PREFACE

This publication is the result of a study undertaken by the National Energy Information Center (NEIC), a service of the Energy Information Administration (EIA), to provide its customers with a list of generally free or low-cost energy-related educational materials available for students and educators.

Each entry includes the address, telephone number, and description of the organization and the energy-related materials available. Some organizations now make their products available via computer. When available, Internet (Web) and electronic mail (E-Mail) addresses were included in this year's edition. Each entry is followed by a number, which is referenced in the subject index in the back of this book.

Some of the organizations represented in this list take policy positions on certain energy issues and express them even in educational materials. Because EIA is the independent statistical and analytical agency within the U.S. Department of Energy (DOE), it does not advocate any policy position of DOE or any other organization. EIA has completed this list solely to aid educators and students in locating materials.

The list, which was compiled by Paula Altman of NEIC, is updated once a year. To include a new entry or to obtain a free copy of this list, contact NEIC at the following address:

> National Energy Information Center, EI-231 **Energy Information Administration** Room 1F-048, Forrestal Building 1000 Independence Avenue, S.W. Washington, DC 20585 (202) 586-8800 TTY: For people who are deaf or hard of hearing: (202) 586-1181

9 a.m. to 5 p.m., eastern time, M-F

This publication is available on EIA's World Wide Web site: http://www.eia.doe.gov.

CONTENTS

	Page
1	Air & Waste Management Association (A&WMA)
2	Alliance to Save Energy, The
3	Aluminum Association, Inc., The
4	$American\ Association\ for\ Vocational\ Instructional\ Materials \dots \dots 2$
5	American Chemical Society
6	American Coal Foundation 3
7	American Forest Foundation
8	American Geological Institute 5
9	American Nuclear Society 6
10	American Petroleum Institute 6
11	American Plastics Council
12	American Public Power Association 8
13	American Solar Energy Society
14	American Water Works Association
15	American Wind Energy Association 9
16	Apple Computer, Inc
17	Arizona Department of Commerce Energy Office
18	Aseptic Packaging Council, The
19	Bakken Library and Museum, The
20	Baltimore Gas and Electric Company (BGE)
21	Biofuels America
22	BP America
23	Bullfrog Films
24	California Energy Commission
25	California Foundation for Agriculture in the Classroom
26	Center for Energy and Economic Development (CEED), The
27	Center for Renewable Energy and Sustainable Technology 18
28	Channing L. Bete Publishing Co., Inc
29	Charles Edison Fund
30	Chlorine Chemistry Council (CCC), The
31	City Public Service (CPS)
32	City Utilities of Springfield
33	Cobblestone Publishing, Inc
34	Colorado School of Mines
35	Consolidated Edison Company of New York, Inc
36	Consumer Aerosol Products Council, The
37	Culver Company

38	Dayton Power & Light Company	23
39	Denver Earth Science Project	24
40	Disney Educational Productions	25
41	DuPont	
42	Earth Foundation	26
43	East Ohio Gas	
44	Edison Electric Institute (EEI)	
45	Edison Plaza Museum	
46	Educational Development Specialists	27
47	Energy Source Education Council	28
48	Enterprise for Education	28
49	Environmental Education Associates, Inc. (EEA)	30
50	Environmental Hazards Management Institute (EHMI)	30
51	EV Media	31
52	Exxon Company, U.S.A	31
53	Flexible Packaging Educational Foundation	32
54	Florida Energy Office	32
55	Florida Power & Light Company	33
56	Florida Solar Energy Center (FSEC)	33
57	Foodservice & Packaging Institute, Inc.	34
58	Frey Scientific	
59	Geothermal Education Office	
60	Global Issues Resource Center	35
61	Hawaiian Electric Company, Inc	36
62	Houston Lighting & Power Company	36
63	Illinois Department of Commerce and Community Affairs	37
64	Independent Petroleum Association of America	37
65	Indiana Department of Education	38
66	Institute for Chemical Education (ICE), The	39
67	Integrated Waste Services Association	40
68	Jacksonville Electric Authority (JEA)	40
69	Jersey Central Power & Light Company	41
70	Johnson Controls, Inc.	
71	Keep America Beautiful, Inc.	42
72	Kids For A Clean Environment (Kids F.A.C.E.)	43
73	Kissimmee Utility Authority (KUA)	43
74	Learning Works, The	
75	Midwest Renewable Energy Association	44
76	Mineral Information Institute (MII)	45
77	Minnesota Department of Public Service	
78	National Aeronautics and Space Administration (NASA)	46
79	National Arbor Day Foundation	
80	National Association of Conservation Districts (NACD)	
81	National Center for Appropriate Technology	
82	National Corn Growers Association	48

83	National Cotton Council of America	48
84	National Energy Education Development Project (NEED)	49
85	National Energy Foundation (NEF)	50
86	National Geographic Society	51
87	National Mining Association	51
88	National Propane Gas Association	52
89	National Rural Electric Cooperative Association	52
	National Science Foundation	
91	National Science Resources Center (NSRC)	53
	National Science Teachers Association	
	National Wildlife Federation	
94	Natural Gas Vehicle Coalition, The	55
95	New York Power Authority	55
96	New York State Geological Survey	56
	NoodleHead Network, The	
	Northeast Utilities	
99	Northern Indiana Public Service Company	58
100	Northern States Power Company	58
	Nuclear Energy Institute	
	Nuclear Information and Resource Service	
	OG&E Electric Services	
	Omaha Public Power District	
105	Pacific Gas & Electric Company	61
	Pennsylvania Power & Light Co	
107	Polystyrene Packaging Council	62
	Procter & Gamble	
	Radon Group, Ltd. The	
	Renew America	
	Safe Energy Communication Council	
	Science Screen Report	
	Science Service, Inc.	
	SC Johnson Wax	
	Shell Oil Company	
	Simon and Schuster Children's Publishing Division	
	SME	
	Smith College	
	Solar Energy Industries Association	
	Solar Now Project, The	69
121	J . O	69
122		70
	Troll School and Library L.L.C.	70
	Union of Concerned Scientists	71
	8	
126	University of Florida	72
127	University of Illinois at Urbana-Champaign	72

128 University of Maryland-College Park	
129 U.S. Consumer Information Center	73
130 U.S. Department of Agriculture	74
U.S. Department of Education	
131 ERIC Clearinghouse for Science, Mathematics, and Environmental	
Education	74
132 Office of Educational Research and Improvement (OERI)	
U.S. Department of Energy	
133 Argonne National Laboratory	76
134 Biofuels Feedstock Development Program	
135 Bonneville Power Administration	
136 Carbon Dioxide Information Analysis Center (CDIAC)	
137 Clean Cities Hotline	
138 Energy Efficiency and Renewable Energy Clearinghouse (EREC)	
139 National Alternative Fuels Hotline	
140 National Energy Information Center (NEIC)	
141 National Low Level Waste Management Program	
142 Office of Civilian Radioactive Waste Management	
143 Office of Fossil Energy	
144 Office of Nuclear Energy, Science and Technology	
145 Office of Scientific and Technical Information	
146 Pittsburgh Energy Technology Center	83
147 Sandia National Laboratories (SNL)	
148 Southwestern Power Administration	84
149 Superconductivity Program for Electric Systems	85
150 Western Area Power Administration	85
U.S. Department of the Interior	
151 Bureau of Land Management (BLM)	86
152 Minerals Management Service (MMS)	
153 U.S. Environmental Protection Agency (EPA)	87
154 Videodiscovery, Inc.	88
155 Water Environment Federation	
156 Waverly Light and Power	
157 Westinghouse Electric Corporation	
SURIFCT INDEX	91

Air & Waste Management Association (A&WMA)

One Gateway Center, Third Floor Pittsburgh, PA 15222 (412) 232-3444

Fax: (412) 232-3450 E-Mail: info@awma.org

Provides educational materials for students in kindergarten through grade 12. Materials are designed to improve the environmental literacy of students and educators and introduce them to actions that they can take to reduce waste, conserve energy, and develop pollution prevention plans. Materials include fact sheets and information books on such topics as air pollution, pollution prevention, recycling, hazardous waste, landfills, and others. A&WMA also produces Environmental Resource Guides (ERG's) on air quality nonpoint source pollution prevention, which focuses on water quality and runoffs. The ERG's are supplementary curricula with a handson, interdisciplinary approach to environmental education. We encourage A&WMA members and other interested parties to sponsor local teacher-training workshops. The workshops provide teachers an opportunity to participate in ERG activities and create an ongoing dialogue between environmental professionals and the educational community. Contact A&WMA headquarters to find out about teacher-training opportunities in your area or to order public education materials. 1

Founded in 1907, A&WMA is a nonprofit, technical, and educational organization with over 16,000 members in 65 countries. This worldwide network represents many disciplines: physical and social sciences, health, engineering, law and management. It serves its members and the public by promoting environmental responsibility; provides technical and managerial leadership in the areas of pollution air control, environmental management, and waste processing and control.

The Alliance to Save Energy

1725 K Street, N.W., Suite 509 Washington, DC 20006-1401 (202) 857-0666 1-(800) 376-6216

Fax: (202) 331-9588

Consumers who call the toll-free number receive a poster with energy-saving tips and the opportunity for a free informational kit with information from DOE, the Environmental Protection Agency, product manufacturers, and other organizations. 2

The Aluminum Association, Inc. 900 19th Street, N.W.

Washington, DC 20006-2168 (202) 862-5100

Fax: (202) 862-5164

Provides educational materials on recycling for use in kindergarten through grade 12. There are two educational videos available—"Call Me Can" and "Aluminum Recycling: Your Next Assignment." The videos can be borrowed on a free-loan basis by calling Modern Talking Picture Service (1-800-243-6877). Free catalogs are also available. 3

American Association for Vocational Instructional Materials

220 Smithonia Road Winterville, GA 30683 (706) 742-5355

Fax: (706) 742-7005

Provides vocational instructional materials on electricity and electrical energy. Included are publications, computer software, and videos for reasonable fees. A free catalog is also available upon request. Publications available include Electric Energy; Understanding Electricity and Electrical Terms; Electrical Wiring; How Electric Motors Start and Run; Fuels and Lubricants; Electric Motors; Home Electrical Repair; and Electrical Controls. 4

A nonprofit coalition of business, government, environmental, and consumer leaders.

A trade association representing the U.S. aluminum industry. Serves as principal source of information on aluminum and the industry.

A nonprofit developer, publisher, and distributor of materials for vocational education.

American Chemical Society

1155 16th Street, N.W. Washington, DC 20036 (202) 872-4590

Fax: (202) 833-7732

Publishes educational materials for use in grades 4 through 12. WonderScience is an exciting monthly hands-on science activities magazine for middle school students (back issues are available); ChemMatters, award-winning an magazine for high school students, relates chemistry to everyday life (published quarterly, back issues are available); and ChemCom, also for high school students, is a chemistry textbook that combines an emphasis on the role of chemistry in everyone's life with basic chemical knowledge. All three products deal with such energy-related topics as electricity, recycling, nuclear energy, and the environment. A free Teaching Resources Catalog is available upon request. 5

The world's largest scientific society, with a membership of nearly 149,000 chemists and chemical engineers.

American Coal Foundation

1130 17th Street, N.W., Suite 220 Washington, DC 20036-4604 (202) 466-8630

Fax: (202) 466-8632

Provides materials on coal production, distribution, usage, research, and the environment. Some of the materials are available in classroom sets free of charge. Also available free of charge is a coal kit containing samples of peat, lignite, bituminous coal, and anthracite, and a brief description of the formation and different types of coal. **6**

A nonprofit educational organization supported by a coalition of coal producers, electric utilities, railroads, equipment suppliers, sellers, and the labor union.

American Forest Foundation

Project Learning Tree 1111 19th Street, N.W., Suite 780 Washington, DC 20036 (202) 463-2462

Fax: (202) 463-2461

PLT is co-sponsored by the American Forest Foundation and the Western Regional Environmental Education Council. PLT's newly revised curriculum guide, Project Learning Tree: Environmental Education Pre-kindergarten through Grade 8 Activity Guide, focuses on the total environment: land, air, and water. It is local, national, and global in scope. The new curriculum underscores PLT's primary goal-to help children learn how to think about the environment, not what to think about the environment. The curriculum remains easily adaptable to many settings from the classroom to youth organizations, museums, nature centers, and scout troops. Nearly 100 activities are offered in a storyline technique covering the themes of diversity, interrelationships, systems, structure and scale, and patterns of change. Central to the new curriculum is an emphasis on constructivist learning theory and whole language teaching strategies. ground information, authentic assessment opportunities, an extensive bibliography, and a cross reference index are also included. A new curriculum made up of individual thematic modules, for use in grades 9 through 12, is near completion. PLT curricular materials are available only through workshops. Contact PLT for the name of the program coordinator in your State. 7

Develops, funds, and administers programs that encourage the long-term stewardship of our natural resources. The Foundation's core programs are Project Learning Tree (PLT) and American Tree Farm System.

American Geological Institute

4220 King Street Alexandria, VA 22302-1502 (703) 379-2480

Fax: (703) 379-7563

Distributes information on earth science education through several mechanisms, including publications (textbooks, monographs, brochures), public inquiries, outreach programs (workshops and presentations), and compact discs and a laser disc. Careers in the Geosciences (1-10 copies free) and the Earth Science Resources List for Teachers (free) are among the publications available. Compiled and distributed since 1990, the Earth Science Resources List for Teachers provides information on earth science educational materials that are available from nonprofit organizations. The list is updated annually and is available in hard copy and through electronic mail (E-Mail) at: ncese@agi.umd.edu. AGI's goals are to advance and promote the geosciences through improved public information, expanded professional services to the geoscience community, and increased earth science educational programs at the college and precollege levels. For additional information, write to AGI Publications Center, P.O. Box 205, Annapolis Junction, MD 20701, (301) 953-1744 or fax at (301) 953-2838. **8**

Established in 1948, the American Geological Institute (AGI) is a nonprofit federation of 29 member organizations representing more than 80,000 geologists, geophysicists, and other earth scientists.

American Nuclear Society

Public Communications Department 555 North Kensington Avenue LaGrange Park, IL 60525 (708) 579-8265

Fax: (708) 352-0499 E-Mail: outreach@ans.org

Offers free publications (single copies) on nuclear energy and uses of the atom. Available materials include Nuclear Energy Facts Q&A, Nuclear Technology Creates Careers, Personal Radiation Dose Chart, and a simulated nuclear fuel Science and social studies pellet. materials curricula for use kindergarten through grade 12 may be borrowed or purchased. A free catalog is available upon request by mail or electronic mail at outreach@ans.org. Teachers may sign up for the free newsletter re-actions, which contains articles on uses of the atom in everyday life and-in each issue-an "activity card" with a project for classroom use. Also sponsors, each summer, 5-day teacher workshops for science and social studies instructors grades 6 through 12. Shorter workshops and sessions are held throughout the year at exhibits, conferences, in-service training, and by invitation. 9

A nonprofit scientific and educational organization of professionals in the field of nuclear science and technology.

American Petroleum Institute

Public Relations Department 1220 L Street, N.W. Washington, DC 20005 (202) 682-8000

Supplies educational materials on the petroleum industry. Some publications are free, such as *The Ecosystem of Oil* which is available for classroom use in quantities of up to 35 copies. A free catalog is available. **10**

A national trade association that encompasses all branches of the petroleum industry.

American Plastics Council

1275 K Street, N.W., Suite 500 Washington, DC 20005 (202) 223-0125 1-(800) 2-HELP-90

Fax: (202) 371-5679

Offers educational materials on resource management targeting elementary, middle, and high school levels. "Plastics in our World" supplemental kits include the booklet How to Set Up a School Recycling Program, which takes a step-bystep approach to starting and building upon current recycling programs. The classroom activities in the two kits vary to target kindergarten through grade 6 and grades 7 through 12. Single copies of these kits are offered free to teachers. The "Hands On Plastics: A Scientific Investigation Kit" is the newest resource available to middle school and high school teachers. The kit contains samples of recycled plastic pellets, a full curriculum for the teacher (slides included) and includes experiments to show students the different characteristics of each type of plastic. This kit is available for a fee. An order form listing all APC materials is also available. 11

The American Plastics Council (APC) is a national organization working on behalf of the overall U.S. plastics industry to enhance the integrity of plastics with the public and others by focusing on resource management-related environmental issues and product benefits. APC is a joint-initiative with the Society of the Plastics Industry.

