cells, windpower, methane generation, water power, wood energy, appropriate technology, cooperative self-reliance, food policy, gardening, visions of the future, utilities, solar graphics; lists approximately 300 publications

Typical publications: *Soft Energy Paths,* by Amory Lovins; *Natural Solar Architecture,* by David Wright; *The Passive Solar Energy Book,* by Edward Mazria; short reprints of articles such as *The Worldwatch Papers,* which analyze global problems

League of Women Voters (LWV)—1730 M St. NW, Washington, DC 20036 (202) 296-1770

How to order: Write to the above address or contact your state LWV office. These offices are in all 50 states, Puerto Rico, and the Virgin Islands. A list of state league addresses is available from the national office on request.

Areas of interest: Organizing, energy

Typical publications: *Energy Dilemmas; Energy Options* (both at $1.00 for single copy, $.60 per copy for quantities of 50 or more), *How To Plan An Environmental Conference* (#695, $.50), *How To Produce A Slide Show* (#296, $.30), *Setting Up a Speakers Bureau* (#299, $.15), *Getting Into Print* (#484, $.25);energy fact sheets, a series of briefs aimed at helping readers discuss energy problems

National Center for Appropriate Technology (NCAT)—P.O. Box 3838, Butte, MT 59701 (406) 494-4577

How to order: Write to the above address and request a publications bibliography.

Areas of interest: Appropriate technology, economic development, energy conservation, community gardens, wind

Typical publications: Bibliographies and short reports ranging in price from $.05 to $.25 each; short, annotated bibliographies on organizing community gardens, economic development, alternative waste systems, solar, wind, building and energy, and methane; short reports on furnace efficiency, thermostat control timers, heating with wood, and how to build a solar heating system

National Council of Churches Energy Project—475 Riverside Dr., Room 572, New York, NY 10027 (212) 870-2385

How to order: Write to the above address. All publications are sold at reduced prices for orders over 25.

Areas of interest: Social and economic implications of energy

Typical publications: *Energy and Ethics* ($1.00), *The Energy Suppliers* ($1.00), *Energy and the New Poverty* ($1.00), *The Social Cost of Energy Choices* ($.90)

National Solar Heating and Cooling Information Center (NSHCIC)—P.O. Box 1607, Rockville, MD 20850, toll-free (800) 523-2929; in Pennsylvania (800) 462-4983; in Hawaii (800) 523-4700; in Alaska (800) 523-4701

How to order: Call or write above address for single or bulk copies of free information.

Areas of interest: Residential and commercial solar heating and cooling applications and electric power (See full listing under **federal agencies.**)

Typical publications: *Solar Hot Water and Your Home, Practical and Do-It-Yourself Projects, Solar Greenhouses, List of Plans,* fact sheets, data compilations, bibliographies, technical reports, climatic information

National Technical Information Service (NTIS)—5285 Port Royal Rd., Springfield, VA 22161

How to order: Send for the free *NTIS Energy Catalog* (NTIS-PR-378). Write to NTIS at above address for mail service completed within 9 to 30 days. For customers with deposit accounts or American Express cards, requiring service within four to nine days, call (703) 557-4970. Telephone customers must have order number and pay $3.50 per item in addition to cost of item. Write to above address or call (202) 724-3509 or (703) 557-4650 for more information. Computerized information searches of the 500,000 reports are available for a fee; call (703) 557-4642.

Areas of interest: U.S. and foreign government sponsored research and development, engineering reports, and analyses

Typical publications: *U.S. Government Patent Portfolio Listing* (PB-251-250/PTC), lists 16,000 government-owned patents available for licensing; the monthly *Solar Energy Update* (NTISUB/C/145/PTC); *An Inexpensive Economical Solar Heating System for Homes* (N76-27671/PTC); Landsat satellite photos

Northeast Solar Energy Center (NESEC)—70 Memorial Dr., Cambridge, MA 02142 (617) 661-3500

How to order: Write to the above address. The center serves only the northeastern states.

Areas of interest: Solar energy

Typical publications: *Solar Greenhouses, NESEC Update* (monthly newsletter), *NESEC Focus, Barriers and Incentives to Solar Energy Development,* brochures, fact sheets, pamphlets

Solar Energy Research Institute (SERI)—Document Distribution Service, 1536 Cole Blvd., Golden, CO 80401 (303) 231-1000

How to order: Write to the above address and request the *Publications Bulletin* on one or all of the following topics: technical reports, papers and presentations, solar awareness products. The bulletins provide all the ordering information. Due to supply limitations and the desire to serve the widest segment of the solar community, the Document Distribution Service may limit the number of copies available.

Areas of interest: Active solar heating and cooling, passive technology, industrial process heat, solar thermal, biomass, photovoltaics, economics, environmental considerations, policy, commercialization, models, standards, simulations, measurements

Typical publications: *Solar Energy Information Locator; Solar Technologies: An Overview; Putting the Sun to Work for Industry; Analysis Methods for Solar Heating and Cooling Applications; Biomass: Solar Energy from Farms and Forests;* papers, presentations and journal articles delivered by members of the SERI staff; SERI technical reports

Superintendent of Documents—U.S. Government Printing Office, Washington, DC 20402 (202) 275-2051

How to order: Write to the above address for the free solar energy bibliography. GPO bookstores, located in major cities, carry most of the more popular titles. Regional GPO depository libraries have one copy of each GPO publication available for viewing.

Areas of interest: 25,000 titles published for the Federal Government by the Government Printing Office (GPO)

Typical publications: General interest books, maps, pamphlets, subscriptions (free); *Selected U.S. Government Publications*—lists 150-200 popular publications for sale; *Solar Energy*—Bibliography No. 9; *Solar Heating and Cooling, An Economic Assessment* (NS1.2:SO); *Solar Dwelling Design Concepts* (HH1.2:SO); *Energy Abstracts for Policy Analysis* (monthly—#ER1.9); *Energy Research and Development Inventory* (5 volumes—#Y4.SC12:94-2/u)

organization directories

Various specialized directories highlighting networks of people and organizations in the solar and energy conservation information field have been compiled. They may be useful in focusing on nearby groups or individuals particularly well-suited to your needs and activities. Often, membership rosters of solar energy or environmental associations provide an even more detailed look at a particular community or region.

Appropriate Technology—A Directory of Activities and Projects. Integrative Design Associates, Inc. Washington, D.C.: U.S. Government Printing Office; 1977. (66 p.) $2.20.

The first chapter provides an annotated directory which includes listings of energy and housing activities, bio-agricultural activities, community organizing groups, international appropriate technology (AT) groups; all listings include individuals, organizations, and information sources. The second chapter includes major concerns of innovators, individuals, local community organizations, and small businesses regarding their own AT goals, obstacles, and participation in government programs. The third chapter provides a short list of governmental and non-governmental resource groups in the Washington, D.C., area. The fourth chapter is an annotated AT bibliography. All information was obtained as part of a survey conducted by the National Science Foundation (NSF).

Order from: Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402

A Directory of Federal Sources of Information on Solar Energy. Dierker, Janet. Washington, D.C.: Center for Renewable Resources; 1978. (16 p.) $2.50.

This is primarily a listing of Federal agencies with names of particular people to contact about specific kinds of solar information, programs, and projects.

Order from: Center for Renewable Resources, 1001 Connecticut Ave. NW, Fifth Floor, Washington, DC 20036

Informal Directory of the Organizations and People Involved in the Solar Heating of Buildings. Shurcliff, William A. Cambridge, Mass.: 1977. (243 p.) $10.

The directory includes hundreds of names of people and organizations, in the United States and in other countries, involved in any significant way in the solar heating of buildings. Government agencies, commercial enterprises, universities, solar societies, foundations, architects, engineers, and homeowners are all included. The directory is very broad and contains lots of information, yet much of it is now outdated.

Order from: William A. Shurcliff, 19 Appleton St., Cambridge, MA 02138

Free **1978 Directory of New England Energy Information Sources.** Federal Regional Council of New England. Boston, Mass.: 1978. (44 p.).

The directory includes national, regional, and state energy information sources. The state sources include state offices, community action agencies, area agencies on aging, cooperative extension services, some libraries, and, in Vermont, town energy coordinators.

Order from: Federal Regional Council of New England, John F. Kennedy Federal Building, Room E-431, Boston, MA 02203

Free **Solar Energy Information Locator.** Golden, Colo.: Solar Energy Research Institute; 1978. (31 p.).

The Solar Energy Information Data Bank (SEIDB) has compiled a list of general sources of solar energy information. Organizations included are primarily concerned with solar technology; many provide free services. Each entry gives name, address, telephone, areas of interest, holdings, publications, and information services. State energy offices are listed. Libraries with the Department of Energy report collections and U.S. Government Depository Libraries are listed. A compilation of major solar energy journals includes brief annotations.

Order from: Solar Energy Information Locator, Document Distribution Service, SERI, 1536 Cole Blvd., Golden, CO 80401

state organizations

alabama

Alabama Energy Extension Service—c/o Dr. John Hoyle, Energy Extension Service, Mechanical Engineering Department, Auburn University, Auburn, AL 36830 (205) 826-4718

Alabama Energy Management Board—3734 Atlanta Highway, Montgomery, AL 36130 (205) 832-5010

Alabama Solar Energy Association—Johnson Environmental & Energy Studies Center, University of Alabama at Huntsville, P.O. Box 1247, Huntsville, AL 35807 (no phone)

Technical society; sponsors programs for its membership

Elmore Community Action Committee—P.O. Drawer H, Wetumpka, AL 36092 (205) 567-4361

Energy, senior opportunities, headstart program, community outreach, youth, transportation programs

Solar Energy Center—Johnson Environmental & Energy Studies Center, University of Alabama at Huntsville, P.O. Box 1247, Huntsville, AL 35807 (205) 895-6361

State-funded source for solar energy information

Solar Energy Coalition—P.O. Box 163, Coaling, AL 35449 (205) 348-4600

alaska

Alaska Center for the Environment—1069 W. 6th Ave., Anchorage, AK 99501 (907) 274-3621

Alternative energies, arctic solar applications, energy resource library

Alaska State Energy Office, Division of Power and Energy—Mackay Building, 7th Floor, 338 Denali St., Anchorage, AK 99501 (907) 272-0527

Energy conservation and education

Fairbanks Environmental Center—431 Steese, Fairbanks, AK 99701 (907) 452-5021

Energy issues, alternative energies for Alaska

Office of Northern Technology—Pouch AD, Juneau, AK 99811 (907) 465-3577

Northern applications of appropriate technology

american samoa

Territorial Energy Office—American Samoa Government, Pago Pago, American Samoa, 97799, overseas operator 633-4166

arizona

Arizona Solar Energy Association (ASEA)— College of Architecture, Arizona State Univerity, Tempe, AZ 85281 (602) 968-7173

Arizona Solar Energy Commission—1700 W. Washington, Room 502, Phoenix, AZ 85007 (602) 271-3682

Solar Action Team—224 S. Leroux St., Flagstaff, AZ 86001 (602) 774-3252

Workshops, low-cost solar applications, greenhouses

arkansas

Arkansas Community Organizations for Reform Now (ACORN)—523 W. 15th St., Little Rock, AR 72202 (501) 376-7151

Community organizing, utility rate intervention, tax equalization, neighborhood issues

Arkansas Consumer Research—1852 Cross St., Little Rock, AR 72206 (501) 374-2394

Utilities, energy, health care, public policy, citizen participation

Arkansas Solar Energy Coalition—1145 W. Hearn St., Blytheville, AR 72315 (501) 762-2769

Arkansas State Energy Office—960 Plaza West Building, Little Rock, AR 72205 (501) 371-1379

N.E. Arkansas Citizens Committee—1145 W. Hearn St., Blytheville, AR 72315 (501) 762-2769

Gas and electric utilities intervention

california

Alternative Consumer Energy Society (ACES)—c/o Dick Baugh, Jet Propulsion Lab, MS-138-310, 4800 Oak Grove Dr., Pasadena, CA 91003 (213) 345-3684

Berkeley Alternative Energy Co-operative—2600 Dwight Way, Room 204, Berkeley, CA 94704 (415) 849-3816

Berkeley Solar Group—3026 Shattuck Ave., Berkeley, CA 94705 (415) 843-7600

Passive design; authored *Solar For Your Present Home*

California Citizen Action Group (CalCAG)—909 12th St., Sacramento, CA 95814 (916) 446-4931

Energy, food marketing regulations, public participation in government, regulatory reform

California Energy Commission—1111 Howe Ave., Sacramento, CA 95825; public information (916) 920-6430; publications (916) 920-6216; in California, toll-free (800) 852-7516

California Public Policy Center—304 S. Broadway, #224, Los Angeles, CA 90013 (213) 628-8888

Citizen input into California's energy plan; active involvement in solar/utilities issues

California Solar Action Network, The Sun Fund—P.O. Box 563, Davis, CA 95616 (916) 758-1847

A coalition of community and state grass-roots organizations; information and resource referrals, public education

California Solar Energy Industries Association—926 J St., Sacramento, CA 95814 (916) 443-1877

Coalition for Economic Survival—5520 W. Pico Blvd., Los Angeles, CA 90019 (213) 938-6241

Tenants rights, mass transit, utilities, full employment

Community Economic, Inc.—6529 Telegraph Ave., Oakland, CA 94609 (415) 653-6555

Limited equity, cooperatives, housing, utilities, rural economic issues

Community Environmental Council of Santa Barbara—924 Anacapa, Suite B-4, Santa Barbara, CA 93101 (805) 962-2210

Appropriate agricultural techniques, solar, resource recycling centers

Consumer Action—26-7th St., San Francisco, CA 94103 (415) 626-4030

Complaint resolution, solar energy

Earthmind—4844 Hirsch Rd., Mariposa, CA 95338 (no phone)

Research, education, books on alternative energy sources

Ecology Action—2635 Service Rd., Ceres, CA 95307 (209) 538-1689

Information on both nuclear power and alternative sources of energy; recycling center

Ecology Center of Southern California—Box 24388, Los Angeles, CA 90024 (213) 559-9160

Environmental Action Clearinghouse—5080 Building 312, Fort Mason, San Francisco, CA 94123 (415) 474-5080

Environmental Center of San Luis Obispo County—P.O. Box 1014, San Luis Obispo, CA 93406 (no phone)

Environmental Information Center—Building U, San Jose State University, San Jose, CA 95192 (408) 277-2852

Farallones Institute—Rural site: 15290 Coleman Valley Rd., Occidental, CA 95465 (707) 874-3060; Integral Urban House: 1516 5th St., Berkeley, CA 94710 (415) 525-3795

