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COMMONWEALTH OF MASSACHUSETTS

Executive Office of Consumer Affairs



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Solar Action Office

Room 1413 One Ashburton Place Boston, Massachusetts 02108 617-727-7297

Christine B. Sullivan
Secretary

William C. Osborn
Director

December, 1978

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Compiled by: Patricia Moriarty

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The following bibliography was compiled by Patricia Moriarty with the aid and expertise of the entire Solar Action Office. While not all of the sources of information in the solar field could possibly be included, we feel that we have mentioned several of the most comprehensible and up-to-date publications in this rapidly expanding area of interest. We hope it will help you in your solar endeavor, and we welcome any suggestions for future updates of this bibliography.

SOURCE KEY

BRI: Brace Research Institute
 MacDonald College of
 McGill University
 Ste. Anne de Bellevue, Quebec
 H9X 1C0

EARS: Environmental Action Reprint Service
 2239 East Colfax
 Denver, CO 80206

GPO: Superintendent of Documents
 Government Printing Office
 Washington, DC 20402

NCAT: National Center for Appropriate Technology
 P.O. Box 3838
 Butte, MT 59701

NESEA: New England Solar Energy Association
 P.O. Box 541
 22 High Street
 Brattleboro, VT 05301

NSHCIC: National Solar Heating and Cooling Information Center
 P.O. Box 1607
 Rockville, MD 20850

NTIS: National Technical Information Service
 5285 Port Royal Road
 Springfield, VA 22151

TEA: Total Environmental Action
 Church Hill
 Harrisville, NH 03450

Zomeworks: Zomeworks Corp.
 Box 712
 Albuquerque, NM 87103

"Building the Solar Home," NSCHIC. 1978, 36 pp., free.

Designing and Building A Solar Home, D. Watson. Garden Way Publishing, Charlotte, VT 05445, 1977, 240 pp., \$6.95. Practical clearly-written book covering all aspects of solar house design, including siting, equipment, types of systems and costs.

Design with Climate, V. Olgyay, Princeton University Press, Princeton, NJ 08540, 1963, \$28.50. Climatic and site factors affecting passive design. Includes tables and charts to aid calculations.

"The Kelbaugh House," D. Kelbaugh. Solar Age, 1(7): 19-23, July 1976.

"The Live-in Solar Collector," B. Anderson. Solar Age, 1(6): 19-23, June 1976.

"Low Technology Solar Homes that Work with Nature," T. Price. Popular Science, 209(6): 94-98, December 1976.

Natural Solar Architecture-A Passive Primer, David Wright. Van Nostrand Reinhold, 135 West 50th Street, New York, NY 10020, 1978, 265 pp., \$7.95. Ranges from general passive design concepts to easy calculations with charts and tables.

"Passive Design Ideas for the Energy Conscious Architect/Builder/Consumer," NSHCIC, 1978, 90 pp./52 pp./32 pp., free. Presents interesting and generally good ideas although some are questionable in terms of feasibility.

Passive Solar Building: A Compilation of Data and Results, R.P. Stromberg and S.O. Woodall, Sandia Labs. NTIS, 1977, 71 pp., \$5.25. State-of-the-art overview exploring the thermal storage wall, the attached solar greenhouse, the roof pond, the convection loop, and direct gain. Includes specific examples and test results.

Solar Dwelling Design Concepts, AIA. GPO Stock No. 023-000-00334-1, \$2.30.

Solar Heated Homes for New England and Other North Temperate Climates, Massdesign. 4th ed., 1976, 68 pp., \$7.50, (NESEA). Descriptions of traditional cape and saltbox designs with 3 solar sub-systems. A clear presentation of optimized design, using computers to yield performance data.

Solar Home Book, B. Anderson and M. Riordan. Cheshire Books, Harrison, NH 03450, 1976, 304 pp., \$8.50. Covers all aspects of solar home heating including direct and indirect systems, do-it-yourself solar water heating, retrofitting and social cultural implications.

Sun-Earth, R.L. Crowther et al. Crowther/Solar Group, Denver, CO 80206, 1976, 232 pp., \$12.95. Survey of architecture and its relation to the natural environment; presents cost-effective concepts for use of free natural energy sources in homes and other buildings.