American Public Power Association 2301 M Street, N.W., Suite 300

Washington, DC 20037 (202) 467-2900

Provides various pamphlets, including The Benefits of Public Power, History of Public Power, Careers in Public Power, and All About Electricity and 10 Ways Kids Can Save It. Offers a Teaching Unit on Electromagnetic Waves, which was developed by the Los Angeles Department of Water and Power for junior high and senior high school students. Also available are two videos, "Simple Things You Can Do to Save Energy" and "How to Make Great Videos About Saving Energy." The videos were prepared by the Burlington (Vermont) Electric Department through the American Public Power Association's DEED (Demonstration of Energy Efficient Developments) program. Publications and videos are offered for a nominal fee. A free catalog is available.

A service organization for not-for-profit communityowned electric utilities.

American Solar Energy Society

2400 Central Avenue, Suite G-1 Boulder, CO 80301 (303) 443-3130

Fax: (303) 443-3212 E-Mail: ases@igc.apc.org

Offers sample copies of its magazine Solar Today. Has one science project book, Elementary and Secondary Science Projects in Renewable Energy and Energy Efficiency, available for a fee. Bulk discounts are available. 13

A national membership association dedicated to advancing the use of solar energy.

American Water Works Association

6666 West Quincy Avenue Denver, CO 80235 (303) 794-7711 (303) 347-6138 (Youth Education)

Fax: (303) 794-7310

Provides educational materials designed to teach young people about water treatment, distribution, and conservation. Materials include activity books, teacher's guides, comic style books, computer software, videos, bookcovers, and novelty items. Nonmembers may order materials directly from AWWA headquarters in Denver. Most materials are low in cost. To order materials or receive an AWWA Youth Education Catalog, call the AWWA Bookstore at 1-(800) 926-7337. 14

An international, nonprofit, scientific, and educational organization of professionals associated with the public drinking water industry, including utilities, manufacturers, consultants, researchers, educators, etc.

American Wind Energy Association

122 C Street, N.W., Suite 400 Washington, DC 20001 (202) 383-2500 Fax: (202) 383-2505

E-Mail: 7395895@mcimail.com

Offers a general information packet for teachers which includes a copy of the Association's publication *The Most Frequently Asked Questions About Wind Energy.* 15

The American Wind Energy Association (AWEA) represents wind energy as a technology that is economically and technically viable today.

Apple Computer, Inc. 1 Infinite Loop Cupertino, CA 95014

1-(800) 800-2775

In 1990, Apple introduced the LC series of computers (including the I, II, III, 520, 550, 575, and 630). Developed specifically for education, this learning computer series features an all-in-one design and integrated multimedia features, including a built-in compact disc (CD-ROM) drive.

For educators who need greater power or faster speed, Apple introduced Power Macintosh in early 1994. This family of high-end computers is built around the new PowerPC processor and its advanced RISC technology. The Power Macintosh upgrade option offers educators the flexibility to add new capabilities to Macintosh LC computers while protecting their technology investments.

The Apple Education Series (AES), a suite of products that help educators effectively use and integrate technology into their learning environments, includes hardware and software components and select training and support, focusing on curriculum and other education-specific needs.

In addition to the current products, Apple also publishes the *Macintosh & Curriculum* handbooks for kindergarten through grade 12. Handbooks model technology integration into the mathematics and science curriculum. Each handbook contains assessment guidelines and a variety of investigations which consists of lesson plans, activities, and extensions.

Apple develops, manufactures, and markets personal computers for use in education, business, science, engineering, and government.

In the *Macintosh & Curriculum Handbook: Elementary Mathematics and Science*, energy-related investigations include: "Star Date: 2210 In Search of the Lost Probes" and "Whole Lotta So."

In the Macintosh & Curriculum Handbook: Secondary Science, energy-related investigations include: "Conservation of Heat Energy," "Change Through Time," "What Environmental Conditions May Bring About Extinction," and "Temperature Change."

Information about any Apple product is available on the Internet at http://www.info.apple.com/education or by calling our national educational support center at 1-800-800-2775. Science handbooks are available for a nominal fee from the National Science Teachers Association at 1-800-722-NSTA.

Arizona Department of Commerce

Energy Office 3800 N. Central, Suite 1200 Phoenix, AZ 85012 (602) 280-1402 Fax: (602) 280-1445

E-Mail: jima@ep.state.az.us

Provides the following materials and services for primary and secondary schools free of charge: *Bright Ideas* (single-topic publications covering energy and the environment, renewable energy, solar cooking, photovoltaics, and recycling); Energy Learning Centers I and II (activities and games for primary, intermediate, and upper grades); and Energy Patrol (assistance including start-up kit). 17

A DOE-funded program that emphasizes an energy efficiency curriculum for students in kindergarten through grade 12.

The Aseptic Packaging Council

P.O. Box 3794 Washington, DC 20007 1-(800) 277-8088

Offers free educational materials on recycling issues for teachers and students. Waste Wise: Concepts in Waste Management, a teacher's discussion guide, can be adapted for particular classes from kindergarten through grade 12. We also have available a poster, What's New In Recycling, which complements the teaching guide. A general information brochure may also be ordered. 18

The Bakken Library and Museum

3537 Zenith Avenue South Minneapolis, MN 55416 (612) 927-6508 Fax: (612) 927-7265

Web: http://www.umn.edu/nlhome/ m557/rhees001/blm/welcome.htm

The Bakken has developed a book and kit to teach students how scientists of the 18th century succeeded in developing the basis for all we know about electrostatics, equipped only with their powers of observation and simple apparatus. The kit has easy-to-assemble apparatus commonly found in an 18thcentury electrical laboratory, a 22-minute videotape, and a 100-page curriculum manual. The manual has instructions for demonstrations and experiments, methods for adapting the experiments for students from the elementary grades through high school, and gives the historical context in which key discoveries were made. Designed and tested by The Bakken Library and Museum, this kit offers an excellent introduction to teaching basic electricity and the history of science.

By using this inquiry-based approach, students gain deeper insight into the

A trade association of drink box manufacturers committed to establishing effective and economical school and curbside drink box and milk carton recycling programs.

A nonprofit educational organization with library and museum collections documenting the history of electromagnetism and its uses in the life sciences.

principles of electrostatics. The development of the kit was cofunded by the National Science Foundation. This kit is available for sale from The Bakken. The video and curriculum manual are available separately. Write or fax to obtain The Bakken's current list of other educational resources for sale or to receive our free newsletters. 19

Baltimore Gas and Electric Company (BGE)

State Affairs/Education P.O. Box 1475 Baltimore, MD 21203-1475 (410) 234-7484

Fax: (410) 234-7426

Provides educational services free of charge to schools **in BGE's service area**. Services include classroom programs, career programs, resources, and newsletters for educators; certified workshops for educators; and films/videos, power plant tours, and classroom literature for students in kindergarten through grade 12. A free *Educational Resources* catalog is available upon request. **20**

Biofuels America

26 Lorin Dee Drive Westerlo, NY 12193 (518) 797-3377 Fax: (518) 797-3385

Fax: (518) 797-3385

E-Mail: biofuels@globalone.net Web: http://www.albany. globalone.net/biofuels/

Maintains a large database of contacts and publications. Provides free referrals to educators and students. Will help locate others involved in renewable fuels, energy, and energy efficiency by region or by other specific information, including political, environmental, agricultural, and industry contacts. Hosts a biofuels forum on the Internet. Helps identify potential opportunities for development of regional businesses. Information by Internet only. 21

An investor-owned utility serving Baltimore City and all, or parts of, nine central Maryland counties.

A not-for-profit organization. Advocates the production and use of renewable transportation fuels with a focus on environmental sustainability, regional economic growth, and curbing global climate change.

BP America

Corporate Communications 200 Public Square (40-H) Cleveland, OH 44114-2375 (216) 586-6511

Fax: (216) 586-5593

E-Mail: kochtj@regctr02.usaclv.msnet.

bp.com

Science Across America makes it possible for students to exchange their scientific work with others throughout the United States and around the world. The program includes eight teaching modules designed for students in grades 7 through 12. The units deal with those issues which are of international environmental interest (e.g., energy and drinking water quality) and are common to science courses internationally. There is a fee, which includes lifetime registration on a worldwide database of participating schools. For more information, write to the address above. BP Statistical Review of World Energy, a booklet containing information on world energy supplies and demand, includes data on oil, gas, coal, nuclear, and hydro in terms of reserves, production, and consumption for a 10-year period before the current year. Also available is New Horizons, BP's annual report on health, safety and the environment. Available in a limited quantity is BP Review of World Gas. These publications are free to teachers. Contact above address. Also available is the BP Educational Resources Catalogue, which offers a full range of school resource materials. Some of the items in the catalogue are available for a fee. 22

The wholly owned U.S. subsidiary of one of the world's largest international petroleum and petrochemical groups.

Bullfrog Films

P.O. Box 149 Oley, PA 19547 1-(800) 543-3764 Fax: (610) 370-1978

E-Mail: bullfrog@igc.apc.org

Provides educational films and videos on energy and energy-related issues. Titles include Bill Loosely's Heat Pump; Decision: Energy for the Future; The Energy Bank; Energy Efficiency; Energy, Technology and Society; Harness the Wind; Living Under the Cloud: Chernobyl Today; Race for the Future; Solar Promise; and Wake Up Freddy, in the tradition of Bullfrog's classic Toast. Programs are available for purchase or rental. Special packages, with discounted prices, can be created to serve most schools' needs. A free catalog is available upon request. 23

California Energy Commission

1516 9th Street, MS-31 Sacramento, CA 95814 (916) 654-4982

Fax: (916) 654-4420

E-Mail: energia@energy.ca.gov Web: http://www.energy.ca.gov/ energy/education/eduhome.html

Provides the following environmental education materials for a small fee for kindergarten through grade 12: Compendium for Energy Resources, Compendium for Human Communities; Universal House, Energy, Shelter & The California Indian; 4-H Home Conservation Guide; Conserve & Renew, Energy Tech-Knowledgy, Let's Get Energized; Turn Out Those Lights—Energy Patrol; Bright Ideas; and Energy Quest visit the Nation's first Internet site dedicated solely to energy education. Features word games, puzzles, energyrelated math and science experiments, and information on conservation, energy safety and alternative energy sources; the colorful new site on the World Wide Web is geared to students, parents, and teachers. 24

An educational film distributor that offers the largest collection of energy films and videos in the country.

The California Energy Commission is the State's principal energy planning organization, promoting a balanced and competitive energy system through its diverse programs.

California Foundation for Agriculture in the Classroom

1601 Exposition Boulevard, FB 16 Sacramento, CA 95815 (916) 924-4380

Fax: (916) 923-5318

Teachers may request free or low-cost items including lesson plans, comprehensive classroom units, videos, a resource guide, and the *Cream of the Crop* newsletter. Most programs are specific to California but a limited number of resources may be available for use in other States. Among lesson plans available, some have Spanish language worksheets. All lesson plans are correlated with California curriculum frameworks and undergo extensive field testing and teacher and technical review.

The Foundation encourages classroom integration of agriculture to increase understanding of its vital role in our lives. Agriculture provides a theme which encourages hands-on activities to reinforce concepts in science/environment, mathematics, English/language arts, history/social science, health/nutrition, physical education and the visual and performing arts. Contact with the Foundation is a good starting point for teaching other agriculture-related groups that produce educational resources. Educational materials developed by industries and organizations related to agriculture are reviewed by the Foundation and listed in an annually updated Teacher Resource Guide.

A nonprofit educational foundation that provides educational resources and training for teachers to use agriculture as an integration theme throughout kindergarten through grade 12 curricula.

The Center for Energy and Economic Development (CEED)

1800 Diagonal Road, Suite 370 Alexandria, VA 22314 (703) 684-6292

Fax: (703) 684-6297

Web: http://www.conx.com/ceed

Offers America's Fuel, a booklet describing how coal is mined and sent to the marketplace and coal's role in supplying America with electricity, environmental compatibility, technologies, and economic growth. A video, also called "America's Fuel," is available as well. Also available is a CEED "Pocket Piece" folder which gives facts about coal on such topics as coal technology, coal transportation, health and safety, coal and the environment, coal and the economy, and electricity. Teachers may also request CEED's Coal Technology poster, which describes the process of coal extraction and creating electricity. All are free of charge. CEED also has an extensive Home Page on the Internet. 26

A nonprofit organization dedicated to preserving coal's role as an economical, efficient, and environmentally compatible source of electricity.

Center for Renewable Energy and Sustainable Technology

777 North Capitol Street, N.E., Suite 805 Washington, DC 20002 (202) 289-5370

Fax: (202) 289-5354 E-Mail: info@crest.org

CREST operates an on-line clearinghouse of renewable energy and energy efficiency information called SOLSTICE, which provides free electronic access to documents, images, directories, and other databases around the world. SOLSTICE can be accessed via Gopher ("gopher.crest.org"), File Transfer Protocol (ftp to "solstice.crest.org"), and World Wide Web ("http://solstice.crest.org/"). CREST has published multimedia educational CD-ROM's about renewable energy, efficiency, and global climate change; the Sun's Joules multimedia encyclopedia on renewable energy; and a renewable energy demonstration module. A free quarterly newsletter, Resource, details the Foundation's activities and renewable energy activities. Available on-line and by mail. 27

Channing L. Bete Publishing Co., Inc.

200 State Road South Deerfield, MA 01373-0200 1-(800) 628-7733

Fax: (413) 665-2671

Offers My Book series, designed for students in kindergarten and grade 1; Coloring and Activities Books for students in grades 1 through 3; and Information and Activities Books for students in grades 4 through 6. "Experiment Kits" on Magnetism, Conservation, Energy, and Electricity, all for students in grades 4 through 6, are available. Each kit contains 35 student workbooks and 1 instructor's guide. Energy and Environmental posters for classroom and public display are also available. Contact your local utility for availability or call the publisher directly.

The Center for Renewable Energy and Sustainable Technology (CREST), a project of the nonprofit organization the Solar Energy Research and Education Foundation, is dedicated to promoting renewable energy and sustainable development using advanced communications and computer technology.

A publishing firm specializing in Scriptographic Booklets. Most utilities provide them to schools in their service territories free of charge; however, the booklets are available from the publisher for a fee.

Charles Edison Fund

101 South Harrison Street East Orange, NJ 07018 (201) 675-9000

Fax: (201) 675-3345

Provides "The Best of Edison Science Teaching Kits," which are available to teachers. Each kit contains eight how-to booklets based on experiments of Thomas Edison and other scientists. These are suitable for grades 4 through 8. Titles include: Energy for the Future Useful Science Projects; Environmental Experiments; Selected Experiments and Projects; Nuclear Experiments; Energy Conservation; Alternative Energy Sources; and Lewis Howard Latimer Experiments. There is a small fee for handling charges. Write for coupon to receive this kit. 29

A charitable foundation providing science teachers with simple, basic, proven fun experimental booklets containing 73 experiments.

The Chlorine Chemistry Council (CCC) 1300 Wilson Boulevard Arlington, VA 22209 (703) 741-5000

Making the connection between the periodic table and real life can be challenging-particularly for middle school teachers. CCC offers hands-on materials designed to introduce basic chemistry and the periodic table. By taking a look at one element-chlorine—teachers can help students understand the link between chemical "building blocks" and daily life. The video, hand-outs, experiments, and lesson guides in the Building Block Chemistry Program were developed by teachers for teachers to help students explore their world. For FREE classroom materials and video, write to the address above. 30

The Chlorine Chemistry Council is part of the Chemical Manufacturers Association established to provide information to the public regarding chlorine and to promote the practice and understanding of responsible use for chlorine chemistry.

City Public Service (CPS)

Consumer Services Section P.O. Box 1771 San Antonio, TX 78296-1771 (210) 978-2833

Fax: (210) 978-4327

Provides safety and energy educational services free of charge to schools in the CPS service area. Services include classroom presentations, workshops for educators, a videotape library, curriculum supplements, and power plant tours. A free CPS School Energy Education Program Catalog is available upon request. 31

A municipally owned natural gas and electric utility serving substantially all of Bexar County and small portions of seven adjacent counties.

City Utilities of Springfield

301 E. Central P.O. Box 551 Springfield, MO 65801-0551 (417) 831-8311

Fax: (417) 831-8808

E-Mail: edecamp@mail.orion.org

Provides educational services free to instructors in areas served by City Utilities. Offers tours to power plants and water treatment plants, classroom presentations, speakers' bureau, and purchased curriculum materials for students in kindergarten through grade 12. City Utilities also has special units, "The Planet Water" and "Are You Being Safety Conscious Around Electricity." Single copies are available to teachers outside City Utilities' service area. 32

A municipal utility serving the metropolitan area of Springfield with electricity, natural gas, and water.