Appropriate technology, composting toilets, greywater, small scale waste systems

Fort Mason Foundation—Laguna and Marina Blvds., San Francisco, CA 94123 (415) 441-5705

The Habitat Center—573 Mission St., San Francisco, CA 94105 (415) 543-1294

Passive solar home design class, hot water and solar greenhouse workshops, professional design of passive solar homes

Helion, Inc.—P.O. Box 455, Brownsville, CA 95919 (916) 675-2478

Intermediate Technology—556 Santa Cruz Ave., Menlo Park, CA 94025 (415) 328-1730

Quarterly magazine: *Intermediate Technology Report*

Kern Solar Energy Society—P.O. Box 770, Bakersfield, CA 93302 (no phone)

Living Systems—Route 1, Box 170, Winters, CA 95694 (916) 795-2111 or 753-3033

Neighborhood planning, passive home and business design, solar energy research

Marin Citizens for Energy Planning—80 Lomita Dr., Mill Valley, CA 94941 (415) 383-4231

Municipal energy legislation, recycling, solar greenhouse construction, conservation, retrofits, education and advocacy

Midpeninsula Conversion Project—867 W. Dana, Suite 203, Mountain View, CA 94041 (415) 968-8798

Authored *Creating Solar Jobs: Options for Military Workers and Communities*

Net Energy—630 9th St., Arcata, CA 95521 (707) 822-5421

Weatherization, community education, commercial solar greenhouse project

North Coast Environmental Center—1091 H St., Arcata, CA 95521 (707) 822-6918

Northern California Solar Energy Association—P.O. Box 1056, Mountain View, CA 94042 (no phone)

North Valley Center of Appropriate Technology—539 Flume St., Suite 2, Chico, CA 95927 (916) 895-3558

Office of Appropriate Technology (OAT)—1530 10th St., Sacramento, CA 95814 (916) 445-1803

Research library open to the public

People's Lobby—3456 W. Olympic Blvd., Los Angeles, CA 90019 (213) 731-8321

Political and tax reform, environment, utilities

Portola Institute—558 Santa Cruz Ave., Menlo Park, CA 94025 (415) 323-5155

Renewable energy

Proteus—319 N. Harris St., Hanford, CA 93230 (209) 582-9253

Solar training program for individuals with farm backgrounds

Public Media Center—2751 Hyde St., San Francisco, CA 94109 (415) 885-0200

Utilities, nuclear energy, solar energy, radio and TV public service campaigns

San Bernardino Westside Community Development Corp.—1736 W. Highland Ave., San Bernardino, CA 92411 (714) 887-2546

Training, solar energy, rehabing homes

San Diego Ecology Center—340 Kalmia St., San Diego, CA 92101 (714) 235-0066

San Joaquin Solar Energy Association—c/o Jeff Dwelle, 3733 E. Iowa Ave., Fresno, CA 93702 (no phone)

Santa Clara Office of Appropriate Technology—P.O. Box 5651, San Jose, CA 95150 (408) 277-3032

Santa Cruz Alternative Energy Co-operative—328-A Ingalls, Santa Cruz, CA 95060 (408) 426-1299

Solarcal Office—Business and Transportation Agency, 921 10th St., Sacramento, CA 95814 (916) 445-0970

Business development, solar industry; does not provide general information

Solar Energy Advocates—P.O. Box 876, Sacramento, CA 95815 (916) 446-2012

Solar Utilization Now for Resources and Employment (SUNRAE)—P.O. Box 915, Goleta, CA 93017 (916) 448-1198

Workshops, speakers, lobbying, publishes newsletter; offices in San Francisco, San Diego, Santa Barbara, and Sacramento

Southern California Solar Energy Association—City Administration Building 11-B, 202 C St., San Diego, CA 92101 (714) 236-0432

Toward Utility Rate Normalization (TURN)—693 Mission St., Eighth Floor, San Francisco, CA 94105 (415) 543-1576

Utility intervention, rate reform

Western SUN, California Office—c/o Larry Levin, 921 10th St., Sacramento, CA 95814 (916) 323-0259

Local government participation

Winds of Change—433 Russell Blvd., Davis, CA 99616 (no phone)

Alternative technology network

colorado

Boulder Energy Center—929 Pearl St., Boulder, CO 80302 (303) 443-8942

Boulder Solar Energy Society—P.O. Box 3431, Boulder, CO 80303 (no phone)

Colorado Coalition for Full Employment—2239 E. Colfax, Denver, CO 80206 (303) 355-3554

Employment, alternative energy

Colorado Energy Research Institute—2221 East St., Golden, CO 80401 (303) 279-2881

Colorado Office of Energy Conservation—1600 Downing St., Second Floor, Denver, CO 80218 (303) 839-2507

Conservation and solar energy information

Colorado Solar Energy Association—P.O. Box 5272, Denver, CO 80217; Solar Bookstore, 2239 E. Colfax Ave., Denver, CO 80206 (303) 321-1645

Colorado Utilities Task Force (CUT)—431 W. Colfax, Suite 2-A, Denver, CO 80204 (303) 629-0152

Utility rate structure and reform

Delta County Solar Energy Association—P.O. Box 251, Paonia, CO 81428

Domestic Technology Institute—P.O. Box 2043, Evergreen, CO 80439 (303) 674-1597

Environmental Action Reprint Service (EARS)—P.O. Box 545, LaVeta, CO 81055 (303) 742-3221

See detailed entry under **sources of bulk information.**

Future Power at San Luis

See **People's Alternative Energy Services**

Grand Junction Public Energy Information Office—250 N. 5th St., Grand Junction, CO 81501 (303) 243-2633 Ext. 204

Grand Junction Solar Energy Society—c/o Grand Junction Public Energy Information Office, 250 N. 5th St., Grand Junction, CO 80501 (303) 234-2633 Ext. 204

Hidden World Marionettes—P.O. Box 516, Niwot, CO 80544 (303) 652-2546

Marionette version of *The Best Present of All;* tours mostly in the western United States

Huajatolla Primal Energy Association—c/o Robert W. Johnson, P.O. Box 422, LaVeta, CO 81055 (no phone)

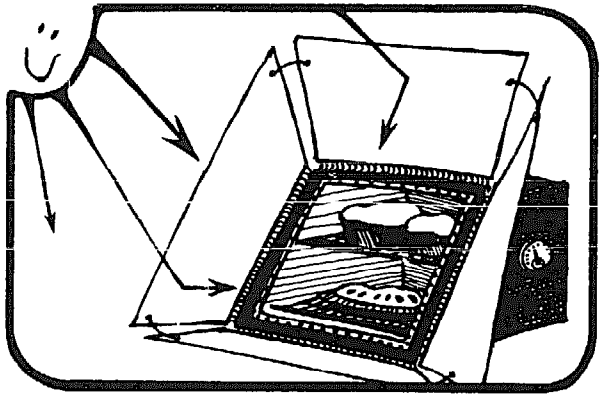
Mountain Plains Congress of Senior Organizations—820 16th St., #617, Denver, CO 80202 (303) 629-7270

Utilities issues, lifeline, generic drugs, rural housing

Paonia Solar Energy Association—c/o Ed Overfield, Route 1, Box 49A, Paonia, CO 81428 (303) 527-3274

People's Alternative Energy Services—Route 1, Box 3A, San Luis, CO 81152 (no phone); leave messages at (303) 672-3602

Solar, appropriate technology, design and construction workshops



Pikes Peak Solar Energy Association—P.O. Box 15321, colorado Springs, CO 80910 (no phone)

Pueblo Solar Energy Association—c/o Lane Maxwell, 4303 Rawhide Rd., Pueblo, CO 81008 (303) 545-5660 Ext. 231

Regional Energy/Environment Information Center—Denver Public Library, 1357 Broadway, Denver, CO 80203 (303) 837-5994

Solar and conservation information and referrals (People in Federal Region VIII can call collect.)

Roaring Fork Resource Center (RFRC)—P.O. Box 9950, Aspen, CO 81611 (303) 925-8885

ROMCOE-Center for Environmental Problem Solving—1115 Grant St., Denver, CO 80203 (303) 861-1260

Environmental planning, education; publishes *Romcoe Forum*

San Luis Valley Energy Center—512 Ross St., Alamosa, CO 81101 (303) 589-2233

San Luis Valley Solar Energy Association (SLVSEA)—P.O. Box 1284, Alamosa, CO 81101 (303) 589-2233

Solar Energy Association of Northeastern Colorado (SEANEC)—P.O. Box 307, Eaton, CO 80615 (303) 454-3618, or 353-8008 Ext. 387

Sun San Juan Solar Energy Society—P.O. Box 435, Durango, CO 81301 (303) 259-0615

Western Slope Energy Research Center (WSERC)P.O. Box 746, Hotchkiss, CO 81419 (303) 872-3902

connecticut

Connecticut Citizen Action Group (CCAG)—130 Washington St., Box G, Hartford, CT 06106 (203) 527-7191

Connecticut Office of Policy and Management, Energy Division—80 Washington St., Hartford, CT 06115; energy information (203) 566-2800; solar information (203) 566-3394

Connecticut Solar Coalition—c/o CCAG, 130 Washington St., Box G, Hartford, CT 06106 (203) 527-7191

Energy Extension Service—Office of Policy and Management, 80 Washington St., Hartford, CT 06115 (203) 566-7038

New Opportunities for Waterbury—232 N. Elm, Waterbury, CT 06702 (203) 757-1241

Winterization, utilities

Peoples Action for Clean Energy— P.O. Box 563, Middletown, CT 06457 (no phone)

Solar Energy Association of Connecticut—Box 541, Hartford, CT 06101 (203) 649-9122

delaware

Citizens Coalition for Tax Reform—1225 Lakewood Dr., Wilmington, DE 19803 (302) 762-0449

Tax reform, utilities, public power

Delawareans for Energy Conservation—111 Rodney Rd., Dover, DE 19901 (302) 678-3160

Energy conservation

Delaware Energy Office—114 W. Water St., P.O. Box 1401, Dover, DE 19901 (302) 678-5644

The Delaware Nature Education Society—P.O. Box 700, Hockessin, DE 19707 (302) 239-2334

Workshops and conferences, lobbying, energy conservation

Wilmington United Neighborhoods—1300 N. Broom, Wilmington, DE 19806 (302) 655-3338

Coalition of neighborhood organizations; utilities, lifeline, generic drugs, community organizing

district of columbia

Center for Science in the Public Interest—1755 S St. NW, Washington, DC 20009 (202) 332-9110

Food and nutrition, industry and government regulation of food

Citizens' Energy Project—1110 6th St. NW, #300, Washington, DC 20001 (202) 387-8998

See detailed entry under **sources of bulk information.**

Clearinghouse for Community Based Free Standing Educational Institutions—1806 Vernon St. NW, Washington, DC 20009 (202) 462-6333

Commission for the Advancement of Public Interest Organizations—1875 Connecticut Ave. NW, Suite 1013, Washington, DC 20009 (202) 462-0505

Coalition-building; authored *A Citizen's Guide to Public Interest Periodicals*

Concern, Inc.—2233 Wisconsin Ave. NW, Washington, DC 20007 (202) 965-0066

Energy conservation, energy alternatives, environmental hazards, urban conservation

Conference on Alternative State/Local Public Policy—1901 Q St. NW, Washington, DC 20009 (202) 234-9382

Tax reform, economic development, women and energy; publishes *Ways and Means*

Conservation Education Association—Environmental Education Branch, Forest Service, USDA, Room 3233, South Agricultural Building, Washington, DC 20013 (202) 447-6605

Conservation education, newsletter

Conservation Foundation—1717 Massachussetts Ave. NW, Washington, DC 20036 (202) 797-4300

Energy, policy research, public education; publishes *Conservation Foundation Newsletter*

Consumer Energy Council of America—1990 M St. NW, Washington, DC 20036 (202) 659-0404

Energy information

D.C. Solar Coalition—1717 18th St. NW, Washington, DC 20009 (202) 232-4108

Environmental Action Foundation—724 Dupont Circle Building, Washington, DC 20036 (202) 659-9682

Utility rates, conservation, environmental education; publishes *The Power Line* (monthly)

Environmental Action, Inc.—1346 Connecticut Ave. NW, Room 731, Washington, DC 20036 (202) 833-1845

Lobbying, energy conservation, solar, environmental issues

Environmental Law Institute—1346 Connecticut Ave. NW, Suite 600, Washington, DC 20036 (202) 452-9600

Model legislation; publishes *ECP Report* (monthly, free)

Environmental Policy Center—317 Pennsylvania Ave. SE, Washington, DC 20003 (202) 547-6500

Lobbying, strip mining, coal leasing, nuclear

Groundworks—4832 Hutchins Place NW, Washington, DC 20007 (no phone)

Institute for Ecological Policies—9208 Christopher, Fairfax, VA 22030 (703) 691-1271

People's energy plan (an alternative to the National Energy Plan); publishes *People and Energy* (monthly)

Neighborhood Legal Services—1337 H St. NE, Washington, DC 20002 (202) 399-6431

Utilities, used car sales, auto repairs, repossessions

Public Interest Economics Foundation—1714 Massachusetts Ave. NW, Washington, DC 20036 (202) 872-0313

Resources For the Future (RFF)—1755 Massachusetts Ave. NW, Washington, DC 20036 (202) 462-4400

Current reserves of key resources, use options; publishes *Resources*

World Watch Institute—1776 Massachusetts Ave. NW, Washington, DC 20036 (202) 452-1999

Energy issues, environmental problems, nuclear energy, food problems

florida

Brevard County Regional Energy Action Committee—c/o Barbara Brown, Florida Solar Energy Center, 300 State Road 401, Cape Canaveral, FL 32920 (305) 783-0300

Consumers Against High Prices—162 Andover G, Century Village, West Palm Beach, FL 33409 (305) 683-0826

Utilities issues, auto insurance

Environmental Information Center, Florida Conservation Foundation—935 Orange Ave., Winter Park, FL 32789 (305) 644-5377

Environmental issues, energy, non-circulating library open to the public; publications including *Build Your Own Solar Water Heater, Solar Heating for Swimming Pools*