Buy Wise Guide to Solar Heat, F. Hickok. Hour House, P.O. Box 40082, St. Petersburg, FL 33743, 1976, 121 pp., \$9.00. The consumer's guide to solar heating and cooling: what to buy, what to do, what to beware of.

Buying Solar, Federal Energy Administration. June 1976, 71 pp., GPO Stock No. 041-018-00120-4, \$1.85.

An Economic Analysis of Solar Water and Space Heating, Mitre Corp. GPO Stock No. 060-000-0038-7, \$1.85. Economic feasibility of solar in various parts of the country compared with conventional fuel costs.

Home Mortgage Lending and Solar Energy, D. Barnett et al. GPO Stock No. 023-000-00387-2.

"Selling the Solar Home," NSHCIC, 1978, 37 pp., free.

"Solar Energy and Electric Utilities-Should They Be Interfaced?" J.G. Asbury & R.O. Mueller. Science 195(4277) 445-450, February 4, 1977. Technical study exploring how solar can reduce electric heat load and presents the issue of solar vs. electric generation.

Solar Energy for Space Heating and Hot Water, GPO Stock No. 060-000-00018-2, \$.35.

Solar Energy in America's Future, A Preliminary Assessment, GPO Stock No. 060-000-0051-4, \$2.00.

- Energy Book #1 and #2: Natural Sources and Backyard Applications, J. Prenis (ed), Running Press, Philadelphia, PA 19103. Book #1, 1975, 112 pp., \$4.00. Book #2, 1977, 125 pp., \$5.00. Review of possible alternative sources of energy.
- Energy for Survival, W. Clark. Doubleday and Co. Inc., New York, NY 11530, 1974, 652 pp., \$4.95. Energy sources in the past, present, and prospects for the future; major section on solar energy.
- Energy Primer, Portola Institute. Whole Earth Truck Store, 558 Santa Cruz Avenue, Menlo Park, CA 94025, 1977, 200 pp., \$5.50. Comprehensive book about renewable sources of energy. The focus is on small-scale systems which can be applied to the needs of the individual, small group, or community.
- The Fuel Savers, Dan Scully, Don Prowler, Bruce Anderson and Douglas Mahone. Northwest New Jersey Community Action Program, Inc., Prospect and Marshall Street, Phillipsburg, NJ 08865, 1976, 60 pp., \$2.75. Do-it-yourself guide to winterizing the home. Includes simple methods of solar retrofit.
- Living with Energy, Ronald Alves. Penguin Books, New York, NY 10022, 1978, 128 pp., \$5.95. Includes color photographs of solar-heated buildings throughout the country.
- New Low-Cost Sources of Energy for the Home, Peter Clegg. Garden Way Publishing Co., Charlotte, VT 05445, 1976, \$5.95. Presents technical explanations and practical information about conserving energy at home.
- Other Homes and Garbage: Design for Self-Sufficient Living, J. Lecki et al. Charles Scribner and Sons, New York, NY 10017, 1975, 302 pp., \$9.95. Practical approach for constructing solar panels and ovens, as well as windmills and water wheels; emphasizes renewable energy sources.
- The Poverty of Power: Energy and the Economic Crises, B. Commoner. A. Knopf, New York, NY 10022, 1974, 320 pp., \$8.95. The energy crisis as seen by an environmentalist; covers use and misuse of fossil and nuclear energy.
- Survival Scrapbook #3, S.A. Szczelkun. Schoken Books, New York, NY, 1974, 50 pp., \$3.95. Alternative energy for the homesteader. Includes simple designs for solar collectors and stills.

Direct Use of the Sun's Energy, F. Daniels. Ballantine Books, Inc., Westminster, MD 21157, 1964, 271 pp., \$1.95. Covers all aspects of solar energy research and applications; provides a general introduction to the subject.

Fundamentals of Solar Heating, Sheet Metal and Air Conditioning Contractors National Association. NTIS, 1978, \$10.00. (#HCP-M4038-010UC-59) Correspondence course manual in sizing, installing, and servicing solar systems; prepared for DOE.