Cobblestone Publishing, Inc.

7 School Street Peterborough, NH 03458 1-(800) 821-0115

Fax: (603) 924-7380

E-Mail: custsve@cobblestone.mv.com

Publishes educational materials for students in grades 5 through 8. Energy-related titles are: Energy: Powering Our Nation; Recycling; Earth: A Global Spaceship; Planet Earth: Home Sweet Home; and a theme pack with activities, ENVIRONMENT. Materials may be purchased from the publisher. Free catalogs are available upon request. 33

A publishing firm specializing in magazines for children and teaching resources.

Colorado School of Mines

Teacher Enhancement Program Office of Special Programs and Continuing Education Golden, CO 80401 1-(800) 446-9488 x 3303

Fax: (303) 273-3314

Three times a year, provides a free catalog of course listings specifically for teachers. Courses carry graduate-level recertification credit and instruction; practical content-based hands-on experience; and, in some cases, extensive field trips. Offers for a nominal fee What's Under Your Feet, an earth science activity book for students in kindergarten through grade 6; Sharing Science with Children, a survival guide for visiting scientists and engineers in the classroom; and Sharing Science: Linking Students with Scientists and Engineers, a survival guide for teachers. 34

A State college of science and engineering teacher enhancement program offering coursework and resources for primary school and secondary school educators in science, energy, math, technology, and the environment.

Consolidated Edison Company of New York, Inc.

Community Relations 4 Irving Place, Room 1631S New York, NY 10003 (212) 460-6907

Con Edison's Community Relations presentations and materials, available free only in New York City and Westchester County, provide customers with information on energy efficiency and conservation; safety; the basics of electricity; and the economic and environmental relationship of energy supply, delivery, and use. Although primarily for educators and students, educational services can be tailored to meet the needs of other organizations. Write or call for a free catalog of materials. 35

An investor-owned electric, gas, and steam utility serving New York City and West-chester County.

The Consumer Aerosol Products Council

1201 Connecticut Ave., N.W., Suite 300 Washington, DC 20036 (202) 833-9471

Offers "Another Awesome Aerosol Adventure" educational unit for students in grades 4 through 8. Included is an 11-minute video produced by the makers of the children's television program "Beakman's World." Designed with humor in mind, the video, along with accompanying teacher and student guides and take-apart aerosol can, makes the complex issues of aerosol technology, ozone depletion, and environmental awareness memorable and fun for a middle school-age audience. "Another Awesome Aerosol Adventure" is available through Modern Talking Pictures. To order, call Modern's toll free number 1-(800) 243-6877 and ask for digest #K-0190-A. 36

Supported by companies that manufacture and market aerosol products, the Consumer Aerosol Products Council (CAPCO) was formed to provide information on aerosols and environmental issues for consumers, media, and educators at all levels.

Culver Company

316 Merrimac Street Newburyport, MA 01950 1-(800) 4-CULVER

Fax: (508) 463-1715

Produces booklets, videos, posters, and program enhancement items for children and adults. Teacher discussion guides are also available. Utilities purchase and distribute these materials in their service areas; other organizations may purchase them directly. 37

A developer and publisher of educational materials about energy and related topics.

Dayton Power & Light Company School Programs

School Programs 1065 Woodman Drive Dayton, OH 45432 (513) 259-7251

Fax: (513) 259-7813

Provides free educational programs and resources for students in kindergarten through grade 12 to schools within the utility's service area. Programs include customized computer software program on energy conservation; an electric and natural gas safety program; an energy conservation program in which boy scouts and girl scouts can earn an energy awareness patch; science fair kits for teachers and a recognition event for top science fair projects; workshops to provide educators with energy-related information and resources; power plant and energy museum tours; and classroom presentations. Materials provided include booklets, videos, handbooks, and student posters, teacher's guides with classroom activities. 38

An investor-owned electric, steam and natural gas utility that serves 464,000 customers in 24 counties of a 6,000-square-mile area in west central Ohio.

Denver Earth Science Project

Office of Special Programs & Continuing Education Colorado School of Mines Golden, CO 80401 1-(800) 446-9488 x3038 Fax: (303) 273-3314

E-Mail: jproud@mines.edu

Provides, for a fee, a series of educational workshops that address a range of earth science topics developed by trained curriculum development teams. The team members are experienced earth science teachers and practicing scientists. The hands-on student activities included in each module incorporate real data and follow a problem-solving approach. Each module integrates mathematics, geography, economics, and social and environmental issues with basic earth science concepts. The modules are:

- "Oil and Gas Exploration" (grades 7-12)
- "Ground Water Studies" (grades 7-9)
- "Paleontology and Dinosaurs" (grades 7-9)
- "Energy-A Closer Look at Oil and Gas" (grades 4-6).

Each module contains a teacher resource kit which includes a teacher/student notebook, maps, audio-visual materials, posters, oil samples, groundwater models, etc. Call to find out the location of the nearest training site. **39** A teacher enhancement program, in partnership with corporations, Federal agencies, school districts, and professional organizations, which provides innovative earth science curriculum materials for use in kindergarten through grade 12 and teacher training.

Disney Educational Productions

105 Terry Drive, Suite 120 Newtown, PA 18940 1-(800) 295-5010

Fax: (215) 579-8589

Offers educational videos and videodiscs on energy, the environment, earth science, recycling, and water. Curriculum-oriented videos come with discussion guides and lesson plans. Titles include:

- "Recycle Rex" (starring Disney's hip animated recycling dinosaur)
- "The Energy Savers" (starring Donald Duck, Mickey Mouse and Goofy)
- 10 "Bill Nye the Science Guy" earth science shows
- "Electricity"
- "Zort Sorts"
- "The Great Search—Man's Need for Power and Energy"
- "The Time Traveler's Guide to Energy."

Interactive discs, such as *Recycle Rex* and *Discover Quest: Explorations in Earth Science*, encourage learning with a mix of videos, interviews, games, on-line glossaries, and comprehensive guidebooks. Programs are available for purchase or lease. Call the toll-free number to request a free catalog.

DuPont

Corporate Contributions Nemours Building N9541 Wilmington, DE 19898

Offers for a fee an environmental resource kit developed with the National Science Teachers Association (NSTA). Material covers air, land, life, people, planet, and water. The kit, which is targeted for grades 4 through 9, includes color posters, population data charts, and color transparencies. Call 1-(800) 722-NSTA. 41

Disney Educational Productions develops and distributes entertaining and thought-provoking videos and interactive laser discs that excite children of all ages to learn about a variety of subjects.

External Affairs of a chemical company.

Earth Foundation

5151 Mitchelldale, Suite B-11 Houston, TX 77092 (713) 686-1205

Fax: (713) 686-6561

E-Mail: EarthFound@aol.com

Each year thousands of schools participate in the Earth Foundation's Rescue the Rainforest Project. Thus far, the network of active environmental teachers and students is responsible for adopting over 20,000 acres of rainforest. A free "Rainforest Project Kit" is available to educators. The kit, which includes curriculum, videos, instructions, and a ready-made fundraising project, contains everything a school will need to supplement an ecology unit with a teaching method called "Solution-Based Teaching." Upon completion, participating schools receive a certificate recognizing them for the acres adopted and written updates about the area being preserved. Schools that adopt three or more acres receive a free follow-up video that shows students live footage of the area. Call 1-(800)-5MONKEY for a free "Rescue the Rainforest Kit" and for more information about this project or the Coral Reef Rescue Campaign. 42

East Ohio Gas

Educational Affairs Department P.O. Box 5759 Cleveland, OH 44101-0759 (216) 736-6218

Fax: (216) 736-5323

Promotes energy awareness in the community and emphasizes the importance of natural gas. Provides educational resources, free of charge, to primary school and secondary school educators in the areas served by East Ohio Gas. A free Educational Resources & Awards Catalog offers a variety of programs and an extensive media library. New topics include natural gas vehicles, math minigrants, and parental resources.

An organization dedicated to environmental education and conservation.

A natural gas utility serving over one million customers in a 23-county area throughout northeast and southeast Ohio.

Edison Electric Institute (EEI)

Order and Billing 701 Pennsylvania Avenue, N.W. Washington, DC 20004-2696 1-(800) 334-5453

Fax: 1-(800) 525-5562

Suggests that you first contact your local electric utility. Many utilities have educational programs about energy and the environment for schools. EEI's publications catalog is free. Other publications are available for a fee. 44

Edison Plaza Museum

P.O. Box 3652 Beaumont, TX 77704 (409) 839-3089 Fax: (409) 839-3077

Contains the largest collection of original Edison artifacts west of the Mississippi River. All eight major fields of Edison's achievement are represented. The museum is housed in the historic Travis Street Substation—the first building to distribute electric power in east Texas. Exhibits include past, present, and future energy technologies. A free guide book, brochure, and children's book are available upon request and can be mailed anywhere. **45**

Educational Development Specialists

5505 E. Carson Street, Suite 250 Lakewood, CA 90713 (310) 420-6814

Fax: (310) 420-1485

Offers the Think Earth education program nationwide to sponsors who give the program to schools. This award-winning program interrelates air, land, water, and energy topics into a comprehensive environmental education school pack. It contains units for students in kindergarten through grade 6, plus a fully animated video. A free catalog is available on the program. 46

An association of investor-owned electric utility companies.

Established in 1982 by Gulf States Utilities Company as a nonprofit, educational institution to focus on the inventions of Thomas A. Edison and show how the electric industry has expanded on his patents to improve the quality of life.

Energy and environmental education program developers and distributors.

Energy Source Education Council

Program Distribution Office 5505 E. Carson Street, Suite 250 Lakewood, CA 90713 (310) 420-6814

Fax: (310) 420-1485

Has an Energy Source Education Program that is financially supported by member organizations (mostly utilities) from the private sector. Material is sold to the utility companies who then distribute it at no charge to classrooms in their service areas. Material to others is available for a fee. A free catalog is available. 47 A nonprofit organization involved in developing and distributing quality energy educational programs.

Enterprise for Education

1316 Third Street, Suite 103 Santa Monica, CA 90401 (310) 394-9864

Fax: (310) 394-3539

Publishes *Energy 90s*, the Energy and Environmental *Skill Builder* series, and the *Math at Work* series. Products range from in-depth, semester-long programs to short, one- to five-classroom period lessons on energy and environmental issues. All publications are printed in full color and include up-to-date information and an abundance of science experiments and classroom activities.

The *Skill Builder* series, 8- and 16-page booklets, comprises the following topics:

- Environmental Skill Builders—"Using Our Resources Wisely" (grades 2-4); "The Greenhouse Effect and Global Warming" (grades 6-12); and "Percentages Help an Environmental Engineer" (grades 6-8)
- Conservation *Skill Build-ers*—"Efficiency of Electric Appliances" (grades 6-10)

Offers booklets for primary school and secondary school science classes FREE from most utilities.

"Climate and Comfort" (grades 6-12); and "Is Efficiency the Best Energy Source?" (grades 9-12)

- Nuclear Energy Skill Builders—"Nuclear Reactor" (grades 8-12); "The Atom and Radiation" (grades 6-12); and "Nuclear Fuel Cycle" (grades 8-12)
- Fossil Fuel *Skill Builders*—"Coal: The Once and Future King?" (grades 6-9); "Natural Gas" (grades 6-12); "Geology of Oil" (grades 6-12); and "Refining Oil" (grades 8-12)
- Electricity Skill Builders—"Mouse House Surprise," a 32-page Teacher BIG book and student little book (grades K-2); "Paths for Electricity" (safety) (grades 3-5); "Energy Transformations" (grades 4-9); "Generating Electricity" (grades 5-9); "Sources of Electricity" (grades 5-9); "Demand for Electricity" (grades 6-9); "Working With Energy Graphs" (grades 6-12); "Measuring Helps an Electrician Wire an Apartment" (grades 4-6); "Electricity from Wind, Water & Sunlight" (grades 4-8), which includes a lab activity kit; and "Risk: Taking Chances, Making Choices" (grades 6-10).

When available, Enterprise's materials are provided free of charge by most utilities. Materials also may be purchased directly from the publisher. 48

Environmental Education Associates, Inc. (EEA)

1211 Connecticut Avenue, N.W., Suite 812 Washington, DC 20036 (202) 296-4572

Fax: (202) 452-9370

Publishes and presents *Borrowed Time*, an interdisciplinary school curriculum and training program designed to help intermediate and secondary school teachers examine, understand, and teach today's complex waste management issues. The *Borrowed Time* workshops are presented nationally through sponsorship, and free registration includes a complementary copy of curriculum materials. Educators who would like more information about any planned workshops in their area should contact EEA by phone or mail. 49

An environmental services firm based in Washington, DC.

Environmental Hazards Management Institute (EHMI)

10 Newmarket Road P.O. Box 932 Durham, NH 03824 (603) 868-1496

Fax: (603) 868-1547

Offers a number of educational products for adults and students in kindergarten through grade 12. Included is the newsletter *EHMI Earth Express*™, designed for elementary school-age children to foster their awareness and understanding of environmental issues. Also offered for this age level is Kids Leading the Way in Energy Conservation™, an empowering color-in poster. The "Automobile Case for the EnvironmentTM" series of multimedia educational kits is offered for high school students. EHMI's "Home Environment Wheel™" addresses energy efficiency and indoor air quality at home. There is a fee for all educational materials, but discounts are available for bulk orders. A free catalog is available.

A nonprofit nonpartisan organization dedicated to resolving environmental problems through education and relationship building.

EV Media

612 Colorado Avenue, Suite 111 Santa Monica, CA 90401 (310) 394-3980

Fax: (310) 394-3539

Provides publications and activity kits on electric vehicles (EV) for schools and the general public. Materials range from color booklets for secondary school students and adults to teacher guides, electric vehicle model kits, and discussion leader guides free from many electric utilities with EV programs. Materials cover electric vehicles, electricity, energy efficiency conservation. Titles include Electric Car 1995-96, a 16-page color booklet (for grades 7 through 12 and adults); the 100page Teacher's Electric Vehicle Book, everything a teacher needs to conduct a unit on electric vehicles; "The Electric Flyer Model Kit," which includes everything needed to build a working, tabletop size model electric vehicle; and "The Electric Vehicle Classroom Kit," which includes a classroom set of color booklets, the Teacher's Electric Vehicle Book, and five "Electric Flyer Model" kits. The Battery/Charger option for the EV "Classroom Kit" includes 5 rechargeable 1.5 volt AA Ni-cad batteries and a fourunit battery charger. 51

Exxon Company, U.S.A.

Public Affairs P.O. Box 2180 Houston, TX 77252-2180 (713) 656-8758

Fax: (713) 656-6267

Offers a collection of scientific reports and brochures that document the environmental recovery of Prince William Sound, Alaska, following the 1989 Valdez oil spill. Also available is the 22-minute video "Scientists and the Alaska Oil Spill" and the video and lesson plan on artificial reefs "Aquariums Without Walls." The materials are free, but quantities are limited. 52

An educational publishing company providing electric vehicle-related materials.

Oil company department that responds to public inquiries pertaining to energy and environmental issues.

Flexible Packaging Educational Foundation

1090 Vermont Avenue, N.W., Suite 500 Washington, DC 20005 (202) 842-3839

Fax: (202) 842-3841

Offers Less Waste in the First Place: Six Lessons on Packaging, Flexible Packaging and Source Reduction, a lesson guide on packaging, free to educators. Appropriate for students in grades 4 through 10, the lessons discuss the historic, scientific, social, and environmental considerations involved in the design, development, and disposal of packaging. Included are instructions for a "hands-on" packaging design contest for students and suggestions on how to involve the local community. The lesson plan also features a listing, which can be used as a handout, of other resources for more information or further reading and an explanation of common myths surrounding packaging and garbage. 53

A trade association of manufacturers and suppliers of flexible (or nonrigid) packaging, supporting educational efforts on the purpose of packaging and its role in the first "R" of waste management—reduction.

Florida Energy Office

Department of Community Affairs 2740 Centerview Drive Tallahassee, FL 32399-2100 (904) 488-2475

Fax: (904) 488-7688

Focuses on solar energy and conservation. Renewable Energy Activities for Middle Grades, lesson plans for students in grades 6 through 8, is available. Solar and Energy Conservation Projects for Students is available to elementary school teachers. Another publication, Energy Research Projects Guide, assists students in their selection of energy topics for science fair projects. Single copies are free of charge to Florida teachers and students.