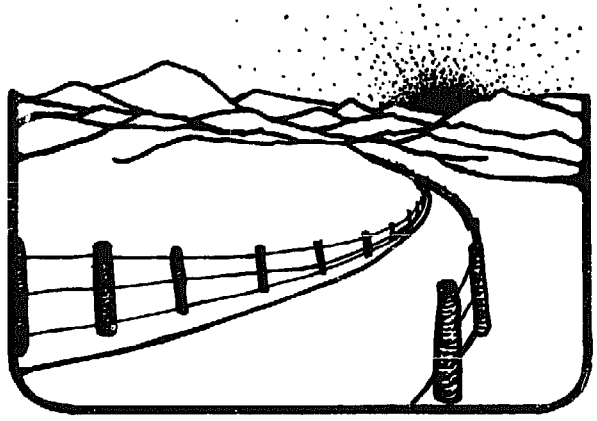
Florida Solar Coalition—400 Cortland Ave., Winter Park, FL 32789 (305) 647-0467

Florida Solar Energy Center—300 State Road 401, Cape Canaveral, FL 32920 (305) 783-0300

Florida State Energy Office—301 Bryant Building, Tallahassee, FL 32304 (904) 488-6764

Orlando People Power—11015 Highgate St., Orlando, FL 32809 (305) 855-5380

Utilities issues



georgia

Georgia Conservancy—4405 Paulsen St., Coastal Savannah, GA 31405 (912) 355-4840

Georgia Office of Energy Resources—270 Washington St. SW, Suite 615, Atlanta, GA 30334 (404) 656-5176

Georgia Solar Coalition—3110 Maple Dr. NE, Suite 403-A, Atlanta, GA 30305 (404) 231-9994

Georgia Solar Energy Association—Campus Box 32748, Georgia Institute of Technology, Atlanta, GA 30332 (no phone)

Rock Eagle Center—Route 2, Box 83, Eatontown, GA 31024 (404) 485-2831

Community programs

Sandy Creek Nature Center—Old Commerce Rd., Athens, GA 30607 (404) 546-0427

Solar, energy conservation

Southern Solar Energy Center—Exchange Place, Suite 1250, 2300 Peachford Rd., Atlanta, GA 30338 (404) 458-8765

See detailed entry under **federal agencies.**

SUNREP—Suite 412, 3110 Maple Ave., NE, Atlanta, GA 30305 (404) 261-1764

guam

Guam Energy Office—Territory of Guam, Office of the Governor, Agana, Guam 96910 (no phone)

hawaii

Center for Science Policy—Department of Planning and Economic Development, State of Hawaii, P.O. Box 2359, Honolulu, HI 96804 (808) 548-4195

Energy Education Center—c/o Moanalua Intermediate School, 1289 Mahiole St., Honolulu, HI 96819 (808) 833-6595

Energy Education Project—University of Hawaii, 1776 University Ave., Honolulu, HI 96822 (808) 948-6831

Governors Advisory Commission on Alternative Energy Development—c/o Judy Collins, 1656 Piikea, Honolulu, HI 96818 (808) 948-7727

Hawaii Natural Energy Institute—University of Hawaii, Holmes Hall, 2540 Dole St., Honolulu, HI 96822 (808) 948-8890

Hawaii Solar Energy Association—P.O. Box 23350, Honolulu, HI 96822 (no phone)

Hawaii State Energy Office, Department of Planning and Economic Development—1164 Bishop St., Honolulu, HI 96813 (808) 548-4150

idaho

Alternative Energy Association—Box 7963, Boise, ID 03707 (208) 336-7121

Idaho Conservation League—Box 344, Boise, ID 83701 (208) 345-6933

Environmental and energy issues

Idaho Consumer Affairs—106 N. 6th St., Pioneer Building, Boise, ID 83702 (208) 343-3776

Consumer problems, resource library

Idaho Office of Energy—State Capitol, Boise, ID 83720 (208) 384-3258

Mountain States Health Corporation—P.O. Box 6756, Boise, ID 83707 (208) 342-4666

Energy conservation for health care facilities

illinois

Center for Neighborhood Technology—570 W Randolph, Chicago, IL 60606 (312) 454-0126

Technical assistance to neighborhoods, small-scale labor intensive technology

Citizen/Labor/Energy Coalition—600 W. Fullerton, Chicago, IL 60614 (312) 975-3680

Utility rate reform, energy industry, jobs and energy

Citizens for a Better Environment—59 E. Van Buren St., #2610, Chicago, IL 60605 (312) 939-1530

Utility rate structures, nuclear power safety, toxic substances, water pollution

Evanston Environmental Association—2024 McCormick Blvd., Evanston, IL 60201 (312) 864-5181

Wind and solar demonstration, alternative energies

Human Environmental Planning Program—Governor's State University, Park Forest South, IL 60466 (312) 534-5000 Ext. 2545

Energy alternatives, appropriate technology, library, Midwest regional networking; publishes *Outlook* (formerly *Acorn*)

Illinois Institute of Natural Resources, Division of Solar Energy and Conservation—325 W. Adams, Springfield, IL 62706 (217) 785-2800

Illinois Institute of Natural Resources Library—309 W. Washington St., Third Floor, Chicago, IL 60606 (312) 793-3870

Energy library

Illinois Public Action Council—59 E. Van Buren St., 26th Floor, Chicago, IL 60605 (312) 427-6262

Utilities, lifeline, taxes, neighborhood issues

Northern Illinois Solar Energy Association—P.O. Box 1592, Aurora, IL 60507 (312) 892-4705

Shawnee Solar Project—211-1/2 W. Main, Carbondale, IL 62901 (618) 457-8172

South Central Illinois Solar Energy Association—c/o Earl G. Powell, 637 Eccles, Hillsboro, IL 62049 (217) 532-3233

University of Illinois, Office of Energy Research—116 Observatory, University of Illinois at Urbana-Champaign, Urbana, IL 61801 (217) 333-8861

Coordinates energy activities on the University's campuses

indiana

Alternative Technologies Association, Inc.—P.O. Box 20571, Indianapolis, IN 46220 (no phone)

Citizens Action Coalition—3620 N. Meridian, Indianapolis, IN 46208 (317) 923-2494

Utility reform, fair share/lifeline, utility consumers' bill of rights, solar, jobs

Consumer Center—730 E. Washington St., Fort Wayne, IN 46802 (219) 422-7630

Utility reform, hospital patients' bill of rights, complaint handling, grocery price survey

Frankfurt Community Public Library—208 W. Clinton St., Frankfurt, IN 46401 (317) 654-8746

Hoosier Solar Energy Association—P.O. Box 44448, Indianapolis, IN 46202 (no phone)

Indiana Energy Office—Consolidated Building, 7th Floor, 115 N. Pennslyvania, Indianapolis, IN 46204 (317) 633-6753

Solar, energy conservation information

Kentuckiana Solar Society—3713 Chapel Lane, New Albany, IN 47150 (no phone)

iowa

Citizens United for Responsibile Energy (CURE)—3500 Kingman Blvd., Des Moines, IA 50311 (515) 277-0253

Energy conservation, solar energy, anti-nuclear, lobbying

Community Action Research Group—Box 1232, Ames, IA 50010 (515) 292-4758

Solar energy lobbying, solar research, workshops; publishes journal on appropriate technology

Energy Research and Information Foundation—3500 Kingman Blvd., Des Moines, IA 50311 (515) 277-0253

Iowa Center for Local Self-Reliance—3500 Kingman Blvd., Des Moines, IA 50311 (515) 277-0968

Iowa Consumers League—P.O. Box 189, Corydon, IA 50060 (515) 872-1157

Consumer education, highway safety, utilities, food, conservation

Iowa Corn Promotions Board—402 Towers, 1200 35th St., West Des Moines, IA 50265 (no phone)

Iowa Energy Policy Council—215 E. 7th, Des Moines, IA 50319; solar information (515) 281-8071; energy conservation information (515) 281-4308

kansas

Appropriate Technology Group—Rt. 1, Box 93-A, Oskaloosa, KS 66066 (no phone)

Center for Rural Affairs—740-1/2 Massachusetts St., Lawrence, KS 66044 (913) 843-7152

Great Plains Windustries—2429 A Rosebud Lane, P.O. Box 126, Lawrence, KS 66044 (913) 842-7662

Wind energy systems development and construction

Kansas Energy Office—503 Kansas Ave., Room 241, Topeka, KS 66603 (913) 296-2496

Solar, energy conservation

Kansas Solar Energy Association—c/o Donald R. Stewart, 1202 S. Washington, Wichita, KS 67211 (316) 262-7427

Kansas Sun Day—P.O. Box 979, Lawrence, KS 66044 (913) 843-9808

Non-technical solar for Indian tribes, low- and middle-income groups

Land Institute—Route 3, Salina, KS 67401 (913) 823-8967

Renewable alternatives in agriculture, energy, shelter and waste; workshops

Mid-American Coalition for Energy Alternatives—5130 Mission Rd., Shawnee Mission, KS 66205 (913) 362-5932

Energy alternatives, solar

Wichita Energy House—1602 S. McLean Blvd., Wichita, KS 67213 (316) 265-4193

Test facilities for various alternative energy devices

kentucky

Concerned Consumers of Electric Energy—Rt. 2, Box 468, Shepardsville, KY 40165 (502) 957-3970

Electric utilities reform

Environmental Alternatives—818 E. Chestnut St., Louisville, KY 40204 (502) 587-3028

Solar demonstration house, energy conservation and solar information

Governor's Environmental Quality Commission—2518 Tophill Rd., Louisville, KY 40206 (502) 895-5925

Kentuckiana Solar Energy Association—c/o David Ross Stevens, Box 974, Louisville, KY 40201 (812) 945-4496

Kentucky Department of Energy—Capitol Plaza Tower, Frankfort, KY 40601 (502) 564-7416

louisiana

Ecology Center of Louisiana—P.O. Box 19344, New Orleans, LA 70179 (504) 482-8760

Solar power, hazardous wastes, water pollution

Louisiana Division of Natural Resources, Department of Research and Development—P.O. Box 44156, Baton Rouge, LA 70804 (504) 342-4592

Louisiana Solar Energy Council—c/o Bucky Neelis, St. Martin, Iberia and Lafayette Counties C.A.A., P.O. Box 3343, Lafayette, LA 70502 (318) 234-3272

maine

Coalition for Conservation—72 Winthrop St., Augusta, ME 04330 (207) 622-5798

Cornerstones Foundation—Brunswick, ME 04011 (207) 729-0540

Maine Audubon Alternative Energy Network—118 U.S. Rt. 1, Falmouth, ME 04105 (207) 781-2330

Solar, woodburning, alternative energy information

Maine Office of Energy Resources, Solar Information—55 Capitol St., Augusta, ME 04330 (207) 289-2196

Maine Organic Farmers and Gardeners Association (MOFGA)—P.O. Box 188, Hallowell, ME 04347 (207) 622-3118

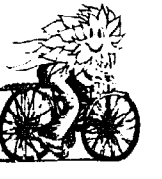
Maine Solar Energy Association—24 Goff St., Auburn, ME 04210 (207) 783-6466

Northeast Carry—P.O. Box 187, Hallowell, ME 04347 (207) 623-1667

Safe Power for Maine—P.O. Box 774, Camden, ME 04843 (207) 236-3610 or 547-3756

Utilities, nuclear power

Shelter Institute—38 Center St., Bath, ME 04530 (207) 442-7938



maryland

Baltimore Environmental Center—333 E. 25th St., Baltimore, MD 21218 (301) 366-2070

Heathcote—c/o C. Edwards, RD #1, Freeland, MD 21053 (no phone)

Land trust company of homeowners; low head hydro.

Maryland Citizens Consumer Council—P.O. Box 34526, Bethesda, MD 20034 (301) 299-5400

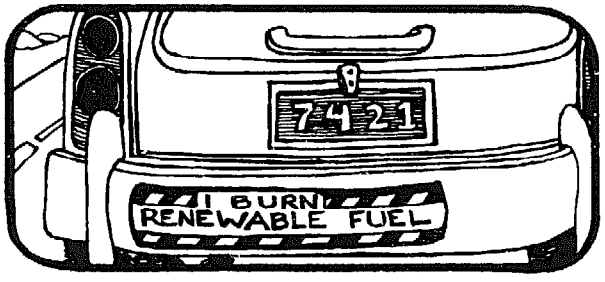
Maryland Energy Policy Office—301 W. Preston St., Suite 1302, Baltimore, MD 21201 (301) 383-6810

National Solar Heating and Cooling Information Center—P.O. Box 1607, Rockville, MD 20850

See detailed entry and toll-free telephone numbers under **sources of bulk information.**

Neighborhoods Uniting Project—3501 Bunker Hill Rd., Mt. Rainier, MD 20822 (301) 277-7085

School closings, energy conservation, utilities



Solar Action of Maryland—346 Glebe Rd., Easton, MD 21601 (301) 647-7100 Ext. 343

massachusetts

Cambridge Economic Opportunity Center—11 Inman St., Cambridge, MA 02139 (617) 868-2900

Citizens task force on food issues, utilities, senior meals programs

Center for Energy Policy—1000 Statler Building, Boston, MA 02116 (617) 482-8660

Energy, transportation, national energy policy, business development

Citizen Participation for Political Action (CP-PAX)—35 Kingston St., Boston, MA 02111 (617) 426-3040

Citizen action on energy

Cooperative Extension Energy Program—Tillson Farm, University of Massachusetts, Amherst, MA 01003 (413) 545-2132

Energy audits, passive solar, community energy education

Energy Policy Information Center (EPIC)—3 Joy St., Boston, MA 02108 (617) 523-0376

Safe energy research, lobbying

Low Income Planning Aid—2 Park Square, Room 612, Boston, MA 02116 (617) 426-4363

Welfare, health care, child-bearing rights, consumer education, utility issues

Massachusetts Fair Share—304 Boylston St., Boston, MA 02116 (617) 266-7505

Citizen action, auto insurance, utilities, tax reform, tenants rights

Massachusetts Office of Energy Resources, Solar Information—73 Tremont St., Room 700, Boston, MA 02129 (617) 727-4732

Mass Bay Solar Energy Association—55 Chester St., Newton, MA 02161 (no phone)

MassPIRG—120 Boylston St., Boston, MA 02116 (617) 423-1796; (413) 256-6434

Consumer and environmental issues

Metropolitan Ecology Workshop—74 Joy St., Boston, MA 02114 (617) 266-6911

Library, energy information exchange, wind, bioconversion, high- and medium-temperature solar collector systems

New Alchemy Institute—P.O. Box 432, Woods Hole, MA 02543 (617) 563-2655

Intensive agriculture, ponds, greenhouses and food production, home wastewater purification, workshops; publishes *New Alchemy Journal*