Soft Energy Paths: Toward a Durable Peace, Amory Lovins. EARS, 1977, 231 pp., \$6.95. Presents the consequences of choosing between soft technology paths (renewable energy sources) and the hard technologies (nuclear and fossil fuels); explores capital costs, socio-politics and nuclear proliferation.

The Solar Decision Book, Richard H. Montgomery with Jim Budnick. Dow Corning Corp., Department 2268, Midland, MI 48640, 1978, \$10.00. Step-by-step advice on how to choose the right system, including financing and details on collector materials. Appendix presents heat loss calculations, sizing charts and conversion factors.

Solar Energy Handbook for 1978, editors of Popular Science. 112 pp., \$1.95. Reprints of solar articles.

Sunspots: Collected Facts and Solar Fiction, Steve Baer. Zomeworks, 1975, 115 pp., \$3.00. Collected essays ranging from highly technical to humorous.

- The Food and Heat Producing Solar Greenhouse, R. Fisher and B. Yanda. John Muir Publications, P.O. Box 613, Santa Fe, NM 87501, 1976, 161 pp., \$6.50. Do-it-yourself including a survey of 30 innovators in the field.
- "Greenhouse Kits for All-Season Gardening," G. Stone. Popular Science, 208(4): 122-125, 142-148, April, 1976.
- "How to Heat Your Swimming Pool Using Solar Energy," BRI. L-3, 1973, 4 pp., \$2.00. Do-it-yourself leaflet.
- "How to Make a Solar Cabinet/Dryer for Agricultural Produce," BRI. L-6, 1973, \$2.00. Do-it-yourself leaflet.
- "How to Make a Solar Still," BRI. L-1, \$1.50. Do-it-yourself leaflet.
- "Plans for a Glass and Concrete Solar Still," BRI. T-58, \$3.50.
- "Simple Solar Still for the Production of Distilled Water," BRI. T-17, \$1.50. Technical Report.
- "The Solar Efficient Greenhouse—Means Growing More for Less," B. Yanda. Solar Engineering, 1(8): 12-14, October, 1976.
- The Solar Greenhouse Book, James C. McCullagh (ed.) Rodale Press, Emmaus, PA, 1978, 328 pp., \$8.95. Covers all aspects of general design, materials selection, heat storage options, insulation options, and greenhouse operations; discusses both attached and free-standing, with many examples.
- Solar Greenhouse: Design, Construction, and Operation. R. Fisher and B. Yanda. John Muir Publications, Santa Fe, NM, 87501, 1976, \$6.00.
- Solar Science Projects, D. Halacy. Scholastic Book Services, Englewood, NJ, 1974, 96 pp., \$.85. Easy-to-understand explanations of how to build solar-powered devices.
- "Solar Steam Cooker," BRI. L-2, 1972, 13 pp., \$2.00. Do-it-yourself leaflet.
- The Survival Greenhouse, James DeKorne, Peace Press, Inc., 3828 Willat Ave., Culver City, CA 90230, 1978 (2nd ed.), \$7.95. Complete guide to inexpensive building and maintaining a greenhouse; includes greenhouse basics, weather, photo period, hydroponics, insect control and aquaculture.

PERIODICALS

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Alternative Sources of Energy, Alternate Sources of Energy, Inc., Route 2, Box 90A, Milaca, MN 53453, Quarterly, \$10.00/year. Combination of articles, columns and features on many aspects of energy alternatives; serves as a clearinghouse for exchange of ideas and technologies.

New England Solar Energy Association Newsletter, P.O. Box 541, Brattleboro, VT 05301, Monthly, \$20/year.

New Mexico Solar Energy Association Newsletter, Barbara Francis, P.O. Box 2004, Santa Fe, NM 87501, \$10/year.

New Roots, P.O. Box 459, Amherst, MA 01002, Bi-monthly, \$8/year. New Roots hopes to encourage and coordinate appropriate technology activities, so that Northeastern residents will be able to satisfy food, fiber, housing, livelihood, and social needs.

People and Energy, Citizens' Energy Project, 1413 K Street, NW, 8th Floor, Washington, DC 20005, Monthly, \$10/year. News of Citizen Action on Energy and Appropriate Technology concerning energy, environment, and consumer issues.