The State's point of contact on all energy-related matters, issues, and programs.

Florida Power & Light Company

Energy Encounter P.O. Box 128 Ft. Pierce, FL 34954 (407) 468-4111

Fax: (407) 467-7565

Provides limited free energy educational resources within the Florida Power & Light service area. Sponsors an electrical safety poster contest for elementary and middle schools. Offers a speakers' bureau, special environmental education presentations on manatees and sea turtles, and a series of environmental education pamphlets. Operates the Energy Encounter visitors' center at the St. Lucie Nuclear Power Plant on Hutchinson Island. The center is open to the public and offers physical and environmental science presentations to school groups. Presentations meet the science objectives for Florida. Also offers environmental tours of the Barley Barber Swamp and Turtle Beach Nature Trail.

A regulated investorowned utility that serves more than 3 million customers in Florida.

55

Florida Solar Energy Center (FSEC)

1679 Clearlake Road Cocoa, Florida 32922-5703 (407) 638-1000

Fax: (407) 638-1010

Offers some free publications on solar water heating, energy-efficient buildings, transportation, and lighting. Provides workshops and information packets to students, teachers, and energy profes-An energy/environmental sionals. packet that emphasizes individual responsibility for the welfare of our environment was created at FSEC for primary school- and middle school-age children. It revolves around a character known as the "Planet Janitor" and includes a Spanish-English edition of the Planet Janitor Coloring Book. This packet is distributed for FSEC by DOE's Energy Efficiency and Renewable Energy Clearinghouse (EREC). For more information call 1-800-DOE-EREC. 56

The energy institute for the State University System, FSEC's mission is to conduct research on alternative energy technologies, ensure the quality of solar energy equipment, and educate people about their energy options.

Foodservice & Packaging Institute, Inc.

1901 North Moore Street, Suite 1111 Arlington, VA 22209 (703) 527-7505

Fax: (703) 527-7512

Now offers three issue sheets—"Environment," "Sanitation," and "Lifestyle"—that explain the importance of foodservice disposable products to today's consumers. These informative single-page sheets are appropriate for middle school and high school students. FPI has just published the Environmental Stewardship Report, a detailed guide to the foodservice disposables industry's environmental accomplishments. The report is a useful resource for educators to use for their reference. Individual copies of FPI materials are free of charge to educators. Contact FPI to receive the price for larger quantities. 57

A nonprofit trade association for manufacturers, suppliers, and distributors of foodservice disposable products. These products consist of single-use cups, plates, bowls, bags, cutlery, trays, hinged-lid "clamshell" containers, and other paper, plastic, and aluminum items. Foodservice & Packaging Institute, Inc. (FPI) supports the environmentally responsible manufacture, distribution, use, and disposal of foodservice disposables.

Frey Scientific 905 Hickory Lane Mansfield, OH 44905 1-(800) 225-3739

Fax: (419) 589-1522

Offers a general science catalog that includes over 75 pages of products for earth science and ecology study. Product line consists of books, charts and posters, videos and video discs, software, kits, games, manipulatives, general supplies and equipment, and more. Products are available for a fee; catalog is free of charge. 58

A full-line supplier of educational materials, equipment, and supplies for science, designed for students from kindergarten through college.

Geothermal Education Office

664 Hilary Drive Tiburon, CA 94920 (415) 435-4574 1-(800) 866-4436

Fax: (415) 435-7737

Provides free booklets, small posters, newsletters, and selected geothermal industry publications (some in class sets). Available for a fee are large posters, an elementary-level video with script and glossary, and a 90-page geothermal curriculum supplement for grades 4 through 8. The curriculum covers the geology, history, and uses of geothermal energy, placed in the context of today's energy needs. Includes copy-ready student information pages; science experiments; math, language, arts, and social studies activities; a glossary; and other suggested resources. 59

A nonprofit educational organization serving teachers and students nationwide to increase awareness and understanding of geothermal energy.

Global Issues Resource Center

East I, Cuyahoga Community College 4250 Richmond Road Cleveland, OH 44122 (216) 987-2224

Fax: (216) 987-2053

For a fee, the Center provides to primary school and secondary school educators a variety of workshops that address a range of topics and emphasize interdisciplinary and hands-on strategies. The *Energy Choices for the Future* is provided to educators for grades 4 through 7. Teacher and student materials include a "Teacher's Guide and Resource Box." Subject-specific bibliographies (energy, environment, conflict resolution, global issues) are available for a nominal fee. **60**

A nonprofit library and educational resource, which works in partnership with foundations, Federal agencies, and school districts, that provides innovative programs and teacher training focusing on global issues, energy, environment, and conflict resolution.

Hawaiian Electric Company, Inc.

Education & Consumer Affairs Division 900 Richards Street Honolulu, HI 96813 (808) 543-7511

Fax: (808) 543-4420

Provides free teaching materials to educators in the areas served by Hawaiian Electric and its subsidiaries Maui Electric Company and Hawaii Electric Light Company. Services include classroom programs, career programs, resources for educators, certified workshops for educators, video, and classroom literature for kindergarten through grade 12. "Hawaii's Electric Century," an education module for Hawaiian history classes, is available for use in grades 4, 7, and 11. 61

An investor-owned electric utility that serves the island of Oahu in Hawaii.

Houston Lighting & Power Company

Community Relations/Educational Services 611 Walker P. O. Box 1700 Houston, TX 77251 (713) 228-9211 or (713) 229-7579

Fax: (713) 220-5016

Provides free educational services to kindergarten through grade 12 educators in the Houston Lighting & Power service area. Services include classroom presentations, films, videotapes, publications, and activity booklets for students. Resources and newsletters for educators and teacher in-service training, as well as teacher workshops, are also available. In addition, curriculum supplements are available on science and social studies topics and on electricity safety and fuel sources. 62

An investor-owned electric utility, headquartered in Houston, serving a 5,000-square-mile area on the Texas Gulf Coast.

Illinois Department of Commerce and Community Affairs

Office of Coal Development and Marketing 325 West Adams, Room 300 Springfield, IL 62704-1892 (217) 785-2800

Provides materials on coal production, distribution, usage, research, development, and demonstration of clean coal technologies. Materials available include: Coal is Cool Activity Book, with 60 coal-related puzzles, is recommended for kindergarten through grade 4; Illinois Coal Teacher's Guide, developed with lesson plans and hands-on activities for grades 5 through 8; a video, "Kids, Coal and the Environment"; and a poster, What's Coal Got To Do With You? All materials are free. Coal awareness and education efforts target the general public through the media, schools, and special programs in an attempt to diffuse myths regarding coal and to disseminate sound, scientific information. An order form listing all the various publications is available upon request. 63

A State coal program committed to the continued and expanded use of Illinois' coal resources in environmentally safe and economically viable ways.

Independent Petroleum Association of America

Information Services Department 1101 16th Street, N.W. Washington, DC 20036 (202) 857-4722

Fax: (202) 857-4799

Provides for a fee an annual yearbook of statistics on the crude oil- and natural gas-producing States. *The Oil & Natural Gas Producing Industry In Your State* compiles exploration and production statistics for each producing State in a simple manner, suitable for junior high and senior high school students. **64**

The national association representing independent crude oil and natural gas explorers/producers.

Indiana Department of Education

Office of Program Development Center for School Improvement & Performance Room 229, State House Indianapolis, IN 46204-2798 (317) 232-9139

Fax: (317) 232-9121

Provides energy, economics, and environmental curricular materials and workshops to kindergarten through grade 12 classroom teachers across Indiana. The Energy, Economics, and the Environment publication consists of case studies supported by classroom activities, actions, and issues. Completing the Cycle-It's Up to Me contains 55 interdisciplinary lessons that focus on recycling and the environment. This curriculum for kindergarten through grade 8 was written by classroom teachers from Frankfort Community Schools and Crawfordsville Community Schools. The Phase I booklet is designed for use in kindergarten through grade 3, and Phase II is for use in grades 4 through 8. A minimal charge will be assessed for each A list of other enpublication. vironmental and energy education materials is available upon request. 65

A State education agency that provides primary school and secondary school teachers with staff development programs and curricular assistance in environmental and energy education.

The Institute for Chemical Education (ICE)

Department of Chemistry University of Wisconsin-Madison 1101 University Avenue Madison, WI 53706-1396 (608) 262-3033 1-(800) 991-5534

Fax: (608) 265-8094

E-Mail: ICE@chem.wisc.edu

Provides chemistry education materials and workshops to kindergarten through grade 12 teachers throughout the world. The publications, kits, and workshops are designed to help teachers include hands-on science activities in their everyday classrooms. ICE's Topics in Chemistry series provides background chemical and environmental information on everyday topics. Topics include: Acid Rain—a brief history of acid precipitation; the sources of gases that cause acid rain and their conversion to acid in the atmosphere; details of the effects of acid precipitation on the environment; and available alternatives to reduce emissions that contribute to acid rain. Acid Rain, Experimental Supplement—five experiments showing the effects of acid rain on the environment, using easy-to-find materials; notes on presentation and curriculum integration are included. Ozone-the chemistry, uses, and importance of ozone and chlorofluorocarbons; a history of theories involving their interactions in the atmosphere; the effect of ozone depletion on life; examination of changes in public policy; and the response of industry. 66

A nonprofit educational organization that provides chemistry resources and graduate-level workshops for kindergarten through grade 12 teachers to better integrate hands-on chemistry into their classrooms.

Integrated Waste Services Association

1401 H Street, N.W., Suite 220 Washington, DC 20005 (202) 467-6240

Fax: (202) 467-6225

IWSA offers WasteWorld, a middle school curriculum addressing environmental, economic, and energy-related issues associated with municipal solid waste management. Originally developed with support of DOE's National Renewable Energy Laboratory, this multimedia simulation presents a balanced view of source reduction, recycling, waste-to-energy, and landfilling, enabling students to recommend solid waste management plans for their communities. The updated package includes a slide show, interactive computer software for both Macintosh and Windows (also available in color on CD-ROM), revised student activities and teacher's guide, glossary, and resources to supplement student research. Write or call for more information. **67**

Integrated Waste Services Association (IWSA) represents companies that use trash to produce energy as part of a community's integrated solid waste plans. Waste-to-energy facilities use waste to generate enough energy to power 1.3 million homes.

Jacksonville Electric Authority (JEA)

21 West Church Street Jacksonville, FL 32202 (904) 632-5200

Fax: (904) 632-7071

free energy educational Provides (booklets, resources posters, kits, materials, audio/visual etc., kindergarten through grade 12) to schools within the JEA service area. Services include student and teacher materials, speakers, power plant tours, teacher seminars with affiliates: Pelotes Island Preserve, Tree Hill, and the University of North Florida. A free fact sheet that describes the services and materials is available upon request.

A municipal electric utility serving over 320,000 customers in Jacksonville, FL, and vicinity.

Jersey Central Power & Light Company

300 Madison Avenue Morristown, NJ 07960 (201) 455-8783

Fax: (201) 455-8976

Provides free energy education resources for all grade levels within the JCP&L service area. Services available include a speakers' bureau, classroom presentations, and a free-loan video library.

Headquartered in Morristown, NJ, Jersey Central Power & Light Company (JCP&L) serves 13 counties throughout New Jersey. JCP&L is a subsidiary of General Public Utilities Corporation, an investorowned electric utility based in Parsippany, NJ.

Johnson Controls, Inc.

Academy of Energy Education 507 E. Michigan Street Milwaukee, WI 53202 (414) 274-4197 (414) 274-5574 Fax: (414) 274-5030

E-Mail: mike.d.ewald@jci.com

michelle.l.tanem@jci.com

Offers, in partnership with the National Energy Foundation and Upper Iowa University, the Academy of Energy Education, a curriculum-enhancing program that promotes energy education in kindergarten through grade 12 and expands into a school-to-work transition experience. Designed to encourage students to explore energy usage and its impact on the environment, the programs include: Energy Fun for kindergarten through grade 3; Energy Fundamentals for grades 4 through 6; the Energy Action Patrol for grades 5 through 8; Energy Action Teams for grades 6 through 9; and Energy Action Technology for grades 9 through 12. For older students, the Academy features school-to-work and high school-tocollege transition pro-grams. For more information, call your local Johnson Controls office or NEF at 1-(800) 616-TEAM. 70

Provides facility services and building control system solutions to meet the specific needs of all types of nonresidential buildings, which include training staff to operate equipment more efficiently, installing, maintaining, and servicing HVAC controls and mechanical systems, lighting controls, and life safety systems; performance contracting; and complete outsourcing operations.

Keep America Beautiful, Inc.

9 West Broad Street Stamford, CT 06902 (203) 323-8987

Offers educational materials for use in kindergarten through grade 12. Waste in Place, a curriculum supplement for educators of kindergarten through grade 6, introduces children to responsible waste handling in over 30 hands-on lesson plans; and Waste: A Hidden Resource, a curriculum supplement for educators of grades 7 through 12, provides an overview of solid waste and encourages students' investigation and decisionmaking through role-playing in a mock crisis. Both are available for a Other resources include Plastics Recycling By The Numbers, a classroom activity guide designed to teach students in grades 3 and 4 about plastic and its uses, the Plastic Container Coding System, and how to separate plastics for recycling; Mister Rogers' Activity Book for Young Children, which provides lessons on reuse and recycling; and "Pollution Pointers For Elementary Students," a one-page fact sheet which describes 24 things children can do. "Woody's Wise Waste Handling Tips for Kids" provides simple projects children can perform at home and in the classroom. These are available for a nominal fee. A free materials catalog is available upon request. 71

A national nonprofit public education organization that is dedicated to improving waste-handling practices in American communities.

Kids For A Clean Environment (Kids F.A.C.E.)

P.O. Box 158254 Nashville, TN 37215 1-(800) 952-3223

Fax: (615) 333-9879

Provides free membership to children and teachers. Included with membership is the membership guide Our World, Our Future: A Kids Guide to Kids for a Clean Environment; a membership certificate; and a subscription to the bimonthly newsletter Kids F.A.C.E. Illustrated. Material focuses on environmental topics and offers proactive projects that can be performed at home or at school. Their current project is the Kids International Earth Flag. Children may send in squares with their idea of a clean environment drawn or painted on them. For instructions, send a selfaddressed stamped envelope to the above address. 72

A nonprofit children's environmental organization.

Kissimmee Utility Authority (KUA)

Office of Communications P.O. Box 423219 Kissimmee, FL 34742-3219 (407) 933-7777

Fax: (407) 933-1761

Provides free energy educational resources (coloring books, booklets, calendars, posters, kits, audio/visual materials, etc., for use in kindergarten through grade 12) to schools within the KUA service area. Services include student and teacher materials, speakers' bureau, power plant and energy control center tours, and teacher seminars with neighboring utilities. A free color brochure highlighting the services and materials is available upon request. 73

A municipal electric utility serving over 45,000 customers in Kissimmee, FL, and vicinity.

The Learning Works

P.O. Box 6187, Dept. NEIC Santa Barbara, CA 93160 (805) 964-4220

Fax: (805) 964-1466

Publishes educational activity books for youth ages 4 to 17. Energy-related titles include: Weather, Electricity, Environmental Investigations; Science Sampler; Primary Science Sampler; Earth Book for Kids: Activities to Help Heal the Environment; My Earth Book; and Likeable Recyclables. In addition, stamps with environmental themes are available for a fee and may be ordered from school supply stores, bookstores, or the publisher. A free catalog is available upon request. 74

A publishing firm specializing in children's educational books.

Midwest Renewable Energy Association

P.O. Box 249 Amherst, WI 54406 (715) 824-5166

Fax: (715) 824-5399

Offers special workshop series for teachers, children, and the general public. Hosts the Midwest Renewable Energy Fair every June at the Portage County Fairgrounds in Amherst, WI. This annual event features workshops, exhibits, speakers, a model home, renewable energy home tours, alternatively fueled vehicle showcase, regional Junior Solar Sprint competition, entertainment, and more. Offers year-round workshops on renewable energy and energy efficiency. A Renewable Energy/Energy Efficiency Directory is available for a minimal fee, as is ReNews, a quarterly newsletter. Bright Ideas, a children's newsletter, is available with the purchase of a children's membership. 75

A grassroots private nonprofit educational organization dedicated to promoting renewable energy and energy efficiency through education and demonstration.