New England Appropriate Technology Network, (NEAT-NET)—P.O. Box 548, Greenfield, MA 01301 (413) 774-2257

Publishes *New Roots*

Northeast Solar Energy Center (NESEC)—70 Memorial Dr., Cambridge, MA 02142 (617) 661-3500

See detailed entry under **federal agencies.**

Office to Coordinate Energy Research and Education—University of Massachusetts, Amherst, MA 01002 (413) 545-0926

Service for Energy Conservation in Architecture—Boston Architectural Center, 320 Newbury St., Boston, MA 02115 (617) 267-7772 or 536-3170

Membership organization of building-related professionals; energy conservation information

Western Massachusetts Solar Energy Association—c/o Cooperative Extension Service, College of Food and Natural Resources, Energy Conservation Program, Tillson Farm, Amherst, MA 01003 (413) 545-2132

michigan

Alliance for Clean Energy—c/o Rod Bailey, Grand Valley State College, Allendale, MI 49401 (616) 895-6611 Ext. 146

Workshops and conferences, energy alternatives, neighborhood self-sufficiency

Center for Environmental Quality—228 Administration Building, Michigan State University, East Lansing, MI 48844 (517) 355-2180

Interdisciplinary energy research

Cooperative Extension Energy Project—c/o Martha Drake, City and County Building, Petoskey, MI 49770 (616) 347-2596

Michigan Energy Administration—6250 Mercantile Way, Suite 1, Lansing, MI 48913 (517) 374-9090 or 373-6430

Michigan Energy Extension Service—Department of Commerce, P.O. Box 30228, Lansing, MI 48909 (517) 373-0480

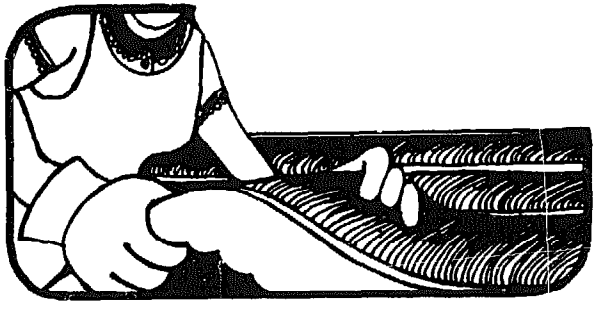
Michigan Solar Energy Association—201 E. Liberty St., Suite 2, Ann Arbor, MI 48104 (313) 663-7799

Sun Dance—1776 Building, Dow Chemical, Midland, MI 48640 (no phone)

Community solar retrofits (40 percent of area housing by 2000)

Upland Hills Ecological Awareness Center—2575 Indian Lake R., Oxford,MI 48051 (313) 628-5116

Alternative energy, education, workshops; publishes periodic bulletin



micronesia

Office of Planning and Statistics—c/o Marcelino K. Actouka, Office of the High Commissioner, Federation of Micronesia, Sipan, Marianas Islands 96950 (no phone)

minnesota

Center for Local Self-Reliance—3302 Chicago Ave., Minneapolis, MN 55407 (612) 824-6663

Mid-American Solar Energy Complex (MASEC)—1256 Trapp Rd., Eagan, MN 55121 (612) 452-5300

See detailed entry under **federal agencies.**

Minnesota Energy Agency—Ninth Floor, American Center Building, 150 E. Kellogg Blvd., St. Paul, MN 55101 (612) 296-5120

MPIRG—3036 University Ave., Minneapolis, MN 55414 (612) 376-7554

Sun Day Minnesota—2412 University Ave. SE, Minneapolis, MN 55414 (612) 376-7554

mississippi

Mid-State Opportunity, Inc.—P.O. Drawer G, Charlestown, MS 38921 (601) 647-2463

Winterization

Mississippi Consumer Association—c/o M. L. Perry, 375 Culley Dr., Jackson, MS 39206 (601) 362-6643

Utility reform, health insurance, complaint-handling

Mississippi Energy Office—Suite 228, Bearfield Complex, 455 N. Lamar, Jackson, MS 39202 (601) 354-7406

Mississippi Solar Council—887 Briarwood Dr., Jackson, MS 39211 (601) 956-4868

Mississippi Solar Energy Association (MISSEA)—c/o Dr. Pablo Okhuysen, 225 W. Lampkin Rd., Starkville, MS 39759 (601) 323-7246

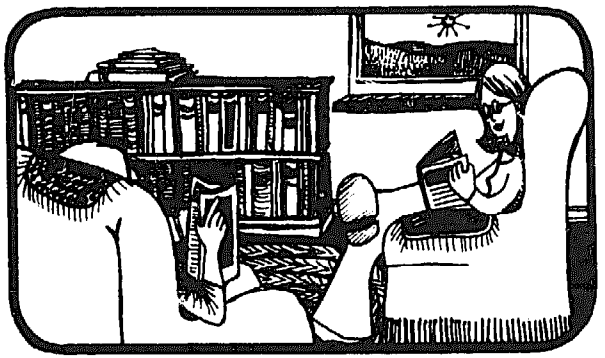
Prairie Opportunity—P.O. Box 1526, Starkville, MS 39759 (601) 323-7932

Energy, winterization

missouri

Citizens/Labor/Energy Coalition—115 E. Armour, Room 103, P.O. Box 10171, Kansas City, MO 64111 (816) 756-0397

Coalition for the Environment—6267 Delmar Blvd., St. Louis, MO 63130 (314) 727-0600



Industrial and Technical Referral Center—1020 Engineering Building, University of Missouri, Columbia, MO 65211 (314) 882-3469 or 882-2087

Solar bibliographies, local referrals

Missouri Energy Program—P.O. Box 176, 1014 Madison St., Jefferson City, MO 65101 (314) 751-4000

Mo-Ark Solar Energy Association—P.O. Box 1643, Jefferson City, MO 65102 (no phone)

montana

Alternative Energy Resources Organization (AERO)—435 Stapleton Building, Billings, MT 59101 (406) 259-1958

Solar energy, workshops, traveling exhibits; local energy organizers in Helena, Billings, Hamilton, Miles City, Round-up, Havre, Bozeman; publishes *Sun Times*

AERO West—323 W. Alder, Missoula, MT 59801 (406) 549-0756

Montana Department of Natural Resources and Conservation, Energy Division—32 S. Ewing St., Helena, MT 59601 (406) 449-3940

Montana Sun Team—P.O. Box 216, Circle, MT 59215 (406) 485-2180

Solar workshops

Mountain Plains Congress of Senior Citizens—P.O. Box 86, Ballantine, MT 59006

National Center for Appropriate Technology (NCAT)—P.O. Box 3838, Butte, Mt 59701 (406) 723-5474

See detailed entry under **federal agencies.**

New Western Energy Show—842 5th Ave., Helena, MT 59601 (406) 443-7272

Exhibits, renewable energy, theatrical and musical medicine show

Northern Plains Resource Council—421 Stapleton Building, Billings, MT 59101 (406) 248-1154

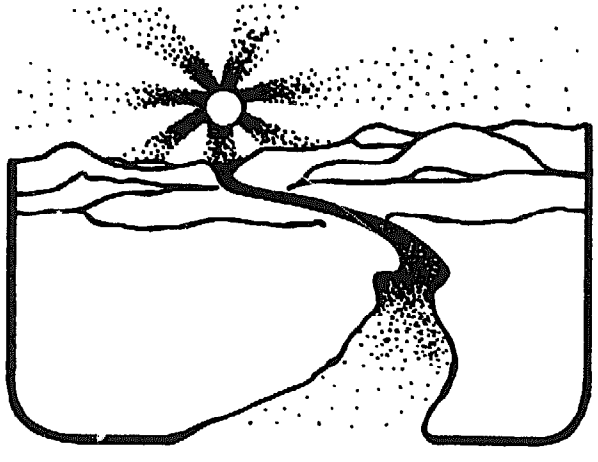
Mineral and water resources

Northern Rockies Action Group—9 Placer St., Helena, MT 59601 (406) 442-6615

Regional environmental issues

Western Information Network on Energy (WINE)—Arcada Building, Suite 4D, 111 North Last Chance Gulch, Helena, MT 59601 (406) 443-3388

Loose-knit network of energy information specialists in all states west of the Mississippi



nebraska

Midwest Energy Alternatives Coalition—Suite 209, Executive Building, 521 S. 14th St., Lincoln, NE 68508 (402) 432-4077

Energy alternatives

Nebraska Energy Office—301 S. Centennial Mall, Lincoln, NE 68509 (402) 471-2867

Nebraska Solar Energy Association—c/o Dr. Bing Chen, University of Nebraska, Department of Electrical Technology, 60th and Dodge St., Omaha, NE 68182 (402) 554-2769

Small Farm Energy Project/Center for Rural Affairs—P.O. Box 736, Hartington, NE 68739 (402) 254-6893

Demonstration programs, solar energy agricultural uses

nevada

Consumers League of Nevada—2154 Golden Arrow Dr., Las Vegas, NV 89109 (702) 734-1587

Landlord/tenant issues, food sales tax, health insurance, utilities

Desert Research Laboratory—University of Nevada System, 1500 Buchanan Blvd., Boulder City, NV 89005 (702) 293-4217

No general information, will answer specific questions

Nevada Association of Solar Energy Advocates—University Station, P.O. Box 1978, Reno, NV 89507 (702) 322-6618

Nevada Department of Energy—1050 E. Williams, Suite 405, Carson City, NV 89701 (702) 885-5157

new hampshire

Energy Service Center—P.O. Box 344, Newmarket, NH 03857 (603) 659-5774 or 659-2804

Energy conservation, workshops, solar design for residential and commercial applications

Governor's Council on Energy—2-1/2 Beacon St., Concord, NH 03301 (603) 271-2711

New Hampshire Energy Coalition—c/o Seacoast Anti-Pollution League, P.O. Box 134, Hampton Falls, NH 13844 (603) 964-6514

New Hampshire Solar Energy Associates—c/o Dave Masters, New Perspectives, Inc., 59 N. Main St., Concord, NH 03301 (603) 225-3133

New Hampshire Solar Energy Association—P.O. Box 4382, Manchester, NH 03108 (603) 435-8157

Northern New Hampshire Solar Energy Association—c/o Paul Hazelton, EVOG, Hebron, NH 03241 (603) 744-8918

Solar Survival—P.O. Box 119, Harrisville, NH 03450 (no phone)

Solar food dryers, rural needs, consulting

Sugar River Energy Alliance—P.O. Box 920, Claremont, NH 03743 (603) 675-5486

Total Environmental Action Foundation—P.O. Box 47, 12 Church Hill, Harrisville, NH 03450 (603) 827-3374

Workshops, solar and wind energy

Upper Valley Energy Coalition—18 Mascoma St., Lebanon, NH 03784 (603) 448-1882

Anti-nuclear, alternative energy

new jersey

Association of New Jersey Environmental Commissions—P.O. Box 157, Mendham, NJ 07945 (201) 539-7547

Land use planning, solar access

Consumers League of New Jersey—20 Church St., Montclair, NJ 07042 (201) 744-6449

Utilities, small claims, credit, food

New Jersey Department of Energy, Office of Alternate Technology—101 Commerce St., Newark, NJ 07102 (201) 648-6293

New Jersey Solar Action—32 W. Lafayette St., Trenton, NJ 08608 (609) 393-7474

Tri-City Citizens Union for Progress—675-681 S. 19th St., Newark, NJ 07103 (201) 374-5252

new mexico

Alamogordo Solar Energy Association—c/o Ed Tyson, 1832 Corte del Ranchero, Alamogordo, NM 88310 (505) 437-4258

Albuquerque Solar Energy Association—c/o Bob Stromberg, Solar Technical Division, Sandia Labs 4714, Albuquerque, NM 87185 (505) 264-2282

Citizens Association for Utility Study Efforts (CAUSE)—P.O. Box 3B, University Park, NM 88003 (no phone)

Utility, anti-nuclear issues

Dona Ana Solar Energy Association—c/o Harry Zweibel, P.O. Box 1592, Las Cruces, NM 88001 (505) 646-1846

Energy Consumers of New Mexico—17 Richmond Ave. NE, Albuquerque, NM 87106 (505) 268-6791; toll-free in New Mexico (800) 432-6734

Consumer advocates, utility issues, lobbying

Farmington Energy Extension Service—San Juan Branch, Community College of NMSU, Farmington, NM 87401 (505) 325-7556

Las Cruces Energy Extension Service—P.O. Box 3 EES, NMSU, University Park, Las Cruces, NM 88003 (505) 646-2241

Los Alamos League of Women Voters—P.O. Box 159, Los Alamos, NM 87544 (no phone)

New Mexico Energy and Minerals Department—P.O. Box 2770, Santa Fe, NM 87503 (505) 827-2472

New Mexico Energy Extension Service—P.O. Box 00, 440 Cerrillos Rd., Santa Fe, NM 87501 (505) 827-2386

New Mexico Energy Institute—University of New Mexico, 117 Richmond Ave. NE, Albuquerque, NM 87131 (505) 277-3661

Energy conservation, synthetic fuels

New Mexico Energy Institute—P.O. Box 3EI, Las Cruces, NM 88003 (505) 646-1846

Solar energy

New Mexico Solar Energy Association (NMSEA)—P.O. Box 2004, Santa Fe, NM 87501 (505) 983-2861

Publishes *Southwest Bulletin;* educational materials, slide sets and reports

Roswell Energy Extension Service—330 N. Richardson, Roswell, NM 88201 (505) 623-9010

San Miguel County Solar Energy Association—P.O. Box 153, Montezuma, NM 87731 (no phone)

Santa Fe League of Women Voters—237 E. DeVargas St., Santa Fe, NM 87501 (505) 982-9766 (9:30 a.m. to 12:00 p.m. only)

Solar Sustenance Project—Route 1, Box 107AA, Santa Fe, NM 87501 (505) 455-7550

Southwest Research and Information Center—P.O. Box 4524, Albuquerque, NM 87106 (505) 242-4766

Research, regional environmental issues; publishes *Workbook* (monthly)

Taos Solar Energy Association—Fred Hopman, P.O. Box 2334, Taos, NM 87571 (505) 758-4051

Zomeworks—P.O. Box 712, Albuquerque, NM 87103 (505) 242-5354

Passive solar design, publications, hands-on workshops, consulting

new york

Consumer Action Now (CAN)—355 Lexington Ave., 16th Floor, New York, NY 10017 (212) 682-8915

Center for Environmental Options—196 Morton Ave., Albany, NY 12202 (518) 472-9760