Rain, 2270 NW Irving, Portland, OR 97210, 10 issues, \$10/year. Information access journals and reference service for people developing more satisfying patterns that increase local self-reliance.

Self-Reliance, Institute for Local Self-Reliance, 1717 18th Street, NW, Washington, DC 20009, Bi-monthly, \$6/year. News from around the country relevant to the movement toward urban decentralization.

Soft Energy Notes, International Project for Soft Energy Paths, Friends of the Earth, 124 Spear Street, San Francisco, CA 94105. Published irregularly, free. Annotated summaries derived from key findings of soft path studies.

Solar Age, Solar Vision, Inc., 200 East Main Street, Port Jervis, NJ 12771, Monthly, \$20/year. Brief articles on development in solar energy applications with emphasis on solar heating and cooling.

Solar Energy, Pergamon Press, Inc., Maxwell House, Fairview Park, Elmsford, NY 10523, Bi-monthly, \$100/year. (Included with membership in the International Solar Energy Society, \$20.00.) Contains scientific and engineering papers on all aspects of solar energy and technology, theory, and applications.

Solar Energy Intelligence Report, Business Publishers, Inc., P.O. Box 1076, Silver Springs, MD 20910, Bi-weekly, \$90/year. Covers the Washington beat in solar energy, including new developments, markets and meetings.

Solar Energy Update, NTIS, \$27.50. Monthly solar bibliography listing.

Solar Engineering, Solar Engineering Publishers, Inc., 8435 North Stemmons Freeway, Suite 880, Dallas, TX 75247, Monthly, \$15/year. Includes short descriptions of activities and developments in solar energy especially in the private sector and in the US.

Proceedings of the 1977 Annual Meeting American Section of the ISES, Vol.1, 3 books. Includes Solar Collectors; Heating and Collector Systems; and Socio-Economic Topics, Low Temperature Applications, Concentrating Collectors, posters, Solar Radiation, Storage, and Energy Conversion.

Application of Solar Technology to Today's Energy Needs, June, 1977, Office of Technology Assessment, Washington, DC, 20510.

Energy Conserving Solar Heated Greenhouses Conference, November 1977, Drew Gillett (ed). NESEA, 282 pp., \$9.00.

Proceedings of the 1977 Flat-Plate Solar Collector Conference, CONF-770253UC-59; Florida Solar Energy Center, Cape Canaveral, FL, Delbert Ward, March, 1978, 661 pp., \$13.50.

International Symposium on Controlled-Environment Agriculture, Merle H. Jenson. April, 1977, Environmental Research Laboratory, University of Arizona, Tuscon, AZ, 413 pp.

Passive Solar Heating and Cooling, Los Alamos Scientific Laboratory. NTIS, 1976, 355 pp., \$10.50 (#LA-6637-C). Condensing the proceedings of the First National Conference on Passive Solar Heating and Cooling, held in May 1976; includes reports on design techniques, performance of numerous buildings, controls, and economics.

Second National Passive Solar Heating and Cooling Conference Proceedings, Mid-Atlantic Solar Energy Association, 2233 Grey's Ferry Avenue, Philadelphia, PA 19146. July, 1978, 1,000 pp., \$20.00.

Sharing the Sun: Solar Technology in the Seventies, Joint Conference of the American Section of the International Solar Energy Society, 300 State Road 401, Cape Canaveral, FL 32920, and the Solar Energy Society of Canada, Winnipeg, Manitoba, August 1976, Vol. 4. Discussion of "Solar Systems," "Simulation," and "Design."

Solar Cooling for Buildings. Workshop Proceedings, F. DeWinter (ed.), Los Angeles, CA, February, 1974, Report No.NSF-RA-N-74-063, GPO Stock No. 3800-00189, 231 pp., \$3.00.

Solar Heating and Cooling Demonstration, A Descriptive Summary of HUD Solar Residential Demonstrations, Cycle 2, Fall, 1976, GPO Stock No. 023-000-00389-9, \$2.35.

"Solar Heating and Cooling for Buildings Workshop," A. Redfield (ed.), Washington, DC, March, 1973, NTIS Report No. PB223-536, July, 1973, \$3.00.