Mineral Information Institute (MII)

475 17th Street, Suite 510 Denver, CO 80202 (303) 297-3226

Fax: (303) 295-6463

Provides minerals and energy information at no cost to teachers. Companies and other organizations may purchase MII materials at a nominal cost. Materials include posters, lessons, activities, and referrals to other sources providing free or low-cost educational information. The purpose of all materials is to increase awareness that Everything We Have and Everything We Use Comes From Our Natural Resources. MII sponsored and continues to support revisions to the high school integrated science textbook Global Science: Energy, Resources, Environment. 76

A nonprofit educational organization providing free resources and contacts to support classroom teachers. Also provides technical support to new and established earth science programs.

Minnesota Department of Public Service

121 7th Place East, Suite 200 St. Paul, MN 55101-2145 (612) 296-5175

Fax: (612) 296-0201

Provides a wide range of energy conservation materials (primarily brochures and fact sheets) targeted to residential, commercial, and industrial audiences. This information is designed to encourage specific conservation practices and to increase public awareness of energy/environmental issues. Some of these free materials may be appropriate for students in grades 8 through 12. More direct education efforts are geared toward Minnesota home builders and community energy The Department's Energy auditors. Information Center has a full-time staff to answer consumers' energy-related questions and to provide individualized advice as needed. 77

A State energy office which protects the public in utility rate and quality of service matters, provides a range of energy information, and promotes conservation and renewable resource development.

National Aeronautics and Space Administration (NASA)

300 E Street, S.W., Code FE Washington, DC 20546-0001

Provides to educators free of charge: teachers guides with classroom activities explaining NASA spaceflights and projects; NASA educational program information; NASA fact sheets; educational briefs; brochures; lithographs; wallsheets; nontechnical publications; and access to videotapes and slide sets for duplication. New NASA educational materials are listed triennially in the newsletter *Educational Horizons*, which is provided to educators. Educators can obtain a subscription from NASA at the address listed above. **78**

A Federal agency with programs to advance the Nation's education goals through expanding and enhancing the scientific and technological competence of all students and educators.

National Arbor Day Foundation

100 Arbor Avenue Nebraska City, NE 68410 (402) 474-5655

Fax: (402) 474-0820

Provides free information on tree planting and care, including correctly planting windbreaks and shelterbelts, in the Conservation Trees and Trees for America brochures. Also has available for a nominal fee a book on Trees for Fuelwood: A Step Toward Energy Diversity, and, for elementary school- and middle school-age children, curriculum kits that stress the contributions made by trees and the importance of environmental stewardship. For samples of the free educational materials, including the Celebrate Arbor Day! booklet, and to receive information about the curriculum kits, write or call to request an Educational Materials Sampler. 79

A nonprofit education organization dedicated to tree planting, conservation, and environmental stewardship.

National Association of Conservation Districts (NACD)

408 East Main P.O. Box 855 League City, TX 77574-0855 (713) 332-3402 1-(800) 825-5547 Fax: (713) 332-5259

Sponsors conservation education recognition programs for primary school and secondary school teachers as well as a poster contest for students. Publishes and distributes educational materials about conserving soil and water and other natural resources. Free materials include an education catalog containing all educational products available from NACD, information about the contest, and single copies of the Guide to Careers in Natural Resource Management. 80

A nongovernmental nonprofit organization representing nearly 3,000 soil and water conservation districts and their State associations in the 50 States and U.S. territories. NACD serves its member districts as one voice, utilizing the force of local initiative and self-government, in the conservation and development of natural resources.

National Center for Appropriate Technology

P.O. Box 3838 **Butte, MT 59701** (406) 494-4572

Fax: (406) 494-2905

Provides a curriculum guide of experiments, readings, projects, and resource referrals for a course in photovoltaic technology. These materials are targeted for junior high school and high school science classes. The curriculum guide is based on the Science, Technology, and Society (STS) model. Educational materials on energy conservation and efficiency and sustainable communities are also available. 81

A nonprofit organization founded in 1976 that works in the areas of energy conservation and renewable energy technologies, resource-efficient housing, and sustainable agriculture.

National Corn Growers Association

1000 Executive Parkway, #105 St. Louis, MO 63141 (314) 275-9915

Fax: (314) 275-7061

Provides teachers with a free educational "Corn-A National Renewable Resource," which includes materials that recognize corn as a reservoir of energy and a renewable substitute for products made from expendable fossil fuels. Components of the kit include 30 student tabloids, a video, poster, resource booklet, activity sheets, sample experiments, and corn products. Accompanying Teacher's Guides provide supplementary information integration ideas. The World of Corn resource booklet, a statistical look at corn markets and trends, can also be requested separately and is provided free by contacting the association.

A nonprofit commodity organization representing more than 29,600 corn farmers and 24 State-affiliated corn grower associations.

National Cotton Council of America

Education Materials 1918 N. Parkway Memphis, TN 38112 (901) 274-9030

Provides for a nominal fee a variety of print and audiovisual materials on cotton, including a videotape about the highly successful and environmentally sound "National Boll Weevil Eradication Program." The tape, primarily for grades 3 through 12, includes a 3-minute program aired on the "Today's Environment" television series on the Discovery Channel. The eradication program uses an integrated approach for eliminating one of the U.S. cotton industry's major pests, such as plowing down cotton stalks after harvest, the strategic placement of traps baited with a pheromone (sex attractant), and the judicious application of crop protection products. 83

A nonprofit commodity organization representing 35,000 producers and processors of raw cotton. The organization is dedicated to strengthening the cotton industry's ability to compete effectively and profitably in fiber and oil-seed markets at home and abroad.

National Energy Education Development Project (NEED)

1920 Association Drive, Suite 414 Reston, VA 22091 (703) 860-5029

Fax: (703) 860-2903

Through hands-on science, math, museums, drama, art, and music, students reach out to family and community with energy education programs that they developed have themselves. Memberships are available to teachers at little or no cost. Members can receive the following: the "Local Participation Kit"—a curriculum packet filled with hundreds of activities; energy and leadership training workshops across the United States; a subscription to *Energy* Exchange magazine; the opportunity to order a variety of supplemental materials free of charge; and the chance to participate in the Annual Youth Awards Program—a program dedicated to recognizing the most creative and innovative energy programs in the United States. New activities for the 1995-1996 school year include: Where in the U.S. is all the Energy?--a mapping activity to help students locate the Nation's energy resources; The Blueprint for Energy Education—the curriculum guide that helps teachers and students facilitate energy education programs in their schools and communities; Energy Around the World—an interactive activity that encourages students to look at the global energy picture; and Energy Math Challenge—a math reinforcement activity that uses energy facts and figures to educate and challenge. Also offered for a reduced cost will be a set of videos focusing on Renewable Energy/Energy Conservation and Fossil Energy. In fall 1996, the 1996-1997 materials will be released with a series of new activities.

A national network of students, educators, and leaders in government and industry dedicated to providing comprehensive energy programming.

National Energy Foundation (NEF)

Resources for Education National Office 5225 Wiley Post Way, Suite 170 Salt Lake City, UT 84116 (801) 539-1406

Fax: (801) 539-1451 E-Mail: nef@xmission.com

Web: http://www.xmission.com/~nef

Offers a wide variety of energy, environmental, and mineral resource education materials for kindergarten through grade 12. New items include a new curriculum called Decision Making in a Multiple Use Environment, which uses a Montana case study to explore today's multifaceted land use educational posters including Aggregates: Nature's Building Blocks; Coal Technology: The Future is Now; De Montanas a Metales (Spanish versions of From Mountains to Metals); as well as updated versions of the Nuclear Energy, Coal, and From Mountains to Metals posters; and updated versions of the Coal, Oil, and Nuclear Energists, which are newspaperstyle teaching tools. NEF also offers inservice training programs so NEF materials can be properly used and integrated into the existing school curriculum. Some of those programs include: Energy Action in Schools; Learning to be Wise; and Out of the Rock. Materials can be purchased in single issues or in bulk. In-service programs are tailor-made to the school system and sponsoring agency budget requirements. A materials catalog is available free upon request. 85

A nonprofit educational organization providing educational resources and training services to educators

National Geographic Society

Educational Services 1145 17th Street, N.W. Washington, DC 20036 1-(800) 368-2728

Fax: (301) 921-1575

Provides educational materials designed for the kindergarten through grade 12 earth, physical, and environmental sciences curriculum. Materials include filmstrips, videos, books, learning kits, interactive videodiscs, and CD-ROM's. The National Geographic Kids Network, a telecommunications-based science curriculum for elementary school-grade levels, is also available. Free catalogs are available upon request. **86**

A nonprofit organization.

National Mining Association

1130 17th Street, N.W. Washington, DC 20036

(202) 463-2625 Fax: (202) 857-0135

Provides educational materials on mining in the United States and the importance of minerals in our daily lives. A video, "Mining: Discoveries for Progress," and a brochure, *What Mining Means to Americans*, are available for a fee and for free, respectively, to the general public. Both are available free to a teacher requesting them on school letterhead. Other materials are available upon request. **87**

A trade association representing producers of America's coal, metals, industrial minerals, and agricultural minerals; mining equipment manufacturers; and engineering, consulting, and financial institutions that serve the mining industry.

National Propane Gas Association

1600 Eisenhower Lane, Suite 100 Lisle, IL 60532 (708) 515-0600

Fax: (708) 515-8774

E-Mail: npga@genie.geis.com

Provides environmental, safety, and propane industry information in fact sheets, a coloring book, and an activity book. Also available are an Energy Costs Comparison Calculator and four propane gas student education kits: one for use in kindergarten through grade 3; in grades 4 through 6; in junior high school; and in high school. **88**

A national trade association comprising 3,600 companies representing all aspects of the propane industry.

National Rural Electric Cooperative Association

Communications Department 4301 Wilson Boulevard, CD10-222 Arlington, Virginia 22203 (703) 907-5709

Fax: (703) 907-5519

Provides educational booklets and pamphlets aimed at junior and senior high school students (as well as adults). Publications include *History of Rural Electrification*; *Energy and Electricity* (includes a home safety audit); *Facts About America's Rural Electric Systems*; and *Occupations in Rural Electrification*. Publications are for sale. An order form for the materials is available upon request. **89**

A service organization based in Arlington, VA. Represents the Nation's 1,000 nonprofit consumerowned rural electric systems, which provide electric service to more than 25 million people in 46 States.

National Science Foundation

Office of Legislative and Public Affairs 4201 Wilson Boulevard, Room 1245 Arlington, VA 22230 (703) 306-1070

Fax: (703) 306-0157 E-Mail: nstw@nsf.gov

National Science and Technology Week (NSTW), a collaborative effort of the National Science Foundation and corporate sponsors, features partnerships with community institutions (e.g., schools, libraries, museums, zoos); a special focus activity encourages parents to join their children in discovering science in their everyday activities and interests. Materials include an NSTW annual poster, "training activities" packets, and "sharing science" brochures that alert the public to scientific discovery. Activities and materials promote: (1) the sharing of information on science curriculum and education trends; (2) developing "Science Day" activities; (3) organizing communitywide contests or events; and, (4) recruiting scientific and technical personnel to advise children about careers. 90

National Science Resources Center (NSRC)

Arts and Industries Building, Room 1201 Washington, DC 20560 (202) 357-2555

Fax: (202) 786-2028

Collects and disseminates information about exemplary science teaching resources, develops innovative science curriculum materials, and sponsors outreach activities to help school districts develop and sustain hands-on science programs. Relevant titles include: Resources for Teaching Elementary School Science, an elementary science resource guide; Electric Circuits, Magnets and Motors; and Ecosystems, inquiry-centered curriculum units in the Science and Technology for Children (STC) elementary science program. 91

A Federal agency that supports basic science and engineering research and education.

NSRC is operated by the Smithsonian Institution and the National Academy of Sciences to improve the teaching of science in the Nation's schools.

National Science Teachers Association

Publications 1840 Wilson Boulevard Arlington, VA 22201 (703) 243-7100 1-(800) 722-NSTA

Fax: (703) 243-7177

Web: http://www.nsta.org

Publishes educational products and activity books for students from kindergarten through college. Titles include: Earth: The Water Planet; Water, Stones & Fossil Bones; Ten-Minute Field Trips; Energy Sources and Natural Fuels; Taking Charge: An Introduction to Electricity; Water Matters; Middle Level Energy Series; Project Earth Science: Astronomy; Project Earth Science: Meteorology; Project Earth Science: Physical Oceanography; Project Earth Science: Earth At Hand; Geology; and Understanding Our Environment. These books are available for a fee. A free catalog is available upon request.

The largest science teachers association in the United States, working to improve the quality of science education nationwide.

National Wildlife Federation

8925 Leesburg Pike Vienna, VA 22184-0001 1-(800) 432-6564

Fax: (703) 442-7332

Publishes Your Big Backyard, Ranger Rick, National Wildlife, and International Wildlife magazines for children and adults; produces the environmental education activity series *NatureScope* for educators; sponsors National Wildlife Educator's Guide; and produces Animal Tracks Activity Guide for educators, a companion book for children, and Animal Tracks educator resource on the World Wide Web (http://www.nwf. org/nwf). Call toll-free and ask for more information on our educational outreach programs. 93

A nonprofit conservation education organization. The mission of the National Wildlife Federation is to educate, inspire, and assist individuals and organizations of diverse cultures to conserve wildlife and other natural resources and to protect the earth's environment in order to achieve a peaceful, equitable, and sustainable future.

The Natural Gas Vehicle Coalition

1515 Wilson Boulevard, Suite 1030 Arlington, VA 22209 (703) 527-3022

Fax: (703) 527-3025

Acts as a clearinghouse for information on natural gas vehicles for members and the general public. General information packets and the *Member Business Guide*, a list of member equipment suppliers and the products and services they provide, are available free of charge. Also available for a nominal fee is "The Road to Clean Air," a 12-minute educational video which features actress Lindsay Wagner describing the virtues of natural gas vehicles. **94**

A national trade association and commercialization organization supported by gas companies, natural gas vehicle equipment suppliers, local government agencies, and other companies committed to developing profitable, long-term markets for natural gas vehicles.

New York Power Authority

Nuclear Communications 123 Main Street White Plains, NY 10601 (914) 681-6822

Provides free educational programs and resources for primary school and secondary school educators in New York State. Maintains four visitor centers that conduct educational programs, including site tours. Resources include computer software simulating producing and distributing electrical power for grades 6 through 8; videos on energy and the environment; programs such as "Make Your Home a Castle," an energy efficiency kit for grades 4 through 6; and literature to support energy education. Opportunities for teachers include graduate-level Institutes in Energy Education, Science/Technology/Society workshops, business-education partnerships, and a unique "loaned-teacher" program. For additional information, write to New York Power Authority, Education Programs, 99 Washington Avenue, Suite 1950, Albany, NY 12210, or call (518) 427-6580.

The New York Power Authority's mission is to furnish the people of New York State with lower-cost electricity.

New York State Geological Survey

3136 Cultural Education Center Albany, NY 12230-3136 (518) 474-5816

Fax: (518) 473-8496

E-Mail: rfakundi@museum.nysed.gov

Provides free educational leaflets for both students and teachers for kindergarten through grade 12. Provides a limited number of honoraria for college-level geological research in New York State. Conducts workshops and classes in geological sciences through the New York State Museum in Albany, NY. Produces geological maps and reports for both professionals and the general public. A catalog of publications is available free upon request. **96**

The mission of the New York State Geological Survey is to make services available to all agencies and people of New York State; conduct geological research; and cooperate with agencies of other States, Federal Government, educational institutions, and industry in the discovery, analysis, and dissemination of geologic information.

The NoodleHead Network

107 Intervale Avenue Burlington, VT 05401 1-(800) 639-5680 (802) 862-8675

Fax: (802) 864-7135

E-Mail: noodlhed@together.net Web: http://www.together.com/

~noodlhed

Produces and distributes educational videos for kids. Specializes in energy-related videotapes for utilities and the kindergarten through grade 12 school market. Kids play an integral role in the creation of each tape—from scriptwriting to acting to editing. Titles include: "Simple Things You Can Do To Save Energy," "Simple Things You Can Do To Save Energy In Your School," and "KnuckleHead's Electrical Safety Series." Videos are available for purchase in VHS format or with duplication and broadcast rights. Free catalogs and preview copies of the videos are available upon request. 97

An educational video producer and distributor that creates videos from a kid's viewpoint.

Northeast Utilities

Community Relations-Educational Programs P.O. Box 270 Hartford, CT 06141-0270 (203) 665-2752

Fax: (203) 444-4283

Provides educational services free to educators and organizations in the areas served by Northeast Utilities. Offers visits to information centers, tours, classroom presentations, nature trails and environmental education, speakers' bureau, safety presentations, film/video-and computer software-lending libraries, energy/nuclear energy curriculum and related literature, teacher workshops, and teaching kits. Booklets and posters for kindergarten through grade 12 are available. Also has pamphlets on home appliances, insulation, heating and cooling, and weatherization.