Eastern New York Solar Energy Association—P.O. Box 5181, Albany, NY 12205 (518) 457-7584

Energy Task Force—156 5th Ave., New York, NY 10010 (212) 675-1920

Metropolitan New York Solar Energy Association—c/o Kurt J. Wasserman, P.O. Box Z, Port Jervis, NY 12771 (914) 856-6633

New York Alliance to Save Energy—36 W. 44th St., New York, NY 10036 (212) 840-8383

New York Energy Office—Agency Building, 2 Empire State Plaza, Albany, NY 12223 (518) 474-7016

People's Development Corporation—500 E. 167th St., New York, NY 10456 (212) 292-1378

People's Power Coalition—196 Morton Ave., Albany, NY 12202 (518) 449-7444

Scientists Institute for Public Information—355 Lexington Ave., 16th Floor, New York, NY 10017 (212) 661-9110

Solar Utilization in New York—P.O. Box 9501, Rochester, NY 14604 (716) 546-2700 Ext. 2647

Syracuse Research Corporation--Merrill Lane, Syracuse, NY 13210 (315) 425-5100 Ext. 354

north carolina

Approtech Associates—12 Mount Vernon Circle, Asheville, NC 28804 (704) 254-4193

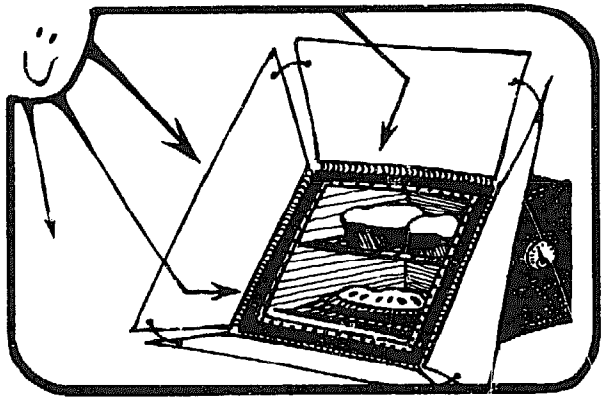
Carolina Action—P.O. Box 1985, Durham, NC 27702 (919) 682-6076

Housing, neighborhood improvements, utilities, lifeline, consumer education

I Care, Inc.—P.O. Box 349, Statesville, NC 28677 (704) 872-8141

Utilities, energy conservation, credit and budgeting, low-income groups

Long Branch Land Association—Route 2, Big Sandy Mush, Leicester, NC 28748 (704) 683-3662



North Carolina Coalition for Renewable Energy Resources—P.O. Box 10564, Raleigh, NC 27605 (919) 286-7611

North Carolina Energy Policy Council—P.O. Box 25249, 430 N. Salisbury, Raleigh, NC 27611 (919) 733-2230

North Carolina Land Trustees—714 9th St., #206, Durham, NC 27705 (919) 286-4411

North Carolina Senior Citizens Federation—P.O. Box 1516, Henderson, NC 27536 (919) 492-6031

Lifeline, landlord/tenant issues

North Carolina Solar Energy Association—c/o Leon Neal, P.O. Box 12235, Research Triangle Park, NC 27709 (919) 549-0671

north dakota

North Dakota Energy Office—1533 N. 12th St., Bismarck, ND 58501 (701) 224-2250

North Dakota Migrant Council—325 N. 8th St., Grand Forks, ND 58201 (701) 746-6494

northern marianas

Northern Marianas Office of Transition Studies and Planning—c/o Pedro A. Sasamoto, Commonwealth of the Northern Marianas, P.O. Box 9, Sipan, Northern Marianas 96950

ohio

Ohioans for Utility Reform—842 S. Green Rd., Cleveland, OH 44121 (no phone)

Utility rate reform, energy

Ohio Citizens' Action Group—65 S. 4th St., Columbus, OH 43215 (614) 461-0136

Ohio Department of Energy—30 E. Broad St., 34th Floor, Columbus, OH 43215 (614) 466-6797

Ohio Solar Energy Association—c/o Joseph J. Barbish, 13125 Dorothy Dr., Chesterland, OH 44026 (216) 792-9350

People Power—475 Market St., West Akron, OH 44303 (216) 434-8943

Taxes, utilities

oklahoma

Oklahoma Department of Energy—4400 N. Lincoln Blvd., Suite 251, Oklahoma City, OK 73105 (405) 521-3941

Oklahoma Environmental Information and Media Center—East Central Oklahoma State University, Ada, OK 74820 (405) 332-8000 Ext. 373

Energy information; publishes *Eco-Systems*

Oklahoma Sun Day—3115 Harvey Parkway, Oklahoma City, OK 73118 (405) 525-9004

oregon

Center for Environmental Action—P.O. Box 188, Cottage Grove, OR 97424 (503) 942-7604

Center for Environmental Action—1510 Fairground Rd. NE, Salem, OR 97303 (503) 363-4294

Columbia Solar Energy Association—c/o Shanna Reed, OMSI Energy Center, 4015 S.W. Canyon Rd., Portland, OR 97221 (503) 248-5920

Energy Conservation Center—401 E. 10th St., Suite 5E, Eugene, OR 97401 (503) 484-1125

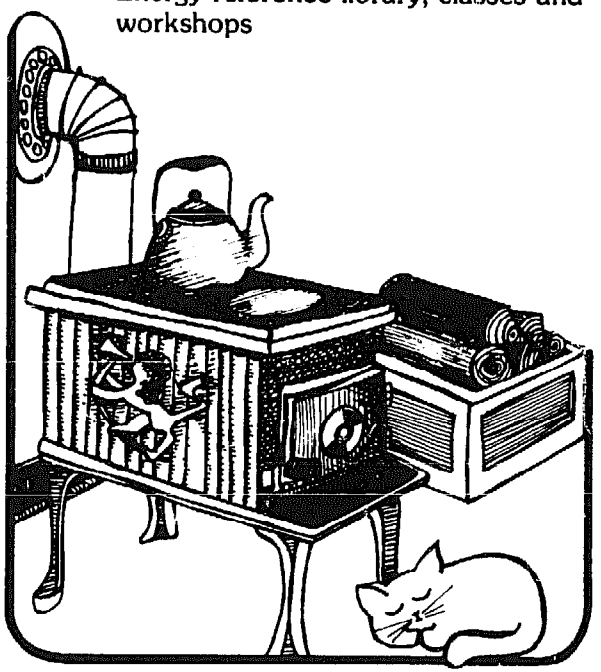
Mid-Columbia Community Action Council, Inc.—P.O. Box 726, The Dalles, OR 97058 (503) 298-5131

Energy conservation, winterization

Oregon Department of Energy—Labor & Industries Building, Room 111, Salem, OR 97310 (503) 378-4128

Oregon Museum of Science and Industry (OMSI) Energy Center—4015 S.W. Canyon Rd., Portland, OR 97221 (503) 248-5920

Energy reference library, classes and workshops



Oregon Solar Energy Society—c/o Willamette University, Salem, OR 97301 (503) 370-6199

Portland Sun—3334 S.W. 1st Ave., Portland, OR 97201 (503) 241-0317

Solar water heater and greenhouse hands-on workshops, design consulting

RAIN—2270 N.W. Irving, Portland, OR 97210 (503) 227-5110

Appropriate technology information and workshops; publishes *RAIN*

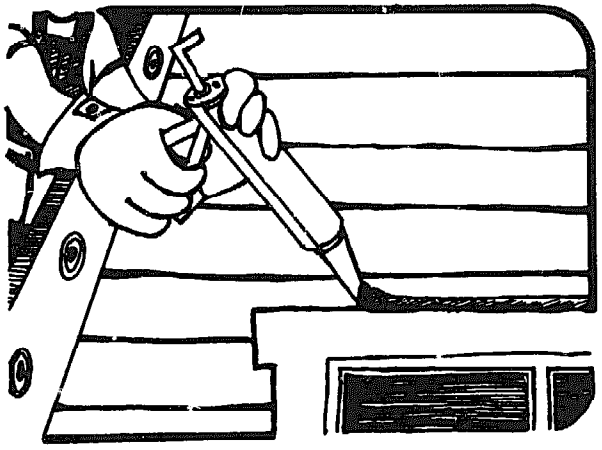
Solar Energy Center—University of Oregon, Department of Architecture, Eugene, OR 97403 (503) 686-3662

Solar Energy Resource Group (SERGE)—c/o J. R. Norlin, 1244 S.E. Germond Ave., Roseburg, OR 97470 (503) 672-6050

Solar Oregon Lobby (SOL)—720 N.E. Ainsworth, Portland, OR 97211 (503) 284-9320

Sunergi—South Oregon New Energy Institute, 10 N. Central, Medford, OR 97501 (503) 772-5678

Survival Center—University of Oregon, Suite 1, EMU-2, Eugene, OR 97403 (503) 686-4356



Western Solar Utilization Network (Western SUN)—921 S.W. Washington, Suite 160, Portland, OR 97205 (503) 241-1222

See detailed entry under **federal agencies.**

Yamhill County Energy Office—Courthouse, McMinnville, OR 97128 (503) 472-9371 Ext. 201

pennsylvania

Alliance for Consumer Protection—P.O. Box 1354, Pittsburgh, PA 15230 (413) 683-4256 or 683-4251

Utility rate structure, lifeline, general consumer issues

Governor's Energy Council—1625 N. Front St., Harrisburg, PA 17102 (717) 783-8610

Mid-Atlantic Solar Energy Association—2233 Gray's Ferry, Philadelphia, PA 19146 (215) 963-0880

Pennsylvania Energy Extension Service—Governor's Energy Council, 1625 N. Front St., Harrisburg, PA 17102 (717) 443-8186

Pennsylvania Policy Research Center—19 E. Newfield Way, Bala-Cynwyd, PA 19004 (215) 664 0724

Pennsylvania Solar Power Advocates—615 Hedgerow Lane, Lancaster, PA 17601 (717) 569-4203

Project Pacesetter—Park Building, 355 5th Ave., Pittsburgh, PA 15222 (412) 281-7453

Tree Farm Energy—RD#3, Slippery Rock, PA 16057 (no phone)

Civil engineering, electricity, low head hydro

puerto rico

Center for Energy and Environmental Research—Caparra Heights Station, San Juan, PR 00935 (809) 765-7210

Department of Consumer Affairs—P.O. Box 41095, Minillas Station, PR 00940 (809) 765-6090

Office of Energy—P.O. Box 41089, Minillas Station, Santurce, PR 00940 (809) 726-4740

rhode island

Coalition for Consumer Justice—c/o Leo Pocchiari, 410 Broad St., Central Falls, RI 02863 (401) 723-3147

Governor's Energy Office—80 Dean St., Providence, RI 02903 (401) 277-3374

Rhode Island Solar Energy Association—195 Waterman St., Apt. 3, Providence, RI 02906 (401) 521-7319

south carolina

Department of Energy Resources—Edgar Brown Building, 1205 Pendleton St., Columbia, SC 29201 (803) 758-2050

The People Are Coming—c/o Tom Turnipseed, 560 Meeting St., West Columbia, SC 29169 (803) 794-1512

Utility rate intervention

South Carolina Environmental Coalition—P.O. Box 5761, Columbia, SC 29250 (803) 799-0321

South Carolina Task Force—P.O. Box 11781, Columbia, SC 29211 (803) 787-4641

Renewable resources

south dakota

Environmental Resources Coalition—c/o Kay Anderson, 2404 S. 3rd St., Sioux Falls, SD 57105 (no phone)

South Dakota State Energy Office—Capital Lake Plaza, Pierre, SD 57501 (605) 773-3604

Western South Dakota Community Action, Inc.—5001 Sturges Rd., Rapid City, SD 57701 (605) 348-1460

Winterization, energy conservation

tennessee

Agricultural Marketing Project—Appropriate Technology Project, 814 S. Webb, Crossville, TN 38555 (615) 484-8887

Energy Education Division—Oak Ridge Associated Universities, P.O. Box 117, Oak Ridge, TN 37830 (615) 576-3031

Environment Center—University of Tennessee, South Stadium Hall, Knoxville, TN 37916 (615) 974-4251

Energy conservation education, solar library

League of Women Voters—c/o Helen Dez, Energy Chair, 1605 17th Ave. So., Nashville, TN 37209 (615) 297-0170

Mid-South Solar Energy Society—P.O. Box 11471, Memphis, TN 38111 (no phone)

The Road Company—302 W. Main, #1, Johnson City, TN 37601 (615) 926-7726

Solar home tours

Tennessee Energy Extension Service—226 Capitol Blvd., Suite 615, Nashville, TN 37219 (615) 741-6677

Tennessee Energy Authority—226 Capitol Blvd., Suite 707, Nashville, TN 37219 (615) 741-2994

Tennessee Environmental Council and Solar Coalition—P.O. Box 1422, Nashville, TN 37202 (615) 251-1110

Energy conservation education

Tennessee Solar Energy Association—P.O. Box 19, Middle Tennessee State University, Murfreesboro, TN 37132 (615) 898-2778

Solar energy education and outreach

Tennessee Valley Authority (TVA)—426 United Bank Building, 700 Chestnut St., Chattanooga, TN 37401 (615) 854-3623

texas

Energy Information Service—ENS Building, Room 143, University of Texas at Austin, Center for Energy Studies, Austin, TX 78712 (512) 471-7792

Library of energy materials, energy research

Southwest Utility Associates—P.O. Box 13052, Austin, TX 78711 (no phone)

Utility rate case intervention

Texas Energy Advisory Council—7703 N. Lamar, Room 500, Austin, TX 78752 (512) 475-5588

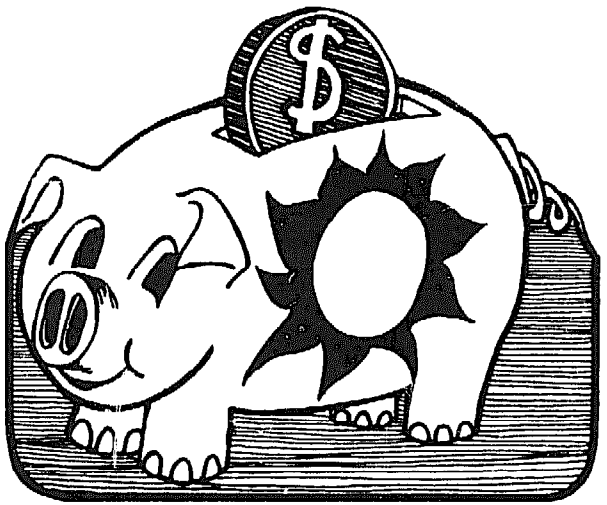
Texas Energy Extension Service—Texas A&M University, College Station, TX 77843 (713) 845-8025