Solar Policy for the 80's, Environmental Law Institute, 1346 Connecticut Avenue, NW, Washington, DC 20036, September, 1978, 538 pp.

"Bread Box Water Heater Plans," Steve Baer. Zomeworks, 1 blueprint, \$2.50.

Build Your Own Solar Water Heater, Florida Environmental Information Center. 2nd ed., 1976, \$3.50. Detailed design and construction manual.

"Drum Wall Plans," Zomeworks, 2 blueprints, \$5.00.

"Five Solar Water Heaters You Can Build," BRI, L-4, 1973, 11 pp., \$2.00. Do-it-yourself leaflet.

"An Inexpensive Economic Solar Heating System for Homes," J.W. Alfred et al. Report No. NASA TM X-3294, GPO Stock No. 033-000-00632-2, July, 1976, 56 pp., \$1.15.

"A Non-Technical Evaluation of 4 Different Concrete Wall Solar Collector Configurations," B. Anderson et al. Sharing the Sun, Vol. 4, pages 15-22.

Solar Water Heater Plans, Farallones Institute, Integral Urban House, Berkeley, CA, \$.75. Passive thermosyphoning water heater plans.

"Solar Water Heater Plans," Steve Baer. Zomeworks, 2 blueprints, \$5.00.

A Solar Water Heater Workshop Manual, Ecotope Group, Seattle, WA, \$7.50. Detailed passive thermosyphoning water heater plans.

"Solar Water Heating," E.T. Davey. EARS, 6 pp., \$.30.

Directory of the Solar Industry, by Solar Data, 2nd ed., 1976, \$7.50. An alphabetical and activity-coded listing covering all aspects of solar activity by 530 domestic organizations.

Informal Directory of Organizations and People Involved in the Solar Heating of Buildings, William Shurcliff. 3rd and final ed., 1977, \$9.00. An informal selective global directory covering all aspects of solar heating for inventors, engineers, architects, planners, administrators, and homeowners.

New England Yellow Pages of Solar Energy Developments, 2nd ed., NESEA, February, 1978, \$5.00. Information on solar, wind, wood, waste management and insulation products and services. Alphabetical, geographical, and classical listings.

Solar Age Catalog, editors of Solar Age. Brick House Publishing Co., Church Hill, Harrisville, NH 03450, 1977, 232 pp., \$8.50. Lists people and products by various categories.

Solar Energy Handbook, Paul Fleck. Time Wise Publications, Box 4140, Pasadena, CA 91106, \$3.95. Pocket-sized reference on numerous aspects of the solar energy field.

Solar Energy Source Book, C.W. Martz. Solar Energy Institute of America, P.O. Box 9352, Washington, DC, 20005, 1977, 712 pp., \$12.00. Loose-leaf guide to manufacturers and organizations; periodic updates provided.

Solar Sourcebook for Massachusetts, Andrea Addison. Boston Architectural Center, 1978, 104 pp., \$5.00. Serves the layperson/homeowner interested in learning about financing and procuring a solar energy system; includes extensive bibliographies.

Sun Catalogue, SUN, Box 306, Bascom, OH 44802, 1978, 127 pp., \$2.00. SUN distributes components for active solar heating systems.

National Program for Solar Heating and Cooling of Buildings, Vol.1, Project Data Summaries: Commercial and Residential Demonstrations, GPO Stock No. 060-000-00012-3, \$2.35. Vol. 2, Demonstration Support, GPO Stock No. 060-000-00042-5, \$1.25. Vol. 3, Research and Development, GPO Stock No. 060-000-00018-2, \$1.90. Interim Report. GPO Stock No. 060-000-00063-3, \$2.70..

Solar Heated Buildings: A Brief Survey, (13th ed. January, 1977), William A. Shurcliff, 19 Appleton Street, Cambridge, MA 02138, 1977, 306 pp., \$12.00. Contains descriptions of 319 buildings which are partially or fully solar heated; includes buildings of past, present, and future. Comparisons of characteristics and performances of solar heated buildings.