An investor-owned electric utility serving Connecticut, western Massachusetts, and New Hampshire.

Connecticut Yankee Information & Science Center 362 Injun Hollow Road Haddam Neck, CT 06424-3099 (203) 267-9279 1-(800) 348-INFO (CT only)

Millstone Information & Science Center 278 Main Street Niantic, CT 06357 (860) 691-4670 1-(800) 428-4234 (CT only) Fax: (860) 691-4676

Northfield Mountain Recreation & Environmental Center 99 Millers Falls Road Northfield, MA 01360 (413) 659-3714 Fax: (413) 659-4460 Public Service of New Hampshire 1000 Elm Street P.O. Box 330 Manchester, NH 03105 (603) 669-4000

The Science & Nature Center at Seabrook Station Box 300, RT 1 Seabrook, NH 03874 (603) 474-9521, Ext. 2727 1-(800) 338-7482 (New England only) Fax: (603) 474-9521, x 2782

Northern Indiana Public Service Company

Corporate Citizenship ATTN: Educational Services 5265 Hohman Avenue Hammond, IN 46320 (219) 647-6215

Fax: (219) 647-4010

Provides, free to primary school and secondary school educators within its service territory, power plant tours, films, videos, publications, activity booklets, and, upon request, a *Teaching Resources Catalog.* 99

A regulated electric and natural gas public utility serving the northern third of Indiana.

Northern States Power Company

Community and Economic Development Department

414 Nicollet Mall (RS4) Minneapolis, MN 55401

(612) 330-6677 (work-based learning)

(612) 330-6538 (speakers)

(612) 330-6048 (tours)

(612) 330-7976 (energy safety demos)

Provides educational services free to educators in the areas served by Northern States Power Company. Offers visits to two nuclear plant training centers and Minnesota's largest coal-fired plant; environmental education curriculum; speakers' bureau; job shadowing; and career exploration. 100

An investor-owned electric and natural gas utility serving parts of Minnesota, Wisconsin, North Dakota, South Dakota, and northern Michigan. **Nuclear Energy Institute**

1776 I Street, N.W., Suite 400 Washington, DC 20006-3708 (202) 739-8000

Fax: (202) 785-4019 E-Mail: jcn@nei.org

Provides a variety of publications on nuclear energy issues, including the benefits of electricity generated by nuclear power, public opinion data on nuclear energy, and statistical data on nuclear energy. Complimentary packets of material are available for students and teachers. A complimentary booklet on nuclear energy is available to the general public. For more information, contact the NEI Publications Office. **101**

Based in Washington, DC, the Nuclear Energy Institute (NEI) is a trade association of the nuclear energy industries.

Nuclear Information and Resource Service

1424 16th Street, N.W., Suite 601 Washington, DC 20036 (202) 328-0002

Fax: (202) 462-2183

E-Mail: nirsnet@igc.apc.org Web: http://www.essential.org/

nirsnet/

Furnishes fact sheets on nuclear waste, safety, general information, and alternative energy. Single copies are Free brochures available available. include 10 Basic Questions About Nuclear Power and Nuclear Power? Consider the The NIRS Energy Audit Alternatives. Manual: How to Audit Campus & City Buildings, also available for a fee, includes chapters on lighting efficiency, heating, and air conditioning designed to help students calculate energy and cost savings for their school (high school and above). Current information on nuclear industry and events is available, as well as a catalog of related articles.

A nonprofit information clearinghouse.

OG&E Electric Services

Community Services P.O. Box 321 MC 1204 Oklahoma City, OK 73101 (405) 553-3015

Fax: (405) 553-3508

Provides educational materials free to educators in the areas served by OG&E Electric Services. Materials include films/videos, literature, multimedia kits with teacher/student materials. Activity booklets and a teacher resource guide are also available. 103

An investor-owned electric utility serving parts of Oklahoma and western Arkansas.

Omaha Public Power District

Consumer Relations Department 444 South 16th Street Mall Omaha, NE 68102-2247(402) 636-3747

Fax: (402) 636-3922

Provides educational services free of charge to schools in the utility's service area. Services include classroom programs and speakers, career planning information, films/videos, tours of power plants and other facilities, and literature for students and teachers in all grades. Also provides information on Omaha Public Power District's Buddy Alert and Safetysaurus Programs. All materials available upon request. 104

A public utility serving the electric needs of customers in eastern Nebraska.

Pacific Gas & Electric Company

Customer Energy Management Department 444 Market Street, Room 1634 - T16A P.O. Box 770000 San Francisco, CA 94177 (415) 973-2232

Fax: (415) 973-4607 E-Mail: SLF1@PGE.com

Provides the Energenius Educational Series, a complete curriculum focusing on energy efficiency and gas and electric safety education for grades 1 through 8. Curriculum materials are provided at no cost to schools within the service territory and can be purchased by schools, utilities, and organizations outside Pacific Gas & Electric's service territory. Energenius Educational Series comes complete with teacher curriculum guide and student activities for each student. The core of the series consists of multi-lesson classroom programs designed to engage students in active, age-appropriate learning and to relate to pace-setting curriculum standards such as those of the State of California. Games and activities can be used inside or outside the classroom and involve both young people and their families.

An investor-owned utility serving more than 4 million residential customers.

Pennsylvania Power & Light Co.

Energy Education Coordinator, A9-4 Two North Ninth Street Allentown, PA 18101-1179 (610) 774-6914

Fax: (610) 774-6503

Provides free energy education teaching materials to educators in the utility's service area. Materials include kindergarten through grade 12 curriculum units (teacher workshops required), Nuclear Energy Seminar for Teachers (NEST: worth 3 continuing education credits), Teacher Environmental Awareness (TEA) workshops, electrical safety programs (including a student poster contest), a minigrant program for teachers (up to \$500 funding), Energy in Education newsletter, College Energy Debate program, Electric Vehicle teachers guides (kindergarten through grade 12), and Electric and Magnetic Field teachers guide (grades 7 through 12). Write or call for schedules of programs or for more information. 106

An investor-owned electric utility serving all or parts of 29 counties covering a 10,000-square-mile area in central eastern Pennsylvania

Polystyrene Packaging Council

1275 K Street, N.W. Suite 400 Washington, DC 20005 (202) 371-2487

Fax: (202) 371-1284

Offers The Polystyrene Packaging and the Environmental Sourcebook, an easy-to-use reference guide for teachers that includes descriptions of available materials involving plastics and the environment. Also offers age-specific classroom activities, which were prepared with the guidance of science teachers nationwide, that look at the role of plastics in our everyday lives. One copy is available free of charge. 107

A nonprofit trade association dedicated to providing information about environmentally responsible methods of solid waste disposal for polystyrene and the growing number of polystyrene recycling programs nationwide. Polystyrene Packaging Council's membership includes manufacturers of polystyrene resin, polystyrene foam and rigid food service packaging, and polystyrene protective shape-molded and loose-fill packaging.

Procter & Gamble

Educational Services P.O. Box 14009 Cincinnati, OH 45250-0009 (513) 945-8450

Fax: (513) 945-8979

Offers the free environmental education teaching kit "Planet Patrol" for grades 4 through 6. Materials teach students how to be a part of the solution to America's growing solid waste crisis. The teaching unit includes teacher's guide, student worksheets, and classroom poster. **108**

Public Affairs Division of a consumer products company.

The Radon Group, Ltd.

P.O. Box 80653 Portland, OR 97280-1653 (503) 245-7092

Fax: (503) 245-7092

Provides easy-to-use "hands-on" kits meeting Education 2000 goals. Products work with all major science texts. Kits contain teacher guide, student masters, vocabulary, and hardware. include the following: "Energy Efficiency for grades 4 through 9; Kits" Conservation Program for grades 10 12; "Electricity/Safety through Kit"/video for grades 3 through 8; "Nuclear Energy Kit" for grades 4 through 9; and "Renewable Kits" for grades 3 through 8. Custom teacher inservice programs are sponsored by participating utilities. Materials are provided free of charge by most utilities. Products may be purchased directly from the company. A free catalog is available.

Hands-on energy education program developers and distributors.

Renew America

1400 16th Street, N.W., Suite 710 Washington, DC 20036 (202) 232-2252

Fax: (202) 232-2617

E-Mail: renewamerica@igc.apc.org

Promotes successful environmental programs to foster their replication and expansion. Publications available for purchase include the *Environmental Success Index*, a directory of more than 1,600 verified programs; and topic reports on various environmental topics. *Kids! Renew America* is also available free of charge. **110**

The Nation's source for environmental solutions.

Safe Energy Communication Council 1717 Massachusetts Avenue, N.W., Suite 805 Washington, DC 20036 (202) 483-8491 Fax: (202) 234-9194

Fax: (202) 234-9194 E-Mail: seccgen@aol.com

Offers a free poster with everyday suggestions on how to save the earth. Publications and graphics that deal with a variety of issues, such as nuclear power, nuclear waste dangers, global warming, energy efficiency, renewable energy, are available for a nominal fee. Titles include: MYTHBusters #8: "Low-Level" Radioactive Waste; MYTHBusters #9: Nuclear Power Economics; and Power Boosters: Ohio's Energy Efficiency Success Stories. Request a publications list for other titles. Also available are safe energy science project ideas. 111

A national nonprofit coalition fighting for environmentally safe, affordable energy.

Science Screen Report

1000 Clint Moore Road Boca Raton, FL 33487-2806 1-(800) 232-2133

Fax: (407) 241-0707

An ongoing secondary school-level videotape program that focuses on the most recent developments in science, technology, and engineering. Produced since 1970 with the active participation of Science National Teachers Association, "Science Screen Report" (SSR) is designed to stimulate student interest in the challenges, rewards, and opportunities of pursuing scientific careers. More than 550 corporations currently sponsor "SSR" to 3,000 school districts nationwide. Tapes become the permanent property of the school system to allow repeated use year after year. 112

Science Service, Inc.

1719 N Street, N.W. Washington, DC 20036 (202) 785-2255

Science Service, Inc., administers two youth programs. The International Science and Engineering Fair (ISEF) is a competition for students in grades 9 through 12. Students participate in their regional and/or State ISEF-affiliated fair. Two individual student projects and one team project of up to three students are chosen to participate in the ISEF. Participants are eligible for scholarships, scientific field trips, summer research internships, and equipment. Westinghouse Science Talent Search (STS) awards \$205,000 in scholarships to 40 finalists. Top prize is a \$40,000 scholarship. Participants must be seniors in high school. Students submit a report of an independent research project in the sciences, official entry form, transcript, test scores, and teacher recom-Early December is the mendations. deadline for entry materials. For an official entry form and specific deadline, contact Science Service, Inc. 113

The only videotape program made available free of charge to schools through corporate sponsors.

Founded in 1921, a nonprofit scientific and educational organization that promotes scientific literacy, with special emphasis toward young people and, more recently, members of underrepresented groups.

SC Johnson Wax

Marketing Public Relations Department 1525 Howe Street Racine, WI 53403 (414) 631-2960 (414) 631-4709

Fax: (414) 631-3829

"Ozone: The Hole Story," a packet that includes a video and teaching materials developed for high school science classes, is available for a small fee. To order, call 1-(800) 243-6877. This packet presents the history and status of the use of chlorofluorocarbons, their possible effect on the thinning of the upper ozone level, and some practical solutions.

"Time and Time Again," a video and teaching unit developed in partnership with John Marshall High School, focuses on the role of recycling within the concept of solid waste management. The video was researched, written, and produced by John Marshall students to communicate new information about recycling to other high school students. "Time and Time Again" explains exactly which materials are fully recyclable—including empty steel aerosol cans, aluminum cans, glass and plastic bottles, and paper products. teaching unit provides up to a week's activities and information on initiating a recycling campaign at school. "Time and Time Again" is available for a fee. To order the packet, call MODERN Distribution Service at (800) 237-4599. 114

A family-owned, global manufacturer of products for the home and work-place with world head-quarters in Racine, WI.

Shell Oil Company

Corporate Communications P.O. Box 2463 Houston, TX 77252-2463 (713) 241-6161

Offers *Oil*, a booklet describing the origin of oil and its production, conversion to thousands of products, and distribution to customers around the world. Also available are *A Story of Achievement*, a brief history of the Shell Oil Company, and *Let's Collect Rocks and Shells*. Booklets are free of charge, but quantities are limited. **115**

Oil company department that responds to public inquiries pertaining to energy and environmental issues.

Simon and Schuster Children's Publishing Division

Educational Marketing 1230 Avenue of the Americas, 4th Floor New York, NY 10022 (212) 698-2806

Fax: (212) 698-4350

Offers a variety of energy, science, and environmental books from 11 imprints, including such titles as: *Nuclear Energy* by Pringle; *Understanding Radioactivity* by Milne; *Weather Forecasting* by Gibbons; *The Big Storm* by Hiscock; and *Before the Sun Dies* by Gallant. Provides free paperback and backlist catalogs. 116

A children's trade book publisher of both fiction and nonfiction titles for kindergarten through grade 12.

SME

P.O. Box 625002 Littleton, CO 80162-5002 (303) 973-9550 1-(800) SME-3132 Fax: (303) 973-3845 E-Mail: smeaime@aol.com

Offers both free and for-sale materials including classroom resource guides, posters, videos, and computer programs. Also can provide teachers with contacts among SME members in most geographic locations who are willing to help in teaching about minerals and mining. 117

A nonprofit educational organization providing educational resources related to energy, minerals, and mining. The Society for Mining, Metallurgy & Exploration, Inc., (SME) is the worldwide professional society for mining engi-

Smith College

Elm Street Northampton, MA 01063 (413) 584-2700

Fax: (413) 585-2075

Offers the project An Electricity Curriculum Based on Capacitor-Controlled Transient Lamp Lighting, which reveals the physics of current propulsion. This high school electricity curriculum students in engages hands-on experimentation. It includes three instructional aids (Introductory Workshop Guide, Classroom Resources Book, and Background Information File) which enhance the teacher's own understanding of electric circuits and make the study of electricity enjoyable for students. 118

A private academic institution.

Solar Energy Industries Association

122 C Street, N.W., 4th floor Washington, DC 20001 (202) 383-2600

Fax: (202) 383-2670

E-Mail: 71263.377@compuserve.com

Publishes Renewable Energy Fact Sheets, which includes information and classroom activities. Also produces Solar Science Activities, which includes dozens of classroom activities for grades 5 through 9, and Energy, Technology and Society, which is geared for high school students and provides information on alternative energy technologies. All are available for a fee. A free publications catalog is available upon request. CD-ROM educational modules are available through the Solar Energy Research and Education Foundation. 119

A nonprofit national trade association which represents the photovoltaic and solar thermal manufacturers and component suppliers.

The Solar Now Project

Academic Center 376 Hale Street Beverly, MA 01915 (508) 927-0585 x2140 Fax: (508) 927-9000 x3140

Provides programs for students, educators, and others interested in energy and the environment, using one of the Nation's largest operating photovoltaic fields and an extensive energy education laboratory for hands-on activities. Offers teacher training workshops; summer internships for college students; East Coast Junior Solar Sprint headquarters; student and teacher conferences; renewable energy feasibility studies; tours and field trips; a complete library of renewable energy educational materials; and promotional programs

fostering the use of renewable energy. Call for more information and a schedule

A national nonprofit organization providing low-cost education about all forms of renewable energy to teachers, students, and environmentalists.

Steel Recycling Institute 680 Andersen Drive Pittsburgh PA 15220-270

of upcoming events. 120

Pittsburgh, PA 15220-2700 1-(800) 876-7274

Provides materials for primary school and secondary school educators. Materials include Nature's for ME, a preschool workbook filled with recycling and nature-related interactive exercises; "YES I CAN!," a video and teacher's guide for grades 1 through 3; and Cycles for Science, a high school curriculum supplement for Biology, Chemistry, Earth/Life Science and Physics, and a community volunteer activities guide to support the program. Information and prices are available through order forms. Additional materials such as activity sheets (black line masters), a coloring poster, and a wall poster are available. If responding in writing, please indicate grade level(s) for which materials or order forms are needed. 121

An industry association dedicated to promoting and sustaining steel recycling across the country.

The Sugar Association, Inc.