Texas Housing Development Corp.—221 E. 9th St., Suite 203, Austin, TX 78701 (512) 476-7518

Consumer education, workshops on alternative technologies

Texas Solar Action Coalition—1418 Alameda, Austin, TX 78705 (512) 476-5678

Texas Solar Energy Society—c/o Russell E. Smith, 1007 S. Congress, Suite 348, Austin, TX 78704 (512) 443-2528



utah

Utah Energy Office—455 E. 400 South, Suite 303, Salt Lake City, UT 84111 (801) 533-5424; energy hotline (801) 581-5424; toll-free in Utah (800) 662-3633

vermont

Center for Studies in Food Self-Sufficiency—109 S. Winooski Ave., Room 203, Burlington, VT 05401 (802) 863-3204

Workshops, research, community action

Central Vermont Community Action Council—15 Ayers St., Barre, VT 05641 (802) 479-0136

Energy conservation

New England Regional Energy Project—P.O. Box 514, Burlington, VT 05401 (802) 863-3408

Utility rates, conservation, jobs

New England Solar Energy Association (NESEA)—P.O. Box 541, 22 High St., Brattleboro, VT 05301 (802) 254-2386

Solar Association of Vermont—P.O. Box 732, Montpelier, VT 05602 (802) 223-5221

Vermont Alliance—5 State St., Montpelier, VT 05602 (802) 229-9104

Community organizing

Vermont Energy Office—State Office Building, Montpelier, VT 05606 (802) 828-2393

virgin islands

Virgin Islands Energy Office—P.O. Box 2996, St. Thomas, Virgin Islands 00801 (809) 774-6726

virginia

Citizens' Energy Forum—2903 N. Stafford St., Arlington, VA 22207 (703) 528-7708

Community Education Program—Total Action Against Poverty, P.O. Box 2868, 702 Shenandoah Ave. NW, Roanoke, VA 24001 (703) 345-6781 Ext. 283

Winterization, utility rate reform, energy issues for low income, workshops, community organizing

Virginia Consumers Congress—900 S. Washington, Falls Church, VA 22046 (703) 536-7366

Utility rate intervention

Virginia Energy Office—310 Turner Rd., Richmond, VA 23228 (804) 786-8451

Virginia Solar Council—2338 N. 11th St., Room 302, Arlington, VA 22201 (703) 243-9574

Virginia Solar Energy Association—c/o John W. Spears, PRC Energy Analysis Co., 7600 Old Springhouse Rd., McLean, VA 22102 (703) 893-1800 Ext. 2871

washington

Blue Mountain Action Council—19 E. Poplar, Walla Walla, WA 99362 (509) 529-4980

Utility rates

Ecotope Group—2332 E. Madison, Seattle, WA 98112 (206) 322-3753

Appropriate technology, renewable energy, energy conservation, recycling, workshops

Inland Empire Solar Energy Association—N. 4609 Post, Spokane, WA 99205 (509) 326-6009

Northwest Energy Options—1022 N.E. 68th, Seattle, WA 98115 (206) 525-9271

Olympic Alternatives Center—c/o Levi Ross, Port Townsend City Library, 1221 Lawrence, Port Townsend, WA 98368 (no phone)

Outback—Fairhaven College, Bellingham, WA 98225; leave messages at (206) 676-3680

Organic gardening, windmills, solar, methane production

Pacific Northwest Solar Energy Association—c/o Ecotope, 2332 E. Madison, Seattle, WA 98112 (206) 322-3753

Washington Energy Extension Service—Room 312, Smith Tower, Seattle, WA 98104 (206) 344-3440

Washington State Energy Office—400 E. Union, First Floor, Olympia, WA 98504 (206) 753-2417

Western Washington Solar Energy Association—c/o Perry Lovelace, 1220 N.W. 77th, Seattle, WA 98117 (206) 325-6710 or 783-6283

Yakima Solar Energy Association—c/o John Shaw, 8001 Englewood Circle Dr., Yakima, WA 98908 (509) 965-0891 or 457-5167

west virginia

Appalachian Defense Fund—1116B Kanawha Blvd. E., Charleston, WV 25301 (304) 344-9687

Council of Senior West Virginians—1033 Quarrier St., Charleston, WV 25301 (304) 342-5430

Council on Southern Mountains—Drawer Z, 125 McDowell St., Welch, WV 24801 (304) 436-2185

Conservation

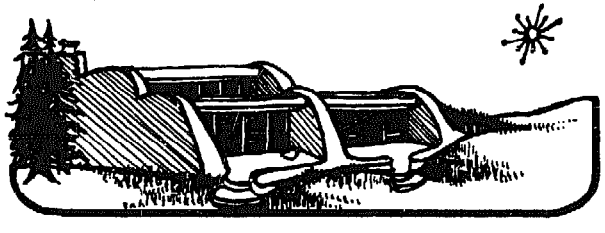
New River Energy Center—P.O. Box 1341, Beckley, WV 25985 (304) 466-3535

Technology Education Program—West Virginia University, 2945 University Ave., Morgantown, WV 26506 (304) 293-3191

West Virginia Citizen Action Group—1324 Virginia St. E., Charleston, WV 25301 (304) 346-5891

Utilities, energy conservation, rate hearings, lifeline, lobbying; clearinghouse for local groups

West Virginia Fuel & Energy Office—1261-1/2 Greenbrier St., Charleston, WV 25311 (304) 348-3860



wisconsin

Access Program—School of Architecture, University of Wisconsin, Milwaukee, WI 53201 (414) 963-4014

Research and development, energy curriculum, demonstration residence

Center for Community Technology—1121 University Ave., Madison, WI 53715 (608) 251-2207

Appropriate technology, energy library, annual alternatives festival

Friends Mime Theatre—1248 N. 86th St., Milwaukee, WI 53226 (414) 271-9544

Energy theatre, energy bibliography

West CAP—P.O. Box 308, 525 2nd St., Glenwood City, WI 54013 (715) 265-4271

Winterization, low-income housing, wood-burning

Windworks—Route 3, Box 44A, Mukwonago, WI 53149 (414) 363-4408

Wisconsin Energy Extension Information Center (WEES)—1 S. Park St., Madison, WI 53706 (608) 263-7950

Energy conservation, solar, speakers bureau

Wisconsin Office of State Planning and Energy—1 W. Wilson, Madison, WI 53701 (608) 266-8234

Wisconsin Solar Energy Association—c/o Ernest Rogers, 6704 Spring Grove Ct., Middleton, WI 53562 (608) 831-4446

wyoming

Casper College—Energy Extension Regional Director, Casper, WY 82601 (307) 266-4904

Central Wyoming College—Energy Extension Regional Director, Riverton, WY 82501 (307) 856-7979 Ext. 40

Community Action of Laramie County—1603 Central, Suite 400, Cheyenne, WY 82001 (307) 635-9291

Concerned Citizens for Energy Conservation and NOWCAP—1922 Robertson, Worland, WY 82401 (307) 347-4777

Eastern Wyoming College—Energy Extension Regional Director, Torrington, WY 82240 (307) 532-7111

Laramie County Community College—Energy Extension Regional Director, Cheyenne, WY 82001 (307) 635-7038

Northwest Community College—Energy Extension Regional Director, P.O. Box 568, Powell, WY 82435 (307) 754-6470

Rocky Mountain Institute for Energy and Environment—University Station, Box 3965, Laramie, WY 82071 (307) 766-6760

Geothermal, solar energy

Sheridan College—Energy Extension Regional Director, Sheridan, WY 82801 (307) 674-4939

Western Wyoming College—Energy Extension Regional Director, P.O. Box 428, Rock Springs, WY 82901 (307) 382-2121 Ext. 208

Wyoming Energy Conservation Office—320 W. 25th St., Cheyenne, WY 82002 (307) 777-7131

Wyoming Energy Extension Service—University Station, Box 3965, Laramie, WY 82071 (307) 766-3362

national organizations

American Institute of Architects (AIA) Research Corporation—1735 New York Ave. NW, Washington, DC 20006 (202) 785-7300

Provides information for its membership on solar applications; focuses on passive solar design and dispersed active systems

Publications: Request listing of solar energy publications.

American Section/International Solar Energy Society (AS/ISES)—American Technological University, P.O. Box 1416, Killeen, TX 76541 (817) 526-1300

Uses and applications of solar energy; has the following state and regional chapters (see information under each state): Alabama, Arizona, Colorado, Georgia, Illinois, Indiana, Kansas, Michigan, Mississippi, Nebraska, New England, New Mexico, New York, North Carolina, Ohio, Oklahoma, Pacific Northwest, Pennsylvania, Tennessee, Texas, Virginia, Wisconsin

Publications: *Solar Age* (monthly), *Solar Energy* (bimonthly), *Sun World* (quarterly), *ISES News* (international newsletter), *Annual Membership Directory*, conference proceedings, books, reprints, educational materials

American Society of Heating, Refrigerating and Air Conditioning Engineers, Inc. (ASHRAE)—347 E. 47th St., New York, NY 10017 (212) 644-7500

Answers inquiries from professional engineers; Engineering Societies Library collection available for on-site use

Publications: *ASHRAE Journal* (monthly)

American Wind Energy Association (AWEA)—1621 Connecticut Ave. NW, Washington, DC 20009 (202) 667-9137

Facilitates the widespread use of wind power by fostering communication between the technical community and the general public

The Biomass Energy Institute, Inc.—P.O. Box 129, Postal Station C, Winnipeg, Manitoba, Canada R3M 3S7 (204) 284-0472

Concentrates on solar energy, anaerobic digestion, methane, thermal efficiency improvement, and renewable energy; will answer inquiries, make referrals to other sources of information, and permit use of library collection free

Publications: *The Biomass Energy Guidebook*, bibliographies and reprints

Center for Renewable Resources (CRR)—1001 Connecticut Ave. NW, Fifth Floor, Washington, DC 20036 (202) 466-6880

Nationwide network of citizen groups, clearinghouse for model solar projects, solar policy research

Citizens/Labor/Energy Coalition—600 W. Fullerton St., Chicago, IL 60614 (312) 929-9125

Coalition of over 100 labor unions and public interest groups; focuses on utility rate reform, creating jobs through developing renewable resources, keeping oil and gas prices affordable, and ensuring that the energy industry is safe for workers; has a Washington, D.C., office and five regional coordinators

Common Cause—2030 M St. NW, Washington, DC 20036 (202) 833-1200

A citizen lobbying organization with many interests including energy and nuclear power

Publication: *In Common-The Report from Washington* (monthly)

Consumer Action Now (CAN)—59 E. 53rd St., New York, NY 10022 (212)752-1220

A non-profit group dedicated to educating the public on alternative energy forms with major emphasis on solar energy and energy conservation

Consumer Federation of America—1012 14th St. NW, Suite 901, Washington, DC 20005 (202) 737-3732

Represents the consumer viewpoint in Congressional energy debates and public energy forums; promotes the establishment of fair petroleum prices and regulation of the natural gas industry

Critical Mass—P.O. Box 1538, Washington, DC 20540 (202) 546-4790

Citizen organization devoted to promoting public awareness of safe, efficient energy

Publication: *Critical Mass* (monthly)

Environmental Action—1346 Connecticut Ave. NW, Room 731, Washington, DC 20036 (202) 833-1845

Promotes energy conservation by lobbying for mass transit, returnable bottle legislation, and alternative power sources

Environmental Defense Fund, Inc.—162 Old Town Rd., East Setauket, NY 11733 (516) 751-5191

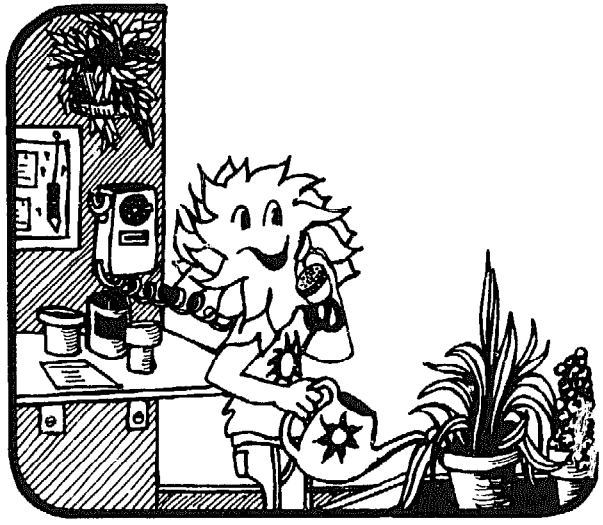
Conducts research and initiates litigation regarding electric and gas utility rates; involved in rate-making proceedings before state regulatory bodies

Publication: *EDF Newsletter* (bimonthly)

Friends Committee on National Legislation—245 2nd St. NE, Washington, DC 20002 (202) 547-4343

Quaker lobby

Publications: *FCNL Newsletter* (monthly); publishes information on strip mining, nuclear development, energy conservation and environmental policies as they impact the poor



Friends of the Earth—124 Spear St., San Francisco, CA 94105 (415) 495-4770; 620 C St. SE, Washington, DC 20003 (202) 543-4312; 72 Jane St., New York, NY 10014 (212) 675-5911

Promotes preservation, restoration, and rational use of the Earth

Publication: *Not Man Apart* (monthly)

The Garden Clubs of America—598 Madison Ave., New York, NY 10022 (212) 753-8287

Conservation of natural resources, land use

Publication: *The World Around You*

General Federation of Women's Clubs—1734 North St. NW, Washington, DC 20036 (202) 347-3168

Conservation education, environmental responsibility

The Institute for Local Self-Reliance—1717 18th St. NW, Washington, DC 20009 (202) 232-4108

Neighborhood projects, community law, appropriate technology, economics

Publications: *Self-Reliance* (monthly newsletter), books

Izack Walton League of America—1800 N. Kent St., Suite 806, Arlington, VA 22209 (703) 528-1818

Citizen action group which promotes conservation of natural resources including energy conservation; supports regulation of strip mining

Publication: *Outdoor America* (monthly)

League of Conservation Voters—317 Pennsylvania Ave. SE, Washington, DC 20003 (202) 547-7200

Nonpartisan, national political campaign committee promoting the election of public officials who will work for a healthy environment

Publications: *How Your Congressmen Voted on Critical Environmental Issues* ($1.00), *How Your Senators Voted on Critical Environmental Issues* ($1.00)