Solar Heated Buildings of North America, William A. Shurcliff. Brick House Publishing Co., Church Hill, Harrisville, NH 03450, 1978, 312 pp., \$8.95. Includes fact-filled case histories representing 120 outstanding examples of solar heating system designs.

A Survey of Passive Solar Buildings, AIA Research Corp., 1977, GPO Stock No. 023-000-00437-2, 175 pp., \$3.75. Ninety-six passive solar buildings surveyed including climatic data, system diagrams and descriptions, and notes on performance evaluation.

A Survey of Solar Agricultural Driers, BRI. 1975, 86 pp., \$7.00. Over 25 examples given with plans, materials, construction, performance data, economics and comments on operation.

Applications of Solar Energy for Heating and Cooling of Buildings, R.C. Jordan and B.Y.H. Liu (eds.), ASHRAE (Sales Department), New York, NY 10017, 1977, 206 pp., \$9.00. Compilations of technical articles on the assessment, components, performance, and application of solar energy for heating and cooling; includes references, charts and index.

Applied Solar Energy, Meinel and Meinel. Addison-Wesley, Reading, MA, 1976, \$20.00. Technical treatise focusing on concentrating collectors and optics as related to solar energy.

ASHRAE Standards, ASHRAE, New York, NY 10017, \$5.70 for members, \$10.70 for non-members. 93-77: "Methods of Testing to Determine the Thermal Performance of Solar Collectors." 94-77: "Methods of Testing Thermal Storage Devices Based on Thermal Performances."

Climatic Atlas of the U.S., National Climatic Center, Federal Building, Asheville, NC 28801, \$6.00. 80 maps of various climatic variables; individual maps also available. (\$.25)

HUD Intermediate Minimum Property Standards for Solar Heating and Domestic Hot Water Systems, NSHCIC, 1977, 243 pp., \$12.00. Includes detailed information on the health and safety aspects of solar energy systems. A 122-page appendix explains the use of F-chart to calculate system performance.

Principles of Solar Engineering, Kreith and Kreider. McGraw Hill, 1978, \$25.00. Technical treatise examining heat transfer principles and theoretical performance of various collectors.

Solar Energy Thermal Processes, J.A. Duffie and W.A. Beckman. John Wiley and Sons, Inc., New York, NY 10016, 1974, 386 pp., \$19.00. How to understand and predict the performance of solar collectors and solar photothermal systems for heating and cooling buildings and for heating water and air; comprehensive and coherent treatment for professionals, especially engineers.

Solar Heating Design by the F-Chart Method, William A. Beckman, Sanford A. Klein, and John A. Duffie. John Wiley and Sons, 1 Wiley Drive, Somerset, NJ 08873, 1977, 200 pp., \$14.95. Practical design engineering guide for a conventional solar heating system based on flat-plate collectors.

(Available Free of Charge)

"Don't Get Burned by Your Solar Contractor"

Focusing on solar domestic hot water systems, this leaflet includes such topics as, "The Deceptive Ad," "How to Differentiate Manufacturers' Claims," "Choosing the Right Contractor," "The Contract," and "Examining Warranties."

Here Comes the Sun, August, 1978.

A general handbook for Massachusetts residents providing information on various active and passive solar applications and economic feasibility, as well as addressing the problems most often encountered by consumers when purchasing solar equipment.

A List of Massachusetts Solar Industries, April, 1978.

A compilation of individuals and companies, located or operating in Massachusetts, which are involved in solar energy design, distribution, installation, research and manufacturing. Updates will be published periodically.

Major Massachusetts Solar Installations, August, 1978.

The first of a series of solar installation inventories, including commercial, industrial, institutional, agricultural, and large residential solar systems. Updates will be published periodically.

Solar Grants Guide, September, 1978.

A guide to solar grantsmanship to assist you in acquiring a better understanding of solar grant opportunities and to provide information on preparing a successful grant application form.

Solar Water Heater Installation Guidelines, April, 1978.

A manual for both homeowners and professionals, intended for anyone who wants to avoid common errors associated with the installation of solar domestic hot water heaters.

Available from: The Solar Action Office
Room 1413, One Ashburton Place
Boston, MA 02108
(617) 727-7297