1101 15th Street, N.W., #600 Washington, DC 20005 (202) 785-1122

Fax: (202) 785-5019

Offers Sugar Science: Photosynthesis to Food, a computer software package that explains the processes of photosynthesis and respiration as well as the role of plants in the food chain. This interactive software also provides experiments on sugar's functional role in food processing, including yeast interaction (baking), preservation (jams and preserves) and freezing (ice cream).

The program, available for a fee, was reviewed by the National Science Teachers Association and is available in the following formats: Apple IIe, Apple IIGS, IBM, Macintosh, IBM Novell, and AppleShare. Accompanying the software is a teacher's manual that includes a user's guide for the software and explanations of the experiments, including objectives, additional data and definitions, and extension activities for students. Recommended for upper elementary/middle school students. 122

Troll School and Library L.L.C.

100 Corporate Drive Mahwah, NJ 07430 (201) 529-4000

Fax: (201) 529-1862

Publishes educational materials for students from prekindergarten through grade 8. Includes a complete line of science materials relating to life, earth and physical sciences. Some of the energy-related titles are *Electricity*; Energy and Fuels; Wonders of Energy; World of Weather, and Discovering Electricity. Science Thematic Units are also available for children from prekindergarten through grade 6. Materials may be purchased from the publisher. Free catalogs are available upon request. 123

Established in 1943, the Sugar Association maintains an active role in informing the public about the role that sugar can play, in moderation, in a healthful diet. By creating public education programs with a variety of diet, health, nutrition, and fitness materials, the Association has worked to dispel misconceptions about sugar as well as provide opportunities for continued scientific research.

A publishing firm specializing in children's books.

Union of Concerned Scientists

Two Brattle Square Cambridge, MA 02238-9105 (617) 547-5552

Fax: (617) 864-9405 E-Mail: ucs@ucsusa.org Web: http://www.ucsusa.org

Focuses on responsible stewardship of the environment. Materials include books and briefing papers on renewable energy, transportation policy, nuclear power safety, sustainable agriculture, global environmental problems (climate ozone change, depletion, population), and arms control. Free brochures are available, such as Solar Power, Energy on the Road, Nuclear Power, Energy and Developing Renewable Countries, and World Scientist Warning to Humanity. Our newest book Renewables Are Ready: People Creating Renewable Energy Solutions describes how people across the country-from rural farm communities to large cities-have put renewable energy to work in their homes, schools, and businesses. Teachers can purchase a 100-page and businesses. multidisciplinary guide to teaching renewable energy in grades 7 through 12, as well as a collection of eight posters on renewables and a renewable energy slide show. 124

University of California-Los Angeles

Graduate School of Education 405 Hilgard Avenue Los Angeles, CA 90025 (213) 825-4321

This project involves secondary school master science teachers from the Los Angeles area in the creation of two cross-curricular, multilevel modules that focus on environmental science. Collaboration involves UCLA, area community colleges, and middle school and high school faculty. National Science Foundation support for this project began in 1993; some materials are still under development. 125

An independent, nonprofit organization of scientists and other citizens concerned about the impacts of advanced technology on society.

A State-run, academic institution.

University of Florida

Center for Economic Education 186 Norman Hall Gainesville, FL 32611-2053 (904) 392-0971

Fax: (904) 392-7159

E-Mail: gcarr@nervm.nerdc.ufl.edu

Provides curriculum guides for teachers. Available for a fee is the *Energy and Economics* (high school) and *Resources and Energy* (grades 2 and 3); *Resources and Energy* (middle school) curriculum guides are designed to give students a greater understanding of the connections between energy and economics. Bulk orders of 100 or more copies can be purchased at a discount. **126**

University of Illinois at Urbana-Champaign

School of Architecture– Building Research Council (BRC) 1 East St. Mary's Road Champaign, IL 61820 1-(800) 336-0616

Fax: (217) 244-2204

Publishes 8-, 12-, and 16-page booklets on how to make homes comfortable, healthy, and energy efficient, which are appropriate for home owners and seniors in high school. BRC offers the following publications at a nominal fee: Home Inspection, which examines each home system-plumbing, electrical, etc., and provides a checklist for buying a home; Lighting, which focuses on task, security, and general lighting; Energy Management, which outlines practical management plans for summer and winter; Insulating, which focuses on how to know what type and how much insulation is needed; Heating, which is about the various kinds of heating systems and how to select a system; Selecting Windows, which explains window options and energy savings by selecting wisely; and Moisture Condensation, which discusses how to keep moisture from making a home chilly and prone to water damage.

A university center responsible for providing educational materials to teachers.

A nonprofit information clearinghouse and research center.

Energy Management is available in Spanish. A free publications catalog is available upon request. A complete set of 27 booklets is available for instructors and home owners. Bulk rates are available. 127

University of Maryland-College Park

Physics and Astronomy Department College Park, MD 20742 (301) 454-3311

Teacher enhancement opportunities were designed for middle school teachers in acoustics, optics, electricity, and Newton's laws. Manuals provide detailed discussion of a series of experiments which can be performed with selected apparatuses. National Science Foundation support for this project began in 1991; some materials are still under development. 128

A State-run, academic institution.

U.S. Consumer Information Center Pueblo, CO 81009

Offers the free, quarterly *Consumer Information Catalog* containing listings of over 200 free and low cost Federal consumer publications on topics such as health, energy conservation, Federal benefits, money management, housing, child care, employment, small business, education, food and nutrition, and more. A free catalog is available by writing to: Free Catalog, Pueblo, CO 81009. Bulk copies are available to schools and nonprofit groups able to distribute 25 or more copies. **129**

Helps Federal agencies develop, promote, and distribute consumer information to the public through the Consumer Information Catalog.

U.S. Department of Agriculture

Forest Service Rocky Mountain Forest and Range Experiment Station 240 W. Prospect Street Fort Collins, CO 80526 (303) 498-1500 (303) 498-1719 (publications distribution) Fax: (303) 498-1660

Provides copies of technical publications on ecosystem component interactions, resource management and protection, resource interactions, and people's values and interactions with ecological systems. Available publications include: Distribution of Abandoned and Inactive Mines on Forest Service Lands and Conceptual Framework for Minerals Analysis in the RPA Assessment. 130

U.S. Department of Education

ERIC Clearinghouse for Science, Mathematics, and Environmental Education 1929 Kenny Road Columbus, OH 43210-1080 (614) 292-6717 1-(800) 276-0462 Fax: (614) 292-0263

Fax: (614) 292-0263 E-Mail: ericse@osu.edu

ERIC/CSMEE, sponsored by the Office Educational Research and Improvement, U.S. Department of Education, has as its primary function the acquisition and dissemination of printed materials related to science, environmental mathematics, and education. The information is indexed and abstracted for inclusion in two monthly publications, Resources in Education (RIE) and Current Index to Journals in Education (CIJE). RIE provides abstracts for a variety of educational materials; CIJE announces journal literature. In addition to acquiring and processing documents and journal articles, the ERIC/CSMEE staff produces digests and other documents. Digests are short publications (one page, front and

Forest Service Research is intended to serve society by developing and communicating the scientific information and technology needed to protect, manage, and use the natural resources of forests and rangelands.

One of 16 ERIC clearing-houses, the ERIC Clearing-house for Science, Mathematics, and Environmental Education (ERIC/CSMEE) develops, maintains, and makes accessible to the public the world's largest education-related database which includes over 850 items relating to energy education.

back) on a single topic. Other publications include yearbooks, source books, reviews of research, instructional activity collections on broad topics, and collections of papers presented at national meetings. The Clearinghouse offers a variety of user services and maintains a full ERIC microfiche collection, *RIE* and *CIJE* reference collection, and a library collection of materials related to the scope areas. The Clearinghouse also provides a variety of electronic services on the Internet. A Gopher server can be accessed at: gopher.ericse.ohio-state-edu and a World Wide Web server can be accessed at: http://www.ericse.ohio-state.edu. 131

U.S. Department of Education
Office of Educational Research and
Improvement (OERI)
555 New Jersey Avenue, N.W.
Washington, DC 20208-5461
(202) 219-1556
1-(800) 424-1616
Fax: (202) 219-1696
E-Mail: library@inet.ed.gov

Publishes a series of Helping Your Child books for parents. Included is Helping Your Child Learn Geography, which helps children look at the world in which they live, the effects of the environment on the way in which towns have developed, and the effects humans have had on the environment that have made areas Other series topics include: Science, Math, History, Reading, Using the Library, Get Ready for School, Succeed in School, Responsible Behavior, and Being Healthy and Fit. All are available for a nominal fee. To obtain ordering instructions for all of the Helping Your Child books, write to Helping Your Child List, OERI Education Information Branch, at the above address. Write to the above address to obtain the OERI Bulletin, a free quarterly listing of publications, programs, statistics, and grants. 132

Provides information about education research, statistics, publications, and data tapes.

Argonne National Laboratory Division of Educational Programs 9700 South Cass Avenue Argonne, IL 60439-4845 (708) 252-4114

Fax: (708) 252-3193

Argonne provides teacher research and training opportunities for science teachers for elementary school upper grades and high school. One program, the TRAC program, offers teachers an 8-week research experience at the Laboratory. A summer teacher enhancement program provides teachers experience with a scientific apparatus that is later delivered to the school via a van (Chicago area only). Teachers guides and videotapes for the PBS "New Explorers" series have been created by teams of scientists and teachers from DOE laboratories and museums around the Nation. The guides are designed to encourage students to consider science careers and to provide good science activities. Teachers in Chicago are eligible for workshops and class field trips. Teachers elsewhere can order videos and guides from PMI Films Inc. 1-800-343-4312, x359.

Also available on the Internet is a computer bulletin board for science teachers with an "Ask A Scientist" feature where scientists provide answers to various questions. The answers can be retrieved after a few days. A teacher exchange of ideas and some curricular materials are also part of the bulletin board. The bulletin board is free to teachers and can be reached via Telnet to newton.dep.anl.gov or via Mosaic through the Argonne Division of the Educational Programs Home Page. 133

A DOE-funded multi-purpose national laboratory providing programs to promote science careers and improve science education.

Biofuels Feedstock Development

Program

Oak Ridge National Laboratory

P.O. Box 2008

Oak Ridge, TN 37831-6422

(423) 576-5132 Fax: (423) 576-8143 E-Mail: are@ornl.gov

Web: http://www.esd.ornl.gov/ BFDP/BFDPMOSAIC/binmenu.html

Provides free information on biomass, specifically fast growing trees and grasses, for use as raw materials for conversion to transportation fuels and electricity. The information is in the form fact sheets, reports, bibliographies. A newsletter, Energy Crops Forum, is published periodically. In addition, a World Wide Web/Internet service, the Biofuels Information Network, contains full text of many of the reports, newsletters, and fact sheets and provides pointers to other places with related materials. 134

U.S. Department of Energy

Bonneville Power Administration Community Education Program-CKPP P.O. Box 3621

Portland, OR 97208-3621 (503) 230-3709

Fax: (503) 230-4019

E-Mail: jhmcnamara@bpa.gov

Participates in a variety of education programs in the BPA four-State service area. Various programs, which are available for teachers and students from primary school through high school, include math and science enhancements, hands-on learning, worksite mentoring apprenticeships, competitions, environmental education, tutoring, and others. Educational materials loaned or given free of charge to teachers include curricula, activity, and storybooks; posters; videotapes; and exhibits. Topics covered are primarily electricity, energy conservation, and fish and wildlife. 135

A DOE-funded program that supports research, analysis, and communication activities to foster the development and adoption of alternative fuels.

Bonneville Power Administration (BPA) is both an electric utility and a Federal within DOE. agency Established in 1937, BPA markets electric power from Federal dams and other energy resources in the Pacific Northwest. BPA employs approximately 3,300 persons in Idaho, Montana, Oregon, and Washington. The majority work in the Portland-Vancouver metropolitan area headquarters and control center. BPA works with several business, school, and government agency partnerships. Many employees volunteer each year for various programs.

Carbon Dioxide Information Analysis Center (CDIAC) MS-6335, Building 1000 Oak Ridge National Laboratory P.O. Box 2008 Oak Ridge, TN 37831-6335 (423) 574-0390

Fax: (423) 574-2232 E-Mail: cdiac@ornl.gov

Web: http://cdiac.esd.ornl.gov/cdiac

Provides reports and fact sheets, newsletter, **CDIAC** including a Communications, which describes CDIAC and DOE initiatives in global change research. Trends: A Compendium of Data on Global Change, a quick source of frequently requested data, is also available. Global Change Acronyms and Abbreviations is a new publication providing a comprehensive listing of acronyms and abbreviations used in global change research, policy, and education settings. Glossary: Carbon Dioxide and Climate contains a glossary of CO2-related terms and tables of information related to CO₂ and climate. These materials are suitable for middle school and high school students. All are free. Four-page DOE Research Summary briefs are available, as well as a PC model on global energy-CO₂ emissions. The IEA/ORAU Long-Term Global Energy Economics Model with CO₂ and CH Emissions is a PC-version of a computer model package, suitable for high school and college students, with a number of variables to interactively produce CO₂ and CH₄ emission scenarios for 1975 through 2100. 136

A DOE-funded program that provides information support to the international research, policy, and education communities for evaluation of issues related to climate change.

Clean Cities Hotline P.O. Box 12316 Arlington, VA 22209 1-(800) CCITIES or (224-8437)

Fax: (703) 528-1953

E-Mail: hotline@afdc.nrel.gov

Provides implementation and technical information on the DOE's Clean Cities program. Works to help communities convert to alternative-fuel vehicles through coordination planning. Also provides general information on the Clean Cities Program, lists of involved cities and participants, as well as technical and regulatory information of use to Clean Cities, such as funding for alternative-fuel vehicles and information on the Clean Air Act and Energy Policy Act. Remains in direct contact with the Clean Cities Program Directors, DOE regional offices, and involved Clean Cities. The Hotline is available between 10 a.m. and 6 p.m., eastern standard time. The toll-free 800 number is available to callers in the United States only. 137

U.S. Department of Energy

Energy Efficiency and Renewable Energy Clearinghouse (EREC) P.O. Box 3048 Merrifield, VA 22116 1-(800) DOE-EREC or (363-3732) 1-(800) 273-2955 (bulletin board service) Fax: (703) 893-0400

E-Mail: doe.erec@nciinc.com

Provides information on renewable energy and energy-efficient technologies to consumers, teachers, and students. Maintains lists of organizations that will supply educators with energy-related booklets, audio-visual materials, software, bibliographies, project contacts, kits, and equipment. Publications suitable for primary school and secondary school students are available. Teachers and librarians may request activity lists, bibliographies, and background materials. Publications are free. 138

The Clean Cities Hotline, sponsored by DOE, provides information on the Clean Cities Program-a voluntary and cooperative effort to promote alternative-fuel vehicles.

A DOE-funded energy information service responding to public inquiries on the use of renewable energy and energy conservation.

National Alternative Fuels Hotline P.O. Box 12316 Arlington, VA 22209 1-(800) 423-1DOE or (423-1363) Fax: (703) 528-1953

E-Mail: hotline@afdc.nrel.gov

Provides information on vehicle conversion technology, refueling station locations, and Federal alternative fuel programs. Free publications and data are available on alternative fuel technology, legislative and regulatory changes, and other issues concerning the alternative transportation fuel industry. In addition, NAFH works directly with the National Renewable Energy Laboratory's Alternative Fuel Data Center (AFDC). Data on vehicle emissions, performance, fuel economy, maintenance and more are available through the AFDC. For more on alternative fuels and the AFDC, call NAFH's toll free number. 139

The National Alternative Fuels Hotline (NAFH) is sponsored by DOE to assist the general public and interested organizations in improving their understanding about alternative transportation fuels.

U.S. Department of Energy

National Energy Information Center (NEIC), EI-231 **Energy Information Administration** 1000 Independence Avenue, S.W., Room 1F-048 Washington, DC 20585 (202) 586-8800

Fax: (202) 586-0727

E-Mail: infoctr@eia.doe.gov Web: http://www.eia.doe.gov

Available free of charge is an "Energy INFOcard," a quick-reference card providing the most recent annual domestic and international energy data; Energy Education Resources: Kindergarten through 12th Grade, and Energy Information Sheets, a booklet comprising one-page capsules on such energy topics as petroleum, natural gas, coal, and renewable energy. All three products are also available on EIA's World Wide Web site. 140

NEIC is the information dissemination service for **DOE's Energy Information** Administration, which is responsible for the collection, analysis, and distribution of energy statistics.