The League of Women Voters (LWV)—1730 M St. NW, Washington, DC 20036 (202) 296-1770

Voluntary organization of men and women dedicated "to promoting political responsibility through informed and active participation of citizens in government"; state Leagues in 50 states, District of Columbia, Puerto Rico, and the Virgin Islands; Energy Education program assists local leagues in bringing energy issues to their members (Also see listing under **sources of bulk information.**)

Publications: *Energy Fact Sheets* (a series of briefs aimed at helping readers think and talk about energy problems)

National Association of Home Builders (NAHB)—15th and M Sts. NW, Washington, DC 20005 (202) 452-0200

Resource group for builders, has library with material on energy conservation and solar; provides information on thermal performance guidelines for single-family dwellings and apartments in various geographic regions

National Audubon Society—950 3rd Ave., New York, NY 10022 (212) 832-3200

Wildlife and environmental conservation education organization with 300 local chapters

Publications: *Audubon, Audubon Leader, American Birds: Incorporating Audubon Field Notes*

National Association of Solar Contractors—910 17th St. NW, Suite 928, Washington, DC 20006 (202) 785-3244

Fosters solar installation standards and provides consumers with a warranty policy to cover installations by members

National Center for Voluntary Action—1214 16th Ave. NW, Washington, DC 20036 (202) 467-5560

Affiliated with a network of over 300 Voluntary Action Centers; monitors legislation and regulations related to volunteering

Publication: *Voluntary Action Leadership* (quarterly magazine)

National Consumer Energy Center, Inc.—1990 M St. NW, Washington, DC 20036 (202) 659-0404

Monitors congressional activity and lobbies for consumers on oil and gas issues

National Council of Churches Energy Project—475 Riverside Dr., Room 572, New York, NY 10027 (212) 870-2386

Primarily an educational organization; has developed church energy conservation programs and church services related to energy

Publications: *Energy and Ethics, Energy Suppliers, Energy and the New Poverty,* others

National Council of Senior Citizens—1511 K St. NW, Washington, DC 20036 (202) 347-8800

Advocacy organization for senior citizens' interests in Congress; involved in legislation dealing with decontrol of oil and utility rate reform

National Farmers Union—1012 14th St. NW, Washington, DC 20005 (202) 628-9774; 12025 E. 45th Ave., Denver, CO 80251 (303) 371-1760

Educational and advocacy organization for issues affecting farmers including allocation of fuels, decontrol, alternative energy sources

National Information Center on Volunteerism (NICOV)—P.O. Box 4179, Boulder, CO 80306 (303) 774-0492

Dedicated to encouraging and facilitating involvement of more people in volunteer activities; provides leadership training, information service, consultation, and program evaluation for volunteer organizations

National Intervenors—1757 S St. NW, Washington, DC 20009 (202) 543-1642

Coalition groups nationwide working to reform present energy policies; clearinghouse service on nuclear energy and alternative energy sources

National Urban League—500 E. 62nd St., New York, NY 10021 (212) 644-6539

National civil rights and social service organization concerned with the plight of Blacks and other minorities in urban areas and the impact of the energy crisis on the urban poor; local affiliates in 115 cities

National Wildlife Federation—1412 16th St. NW, Washington, DC 20036 (202) 797-6800

National conservation organization with local affiliates; one area of interest is energy

Publication: *Conservation News* (biweekly)

Natural Resources Council of America—1025 Connecticut Ave. NW, Suite 911, Washington, DC 20036 (202) 223-1536

Management of natural resources

The North Star Fund—1133 Broadway, Room 1427, New York, NY 10010 (212) 924-7660

Recently formed alternative foundation for social and political change; emphasizes low-income community and workplace organizing projects

Public Interest Research Group—2000 P St. NW, Washington, DC 20036 (202) 833-9700

Lobbying, nuclear, public education materials, energy, and environmental topics; has affiliates in most states

Publications: *Critical Mass* (monthly), *A Citizen's Handbook on Solar Energy, The Cost of Nuclear Power*

Scientists' Institute for Public Information (SIPI)—560 Trinity Ave., St. Louis, MO 63130 (314) 863-6560

Economic implications of environmental issues

Publication: *Environment* (monthly)

Sheet Metal and Air Conditioning Contractors National Association (SMACNA)—8224 Old Court House Rd., Vienna, VA 22180 (703) 790-9890

Ventilating, air handling, warm air heating, sheet metal fabrication, and solar installations; refers inquirers to local contractors experienced in solar installation; distributes a home-study course on the fundamentals of solar heating

Publications: *Air Pollution Control, Standards and Specifications, Heating and Air Conditioning: Installation Standards,* numerous publications on HVAC

Sheet Metal Workers International Association/Training Fund—1750 New York Ave. NW, Washington, DC 20006 (202) 296-5880

Probably the most active labor group working on solar energy issues; is providing solar technology training for its members and has a number of solar books and films available

Sierra Club—324 C St. SE, Washington, DC 20003 (202) 547-1144

Energy lobbying, thermal efficiency, conservation, alternative energy, protection of wilderness from questionable energy development, 48 local chapters

Solar Energy Industries Association (SEIA)—1001 Connecticut Ave. NW, Suite 800, Washington, DC 20036 (202) 293-2981

Trade organization for manufacturers, distributers, and designers of solar energy equipment; promotes and lobbies for increased use of solar energy

Publications: *Solar Industry Newsletter* (monthly), *Solar Energy Industry Directory, Buyers Guide*

Solar Energy Institute of America—1110 6th St. NW, Washington, DC 20001 (202) 667-6611

Membership organization, will answer inquiries and make referrals; maintains list of speakers, performs market studies or analyses for a fee

Publications: *Solar Energy Source Book, Solar Energy Intelligence Report*

Solar Lobby—1001 Connecticut Ave. NW, Fifth Floor, Washington, DC 20036 (202) 466-6350

National legislative lobbying organization

The Wood Energy Institute -- Box 800, Camden, ME 04843 (207) 236-4841

Promotes use of fiber and wood resources through seminars, exhibits, studies and public information programs

Publications: *Wood 'N Energy Newsletter* (6 times yearly)

Zero Population Growth (ZPG) —1346 Connecticut Ave. NW, Washington, DC 20036 (202) 785-0100

Nationwide membership organization concerned with limiting human population and food consumption and reducing depletion of material and energy resources

federal agencies

ACTION—c/o VISTA, 806 Connecticut Ave. NW, Washington, DC 20525

VISTA-ACTION promotes the use of solar technologies in other nations through the work of its volunteers. Plans are developing for using VISTA volunteers to assist in the development of urban and rural solar community development projects.

Community Services Administration (CSA)—1200 19th St. NW, Washington, DC 20506

CSA, primary sponsor of the National Center for Appropriate Technology, is spearheading the bulk of current Federal programs aimed at making solar technologies available to low-income persons. Efforts include support of a number of "sweat-equity" programs.

Council on Environmental Quality (CEQ) —722 Jackson Place NW, Washington, DC 20006

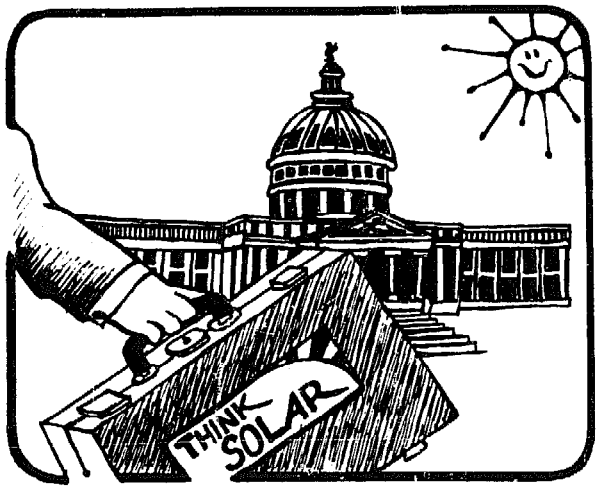
CEQ has taken an aggressive policy stance on solar development. Its recent report *Solar Energy: Promise & Progress* suggests that a reasonable national goal would be 25 percent solar by the year 2000.

Department of Agriculture (USDA)—14th and Independence Ave. SW, Washington, DC 20250

The department is coordinating with the Department of Energy a number of solar programs for farms including crop drying, solar irrigation, use of greenhouses, solar food processing, and solar heating of animal shelters. USDA is also responsible for the demonstration of gasohol production from farm crop wastes.

Department of Commerce (DOC)—14th St. NW, Washington, DC 20230

DOC is funding biomass distillation plants through the Office of Minority Business Enterprises; its National Technical Information Service provides reprints of solar energy studies and reports by the Federal government and its contractors.



Department of Energy (DOE)—Washington, DC 20545

DOE is the Federal agency with responsibility for research on new and traditional sources of energy, policy development, and informational services. The agency's first and second annual reports and plans of action, as well as lists of other publications, are available on request. Speakers from the agency are also available in some areas.

As the lead Federal solar energy agency, DOE coordinates research, development and demonstration programs in the areas of active and passive dispersed solar technologies, power towers, solar power satellites, solar concentrators, solar storage systems, photovoltaics, and indirect solar sources (wind, hydroelectric, biomass). The agency also headed up the White House's Domestic Policy Review of the National Solar Strategy.

The two DOE offices with the most interest in currently available solar applications are:

Office of Conservation and Solar Applications—Department of Energy, 20 Massachusetts Ave., Washington, DC 20545

This office has primary responsibility for accelerating the use of solar technologies that are currently technically and economically feasible for widespread use today. Particular emphasis is being given to programs for domestic hot water and passive solar use.

Office of Consumer Affairs—Room 8G031, Forrestal Building, 1000 Independence Ave. SW, Washington, DC 20585

A branch of the Intergovernmental Relations and Educational Secretariat, this office is primarily responsible for ensuring that the public has input into the DOE policymaking process. It publishes a bimonthly newsletter, *Energy Consumer*, and produced the film *The Great Adventure*.

Besides the Washington, D.C., office, there are 10 regional DOE offices. They administer DOE programs at a regional level (e.g., The Appropriate Technology Small Grants Program) and assist citizens living in each region to get information from DOE.

Department of Energy, Region I
150 Causeway St.
Boston, MA 02114
(617) 223-6748

Department of Energy, Region II
26 Federal Plaza, Room 3200
New York, NY 10007
(212) 264-0560

Department of Energy, Region III
1421 Cherry St., Tenth Floor
Philadelphia, PA 19102
(215) 597-3609

Department of Energy, Region IV
1655 Peachtree St. NE
Atlanta, GA 30309
(404) 881-2526

Department of Energy, Region V
175 W. Jackson Blvd., Room A-333
Chicago, IL 60604
(312) 353-8515

Department of Energy, Region VI
P.O. Box 35228
2626 W. Mockingbird Lane
Dallas, TX 75235
(214) 749-7621

Department of Energy, Region VII
Regional Representative's Office
Management Division (VII)
324 E. 11th St.
Kansas City, MO 64106
(816) 374-5182

Department of Energy, Region VIII
Regional Representative's Office
P.O. Box 26247, Belmar Branch
1075 S. Yukon St.
Lakewood, CO 80226
(303) 234-2420

Department of Energy, Region IX
111 Pine Street, Third Floor
San Francisco, CA 94111
(415) 556-7210

Department of Energy, Region X
Regional Energy Information Center
Rm. 1992 Federal Building
915 Second Ave.
Seattle, WA 98174
(206) 442-7285

Many of the publications lsited for DOE in the **sources of bulk information** section are available through these regional offices.

Department of Housing & Urban Development (HUD)—451 7th St. SW, Washington, DC 20410

The department manages DOE's residential demonstrations and efforts to encourage the development of a residential solar market, and coordinates the Solar Home Improvement Loans program and the Community Development Block Grant programs.

Environmental Protection Agency (EPA) —400 M St. SW, Washington, DC 20460

EPA is concentrating on indirect solar development from municipal solid waste, sewage, and agricultural and forestry residues.

Federal Trade Commission (FTC)—Pennsylvania at 6th St. NW, Washington, DC 20580

FTC's Bureau of Competition investigates problems of utility involvement in solar development, horizontal integration of large oil and other energy firms in solar technologies, problems of solar patent rights and consumer warranties for solar equipment. The Bureau of Energy and Product Information investigates misleading and false information regarding energy conservation and solar products.

Library of Congress, Science and Technology Division—10 1st St. SE, Washington, DC 20540

The library has material on solar, wind, and tidal power; answers questions from the public and makes referrals.

National Aeronautics & Space Administration (NASA)— Independence Ave. SW, Washington, DC 20546

NASA is cooperating with DOE to develop photovolatics, wind energy, and space power satellite programs.

National Center for Appropriate Technology (NCAT)—P.O. Box 3838, Butte, MT 59701

NCAT develops and applies appropriate technologies to the energy-related needs and problems of low-income people and communities, and is funded by the Community Services Administration (CSA). Its primary areas of research and technical assistance include solar energy applications, agricultural waste recycling, biomass conversion, housing, and transportation.

regional solar energy centers

In addition to the national Solar Energy Research Institute, the Department of Energy funds four Regional Solar Energy Centers (RSECs) whose focus is moving solar technology into the marketplace. RSECs work closely with state energy offices, industry, and varied organizations within their regions to provide general solar information and technical assistance through on-site libraries, computerized data systems, seminars and workshops, and distribution of reports. Scope of services will vary for each region.

Mid-American Solar Energy Complex (MASEC)—1256 Trapp Rd., Eagan, MN 55121 (612) 452-5300

States served: Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin

Northeast Solar Energy Center (NESEC) —70 Memorial Dr., Cambridge, MA (617) 661-3500

States served: Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont

Southern Solar Energy Center (SSEC)—Exchange Place, Suite 1250, 2300 Peachford Rd., Atlanta, GA 30338 (404) 458-8765

States served: Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, Puerto Rico, South Carolina, Tennessee, Texas, Virginia, West Virginia, Virgin Islands

Western Solar Utilization Network (WSUN)—921 S.W. Washington, Suite 160, Portland, OR 97205 (503) 241-1222

States served: Alaska, American Samoa, Arizona, California, Colorado, Guam, Hawaii, Idaho, Micronesia, Montana, Nevada, New Mexico, Northern Marianas, Oregon, Utah, Washington, Wyoming

Small Business Administration (SBA)—1441 L St. NW, Washington, DC 20416

SBA recently received Congressional authorization to provide up to $30 million in low-interest loans to small solar firms.

Solar Energy Research Institute (SERI)—1536 Cole Blvd., Golden, CO 80401 (303) 231-1000

SERI's mandate is to perform research, development, and related functions in support of the national solar energy program. Its work involves all of the solar energy technologies and all aspects of the process of moving a technology through initial research stages to utilization.

SERI performs the following:

- SERI helps the U.S. Department of Energy develop national solar energy program plans and strategies.
- SERI serves as objective evaluator and analyst of the content, progress, and direction of the national solar energy effort.
- SERI conducts and manages national and international solar research, development, and demonstration projects.
- SERI conducts lead programs in solar information dissemination, education and training, and technology utilization and application.

SERI is currently carrying out research, development, demonstration, and information programs in these solar technologies:

- Photovoltaics
- Clean fuels from biomass
- Dispersed wind energy systems
- Decentralized solar energy applications
- Solar energy storage systems
- Solar industrial process heat
- Passive solar technologies
- Central solar power systems

A major ongoing effort at SERI is the collection of all information, reports, and films that deal with technical and non-technical topics pertinent to solar energy. This information is being collected to form the Solar Energy Information Data Bank (SEIDB) and the Solar Energy Information Center (SEIC). Both of these collections are available for use by interested parties through the Regional Solar Energy Centers.

federal information centers and telephone tielines*

To assist you in avoiding long distance charges in trying to contact Federal agencies, these Toll-Free Numbers will connect you with an operator who can then put you in touch with the appropriate Federal agency.

The tieline numbers are toll-free only in the specified city.

*Information taken from: **United States Government Manual 1978/79.** Office of the Federal Register, National Archives and Records Service, General Services Administration. Washington, D.C.: U.S. Government Printing Office; 1978. (902 p.) $6.50 (stock no. 022-003-00948-5).

State/City	Telephone	Address	Toll-free Tieline To
Alabama:			
Birmingham	322-8591		Atlanta, Ga.
Mobile	438-1421		New Orleans, La.
Arizona:			
Tucson	622-1511		Phoenix, Ariz.
Phoenix	602-261-3313	Federal Bldg. 230 N. 1st Ave., 84025.	
Arkansas: Little Rock	378-6177		Memphis, Tenn.
California:			
Los Angeles	213-688-3800	Federal Bldg., 300 N. Los Angeles St., 90012.	
Sacramento	916-440-3344	Federal Bldg.-U.S. Courthouse, 650 Capitol Mall, 95814.	
San Diego	714-293-6030	Government Information Center, Federal Bldg., 880 Front St., 92188.	
San Francisco	415-556-6600	Federal Bldg.-U.S. Courthouse, 450 Golden Gate Ave., 94102.	
San Jose	275-7422		San Francisco, Calif.
Santa Ana	836-2386		Los Angeles, Calif.
Colorado:			
Colorado Springs	471-9491		Denver, Colo.
Denver	303-837-3602	Federal Bldg.-U.S. Courthouse, 1961	
Pueblo	544-9523		Denver, Colo.
Connecticut:			
Hartford	527-2617		New York, N.Y.
New Haven	624-4720		New York, N.Y.
District of Columbia:	202-755-8660	7th and D Sts. SW., 20407.	
Florida:			
Miami	305-350-4155	Federal Bldg., 51 SW. 1st Ave., 33130.	
St. Petersburg	813-893-3495	William C. Cramer Federal Bldg., 144 Ave. S., 33701.	
Tampa	229-7911		St. Petersburg, Fla.
Georgia: Atlanta	404-526-6891	Federal Bldg., 275 Peachtree St. NE., 30303.	
Hawaii: Honolulu	808-546-8620	300 Ala Moana Blvd., Box 300, 96850.	
Illinois: Chicago	312-353-4242	Everett McKinley Dirksen Bldg., Room 252, 219 S. Dearborn St., 60604.	
Indiana:			
Gary	883-4110		Indianapolis, Ind.
Indianapolis	317-269-7373	Indianapolis Federal Bldg., 575 N. Pennsylvania St., 46204.	
Iowa: Des Moines	284-4448		Omaha, Nebr.
Kansas:			
Topeka	297-2866		Kansas City, Mo.
Wichita	263-6931		Kansas City, Mo.
Kentucky: Louisville	502-582-6261	Federal Bldg., 600 Federal Place, 40202	
Louisiana:			
New Orleans	504-589-6696	Federal Bldg. 701 Loyola Ave., 70113.	
Maryland: Baltimore	301-962-4980	Federal Bldg., 31 Hopkins Plaza, 21201.	
Massachusetts:			
Boston	617-223-7121	John F. Kennedy Federal Bldg., Lobby, first floor, Cambridge St., 02203.	
Michigan:			
Detroit	313-226-7016	McNamara Federal Bldg., 447 Michigan Ave., 48226.	
Grand Rapids	451-2628		Detroit, Mich.
Minnesota:			
Minneapolis	612-725-2073	Federal Bldg.-U.S. Courthouse, 110 S. 4th St., 55401.	
Missouri:			
Kansas City	816-374-2466	Federal Bldg, 601 E. 12th St., 64106.	
St. Joseph	233-8206		Kansas City, Mo.
St. Louis	314-425-4106	Federal Bldg., 1520 Market St., 63103.	
Nebraska: Omaha	402-221-3353	Federal Bldg.-U.S. Post Office and Courthouse, 215 N. 17th St., 68102.	
New Jersey:			
Newark	201-645-3600	Federal Bldg., 970 Broad St., 07102.	
Paterson/Passaic	523-0717		Newark, N.J.
Trenton	396-4400		Newark, N.J.
New Mexico:			
Albuquerque	505-766-3091	Federal Bldg.-U.S. Courthouse, 500 Gold Ave. SW., 87101.	
Santa Fe	983-7743		Albuquerque, N. Mex.
New York:			
Albany	463-4421		New York, N.Y.
Buffalo	716-846-4010	Federal Bldg., 111 W. Huron St., 14202.	
New York	212-264-4464	Federal Office Bldg., 26 Federal Plaza, 10007.	
Rochester	546-5075		Buffalo, N.Y.
Syracuse	476-8545		Buffalo, N.Y.
North Carolina:			
Charlotte	376-3600		Atlanta, Ga.
Ohio:			
Akron	375-5638		Cleveland, Ohio.
Cincinnati	513-684-2801	Federal Bldg., 550 Main St., 45202.	
Cleveland	216-522-4040	Federal Bldg., Room 137, 1240 E. 9th St., 44199.	
Columbus	221-1014		Cincinnati, Ohio.
Dayton	223-7377		Cincinnati, Ohio.
Toledo	241-3223		Cleveland, Ohio.
Oklahoma:			
Oklahoma City	405-231-4868	U.S. Post Office and Courthouse, 201 NW. 3rd St., 73102.	
Tulsa	548-4193		Oklahoma City, Okla.
Oregon: Portland	503-221-2222	Federal Bldg., Room 109, 1220 SW. 3rd Ave., 97204.	
Pennsylvania:			
Philadelphia	215-597-7042	William J. Green Jr. Federal Bldg., 600 Arch St., 19106.	
Allentown/Bethlehem	821-7785		Philadelphia, Pa.
Pittsburgh	412-644-3456	Federal Bldg., 1000 Liberty Ave., 15222.	
Scranton	346-7081		Philadelphia, Pa.
Rhode Island:			
Providence	331-5565		Boston, Mass.
Tennessee:			
Chattanooga	265-8231		Memphis, Tenn.
Memphis	901-521-3285	Clifford Davis Federal Bldg., 167 N. Main St., 38103.	
Nashville	242-5056		Memphis, Tenn.
Texas:			
Austin	472-5494		Houston, Tex.
Dallas	749-2131		Fort Worth, Tex.
Fort Worth	817-334-3624	Fritz Garland Lanham Federal Bldg., 819 Taylor St., 96102.	
Houston	713-226-5771	Federal Bldg.-U.S. Courthouse, 515 Rusk Ave., 77002.	
San Antonio	224-4471		Houston, Tex.
Utah:			
Ogden	399-1347		Salt Lake City, Utah.
Salt Lake City	801-524-5353	Federal Bldg., Room 1205, 125 S. State St., 84138.	
Virginia:			
Newport News	244-0480		Norfolk, Va.
Norfolk	804-441-6723	Stanwick Bldg., Room 106, E. Va. Beach Blvd., 23502.	
Richmond	643-4928		Norfolk, Va.
Roanoke	982-8591		Norfolk, Va.
Washington:			
Seattle	206-442-0570	Federal Bldg., 915 2nd Ave., 98174.	
Tacoma	383-5230		Seattle, Wash.
Wisconsin:			
Milwaukee	271-2271		Chicago, Ill.

indexes

publications index

films/slide shows index

authors index

newsletters/magazines index

state, regional, national, federal organizations index

Feedback

Please Take a Few Moments and Give Us Your Thoughts on reaching up, reaching out:

Your feedback can help us plan additional projects which might be valuable to community groups.

Name _____ Name of group you are associated with: _____

Address _____ _____

_____ What does your group do? _____

_____ Address (if different from your own) _____

Telephone No. _____ _____

How did you hear of the manual? _____

Where did you get a copy? _____

Rate the Sections

1. Which section did you find most beneficial? (Rate on a scale of 1-3, with 1 being the most beneficial)

an events sampler	1 2 3
an organizing primer	1 2 3
guide to selected resources	1 2 3

2. What did you find most useful in each section?

an events sampler _____

an organizing primer _____

guide to selected resources _____

3. What did you find least useful in each section?

an events sampler _____

an organizing primer _____

guide to selected resources _____

4. Please rank each section in terms of readability, clarity, and format. 1=a high rating; 5=a low rating.

an events sampler	1 2 3 4 5
an organizing primer	1 2 3 4 5
guide to selected resources	1 2 3 4 5

5. Please rank the book overall in terms of:

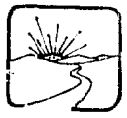
new information	1 2 3 4 5	assisting community groups in producing energy conservation/solar events?	1 2 3 4 5
tone	1 2 3 4 5	readability	1 2 3 4 5
format	1 2 3 4 5		
practicality	1 2 3 4 5		

6. Did this manual give you some information you didn't know where to go for before? What?

7. Did you use this book to put on an event, or are you using it to plan one? Describe the event (send information about it if you wish).

_____

8. Please circle the symbol that best describes your organization.

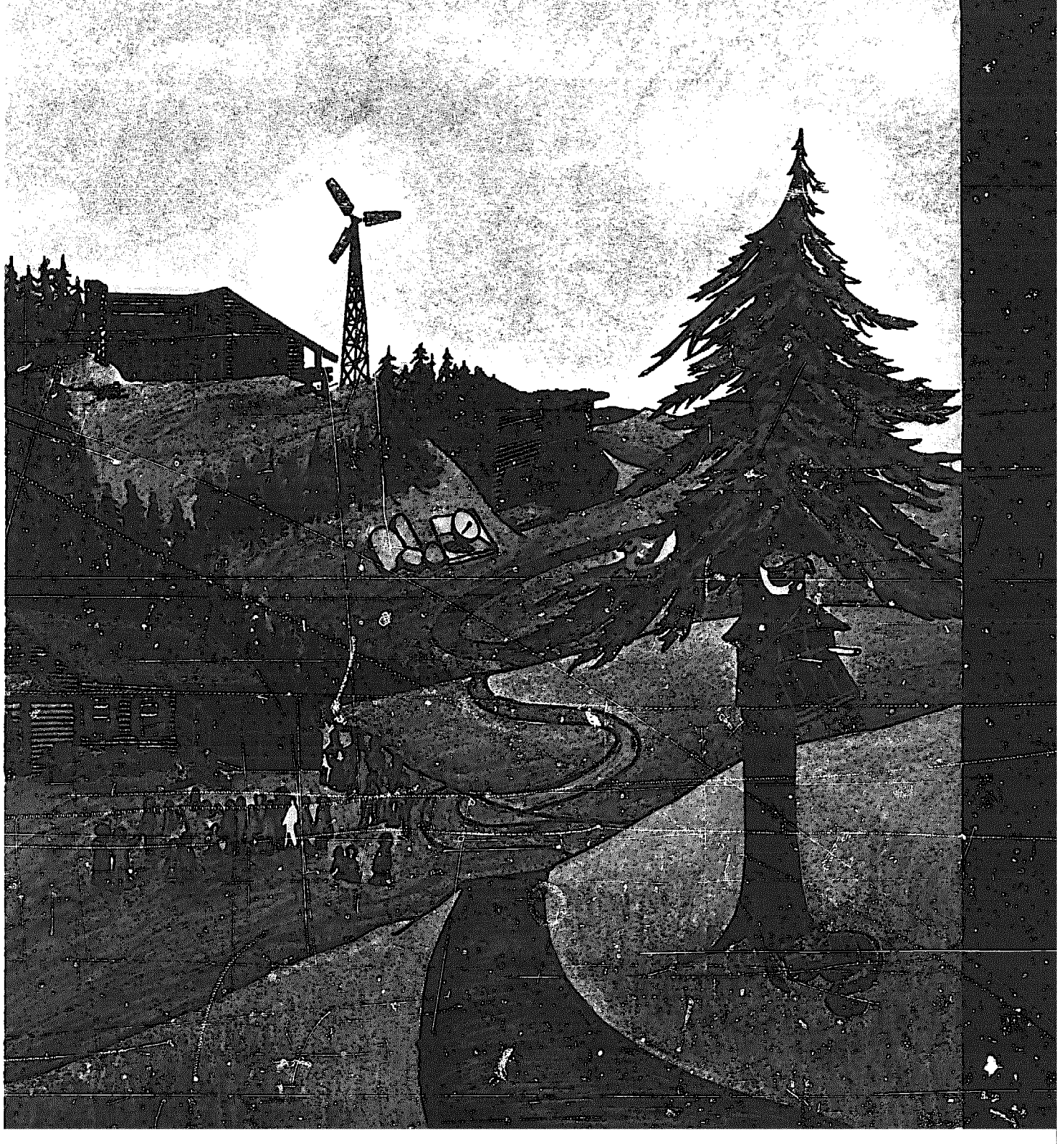


9. Additional Comments

Place Stamp Here

Rebecca Vories
reaching up, reaching out
Solar Energy Research Institute
1617 Cole Boulevard
Golden, CO 80401

☆U.S. GOVERNMENT PRINTING OFFICE 1979 — 681-530



Solar Energy Research Institute
A Division of Midwest Research Institute

1617 Cole Boulevard
Golden, Colorado 80401

Operated for the
U.S. Department of Energy
under Contract No. EG-77-C-01-4042

SERI/SP-62-326