National Low Level Waste Management Program, EM-32/TREV Office of Environmental Management 19901 Germantown Road Germantown, MD 20874-1290 (301) 903-7177

Fax: (301) 903-7451

Provides general information on low level radioactive waste management through short fact sheets, a booklet with answers to frequently asked questions on low level radioactive waste disposal, and brochures on what constitutes commercial low level waste; concepts for disposal of low level waste; and low level radioactive waste basics. 141

A Federal program providing both general and special technical assistance to States and regions to establish an effective nationwide system for the disposal of commercial low level radioactive waste.

U.S. Department of Energy

Office of Civilian Radioactive Waste Management **Human Resources and Administration** Administration Division, RW-15 1000 Independence Avenue, S.W. Room GF-277 Washington, DC 20585 (202) 488-6720 1-(800) 225-NWPA

Fax: (202) 488-6721

Web: http://www.rw.doe.gov

Furnishes a recently revised curriculum, Science, Society, and America's Nuclear Waste, to educators free of charge. The four-unit curriculum, designed for use in grades 8 through 12, contains materials for both students and teachers. Student materials include readings, review exercises, and activities. For teachers, supplemental teaching aids include videotapes, computer software, and viewgraphs. Also available is general information on the Civilian Radioactive Waste Management Program, including fact sheets, brochures, videotapes, and a quarterly newsletter. All publications and videotapes are free upon request.

A Federal program established to manage and dispose of the Nation's spent nuclear fuel and high level radioactive waste.

Office of Fossil Energy Communications, FE-5 1000 Independence Avenue, S.W., Room 4G-085 Washington, DC 20585 (202) 586-6503

Offers *Dinosaurs and Power Plants*, a three-document teaching set that relates the story of mining and drilling for coal, gas, and oil; environmental concerns; and modes of transportation. Included are two teaching guides and a booklet for students. Another publication, *Clean Coal Technology*, and a poster, The Clean Coal Path, are also available. All are free. **143**

A Federal Office providing technical and public education-related information on coal, oil, and natural gas technologies, and the Nation's petroleum reserves.

U.S. Department of Energy

Office of Nuclear Energy, Science and Technology Office of Planning and Analysis, NE-20 Washington, DC 20585 (301) 903-6590 Fax: (301) 903-5993

Offers energy educational materials, including historical and current factual data on nuclear energy. Pamphlets discuss such issues as the nuclear fuel cycle and civilian uses of nuclear energy. Available publications include: The History of Nuclear Energy, Atoms to Electricity, The Harnessed Atom, and several others. Also provides a booklet listing nuclear power plants, with operating data. All publications are free.

Public Information Office for the Office of Nuclear Energy, Science and Technology. Responds to public inquiries about DOE's civilian nuclear energy program.

Office of Scientific and Technical Information P.O. Box 62 Oak Ridge, TN 37831 (423) 576-8401

Fax: (423) 576-2865

E-Mail: usertalk@adonis.osti.gov

Provides pamphlets on various energy-related subjects as available and as directed by the program offices. Many publications are free. Also provides electronic access to departmental information through the DOE Home Page at the World Wide Web Server URL http://www.doe.gov on the Internet. This server can also be reached by dial-up through a modem at (423) 241-3901. 145

The Office of Scientific and Technical Information (OSTI) is responsible for the management of DOE's scientific and technical information. OSTI works with DOE's program offices in making energy-related information available to the public.

U.S. Department of Energy

Pittsburgh Energy Technology Center Education Outreach P.O. Box 10940 Mailstop 141-L Pittsburgh, PA 15236 (412) 892-5034

Fax: (412) 892-4158

Provides free materials for grades 3 to 5 that include extensive activities and teacher lesson plans. The materials were developed as a joint project between Pittsburgh Energy Technology Center scientists and teachers in the Elementary Teacher Research Internship Program. The materials include a booklet entitled *Coal: Energy for Home and Community*, laboratory activities, support information, discussion ideas, and overhead masters for viewgraphs on coal as well as solar and wind energy sources. **146**

A Federal fossil energy research facility.

Sandia National Laboratories (SNL) **Educational Outreach** Organization #0035 P.O. Box 5800 Albuquerque, NM 87185 (505) 271-7828

Fax: (505) 271-4125

Provides educational products and class material for kindergarten through university-level classes. Relevant titles/ services for students from kindergarten through grade 12 include Capturing the Sun's Energy classroom experiments, science fair project ideas, "Capturing Sunlight for Everyone's Use" (videotape), and the Sandia Teachers Resource **Center. 147**

A DOE-funded national laboratory educational service to promote awareness of energy sources and uses.

U.S. Department of Energy Southwestern Power Administration P.O. Box 1619 Tulsa, OK 74101

(918) 581-7474

Fax: (918) 581-7530

Provides tutoring and special project assistance to a local magnet middle school. Also provides a limited number of educational/informational publications, designed for elementary schoolage children, on safe play around electrical sources. **148** A DOE power marketing administration serving the six-State area of Arkansas, Kansas, Louisiana, Missouri, Oklahoma, Texas.

Superconductivity Program for Electric Systems Education Outreach P.O. Box 3048 Merrifield, VA 22116 1-(800) 363-3732

Fax: (703) 893-0400

Provides educational materials on superconductivity, including curriculum guides and instructional videos, to middle school and high school science and energy educators. The materials were developed in a partnership between Energy Efficiency and Renewable Energy and the Office of Scientific Education and Technical Information. 149

A DOE program to provide the basic science and technology for U.S. industry to develop electric power applications of high temperature superconductivity.

U.S. Department of Energy

Western Area Power Administration P.O. Box 3402 Golden, CO 80401 (303) 275-1739

Fax: (303) 275-1717 E-Mail: buntin@wapa.gov

Provides contact points with WAPA's customers regarding on-going energy educational efforts on conservation and renewable energy for students from kindergarten through grade 12. For information, call the Energy Services Manager in any of the following cities: Billings, Montana, (406) 247-7392; Loveland, Colorado, (303) 490-7227; Phoenix, Arizona, (602) 352-2655; Sacramento, California, (916) 353-4435; and Salt Lake City, Utah, (801) 524-5495, or the Division of Energy Services in Golden, Colorado. 150

A DOE power marketing administration encompassing all or parts of 15 western States.

U.S. Department of the Interior

Bureau of Land Management (BLM) 1849 C Street, N.W. Washington, DC 20240 (202) 208-3435 (Public Affairs) (801)539-4244 (Minerals Outreach Coordinator)

Fax: (202) 452-0399

Provides materials on energy and mineral resources found on Governmentowned land. BLM has an active program for presentation of energy and minerals sciences, especially as they relate to the public lands. Exhibits may be arranged for professional functions or fairs. Presentations at local schools or youth gatherings can be arranged through any BLM office or through the Minerals Outreach Coordinator in Salt Lake City, Demonstration areas showing preservation and reclamation techniques may be used as field trips for students. several videos Also offers ecosystems preservation of and Pamphlets, brochures, reclamation. maps, fact sheets, environmental studies, and statistical summaries are available free upon request or for a minimal charge. BLM is also active in the preservation of old mining towns, and tours of these "ghost towns" may be arranged. 151

U.S. Department of the Interior

Minerals Management Service (MMS) 1849 C Street, N.W. Washington, DC 20240 (703) 787-1080

Fax: (703) 787-1010 or (703) 787-1186

Provides informational materials on gas, oil, mineral, and environmental resources in the ocean. Available materials include color photo posters, brochures, fact sheets, statistical summaries, technical reports, newsletters, environmental studies, and professional papers. Most material is free upon request, but quantities may be limited. MMS has an

regulatory agency for responsible the management of a wide variety of resources on public lands. resources include wildlife habitat, recreational values, cultural and historic sites, scenic, and wilderness areas as well as more than 60 types of minerals produced from public lands.

MMS is a regulatory agency responsible for balancing energy and mineral resource development with protection of environmental resources on the U.S. Outer Continental Shelf.

extensive color slide collection, and arrangements may be made for loans or duplications at cost. Most information is suitable for upper grade levels.

Offices in Washington, DC; New Orleans, Louisiana; Camarillo, California; and Anchorage, Alaska, can arrange for presentations at local schools on the work conducted at MMS and on geology, environmental science. engineering, resource management, international activities, and related Several video programs are available on loan, including a new interactive video. MMS professionals have worked with schools to develop their energy and environmental resource curricula. Call or write for further information and referral or to ask for a catalog of publications. 152

U.S. Environmental Protection Agency (EPA)

Public Information Center, 3404 401 M Street, S.W. Washington, DC 20460 (202) 260-2080 Fax: (202) 260-6257

E-Mail: public-access@epamail.epa.gov

Provides free material on drinking water, air quality, pesticides, radon, indoor air, Superfund, wetlands, and other environmental topics. 153

Public Information Center for EPA. Responds to public inquiries about environmental issues and EPA programs. Also serves as the main referral point for the Agency.

Videodiscovery, Inc.

1700 Westlake Ävenue N. , Suite 600 Seattle, WA 98109-3012 1-(800) 548-3472 (206) 285-5400

Fax: (206) 285-9245

Web: http://www.videodiscovery.com

Developer and publisher of multimedia programs for kindergarten through college-level science education. Specifically, the company publishes interactive science videodiscs, CD-ROM's, and computer software, such as STS Science Forums; Understanding Earth; Chemistry at Work; Science Sleuths; and Physics at Work. The company is dedicated to improving science instruction through the advancement of educational technologies. A free catalog of products is available upon request. 154

An educational software publisher.

Water Environment Federation

601 Wythe Street Alexandria, VA 22314-1994 (703) 684-2400 1-(800) 666-0206

Fax: (703) 684-2492 E-Mail: lloken@WEF.ORG

Publishes The Water Sourcebook, with over 60 hands-on classroom activities; the Water Environment Curriculum Program, including units on wastewater (also available in Spanish), surface water, groundwater (also available in Spanish) and water conservation. Many of the water quality experts act as classroom resources through the WEF Adopt-A-School program. Local members choose to "adopt" schools by providing guest speakers, presentations, and tours of water treatment plants, plus videos and other special resources. For more information on these and all of WEF's materials education brochures, call the toll free number. 155

A not-for-profit technical and educational group of water quality experts with more than 41,000 members located in all 50 States and around the world. **Waverly Light and Power**

1002 Adams Parkway P.O. Box 329 Waverly, IA 50677 (319) 352-6251

Fax: (319) 352-6254

Provides educational services free to educators within its service territory. Services include generating plant tours, classroom presentations, and purchased reference materials for kindergarten through grade 12. 156

A municipal utility serving electric needs of the community.

Westinghouse Electric Corporation

Energy Systems Communications Department P.O. Box 355, Bay 216 E Pittsburgh, PA 15230-0355 (412) 374-6803

Provides energy-related materials to all who are interested, especially to teachers and to students who will make our energy decisions in the future. A few copies of the booklets are available free However, for larger of charge. quantities, there is a fee. Materials available are: a simulated uranium fuel pellet; Electricity from Nuclear Energy; Nuclear Energy Glossary; Questions Kids Ask About Energy, Radiation Booklet; and Component Illustrations (color prints). For more information, you may contact the Communications Department of the Energy Systems Business Unit. 157

A company dedicated to providing high quality products, services, technology, systems, and management in nuclear energy, as well as advanced energy and process control systems.

SUBJECT INDEX

The subject index is arranged alphabetically by specific energy terminology. References are to the organization number, the bold number that follows each entry.

Coal

American Chemical Society, 5

American Coal Foundation, 6

Baltimore Gas and Electric Company (BGE), 20

BP America, 22

Center for Energy and Economic Development (CEED), 26

Channing L. Bete Publishing Co., Inc., 28

City Public Service (CPS), 31

Dayton Power & Light Company, 38

Denver Earth Science Project, 39

Educational Development Specialists, 46

Energy Source Education Council, 47

Enterprise for Education, 48

Houston Lighting & Power Company, 62

Illinois Department of Commerce and Community Affairs, 63

Institute for Chemical Education, The (ICE), 66

Jackson Electric Authority (JEA), 68

National Energy Education Development Project (NEED), 84

National Energy Foundation (NEF), 85

National Mining Association, 87

Northeast Utilities, 98

Northern States Power Company, 100

OG&E Electric Services, 103

Omaha Public Power District, 104

Pennsylvania Power & Light Co., 106

SME, 117

University of Florida, 126

U.S. Department of Education,

ERIC Clearinghouse for Science, Mathematics, and Environmental Education, 131

U.S. Department of Energy

National Energy Information Center (NEIC), 140

Office of Fossil Energy, 143

Office of Scientific and Technical Information, 145

Pittsburgh Energy Technology Center, 146 U.S. Department of the Interior Bureau of Land Management (BLM), 151

Electricity

American Association for Vocational Instructional Materials, 4

American Chemical Society, 5

American Coal Foundation, 6

American Nuclear Society, 9

American Public Power Association. 12

American Wind Energy Association, 15

Arizona Department of Commerce, 17

Bakken Library and Museum, The, 19

Baltimore Gas and Electric Company (BGE), 20

Bullfrog Films, 23

California Energy Commission, 24

Center for Renewable Energy and Sustainable Technology, 27

Channing L. Bete Publishing Co., Inc., 28

Charles Edison Fund. 29

City Public Service (CPS), 31

City Utilities of Springfield, 32

Consolidated Edison Company of New York, Inc., 35

Culver Company, 37

Dayton Power & Light Company, 38

Disney Educational Productions. 40

Edison Electric Institute (EEI), 44

Edison Plaza Museum, 45

Educational Development Specialists, 46

Energy Source Education Council, 47

Enterprise for Education, 48

Environmental Hazards Management Institute (EHMI), 50

EV Media, 51

Florida Power & Light Company, 55

Frey Scientific, 58

Hawaiian Electric Company, Inc., 61

Houston Lighting & Power Company, 62

Jackson Electric Authority (JEA), 68

Jersey Central Power & Light Company, 69

Kissimmee Utility Authority (KUA), 73

Learning Works, The, 74

National Energy Education Development Project (NEED), 84

National Energy Foundation (NEF), 85

National Geographic Society, 86

National Rural Electric Cooperative Association, 89

National Science Resources Center (NSRC), 91

New York Power Authority, 95

NoodleHead Network, The, 97

Northeast Utilities, 98

Northern Indiana Public Service Company, 99

Northern States Power Company, 100

OG&E Electric Services, 103

Omaha Public Power District, 104

Pennsylvania Power & Light Co., 106

Radon Group, Ltd., The, 109

Smith College, 118

Troll School & Library L.L.C., 123

University of Florida, 126

University of Maryland-College Park, 128

U.S. Department of Education

ERIC Clearinghouse for Science, Mathematics, and Environmental Education, 131

U.S. Department of Energy

Biofuels Feedstock Development Program, 134

Bonneville Power Administration, 135

National Alternative Fuels Hotline, 139

National Energy Information Center (NEIC), 140

Office of Civilian Radioactive Waste Management, 142

Pittsburgh Energy Technology Center, 146

Southwestern Power Administration, 148

Superconductivity Program for Electric Systems, 149

Western Area Power Administration, 150

Videodiscovery, Inc., 154

Waverly Light and Power, 156

Westinghouse Electric Corporation, 157

Energy efficiency/energy conservation

Alliance to Save Energy, The, 2

American Chemical Society, 5

American Forest Foundation, 7

American Nuclear Society, 9

American Plastics Council, 11

American Public Power Association, 12

American Solar Energy Society, 13

Arizona Department of Commerce, 17

Baltimore Gas and Electric Company (BGE), 20

Biofuels America, 21

BP America, 22

Bullfrog Films, 23

California Energy Commission, 24

Center for Renewable Energy and Sustainable Technology, 27

Channing L. Bete Publishing Co., Inc., 28

Charles Edison Fund, 29

City Public Service (CPS), 31

Cobblestone Publishing, Inc., 33

Consolidated Edison Company of New York, Inc., 35

Culver Company, 37

Dayton Power & Light Company, 38

Denver Earth Science Project, 39

Disney Educational Productions, 40

Edison Electric Institute (EEI), 44

Educational Development

Specialists, 46

Energy Source Education Council, 47

Enterprise for Education, 48

Environmental Hazards Management Institute (EHMI), 50

EV Media, 51

Florida Energy Office, 54

Florida Power & Light Company, 55

Florida Solar Energy Center (FSEC), 56

Frey Scientific, 58

Houston Lighting & Power Company, 62

Indiana Department of Education, 65

Integrated Waste Services Association, 67

Jacksonville Electric Authority (JEA), 68

Jersey Central Power & Light Company, 69

Johnson Controls, Inc., 70

Kissimmee Utility Authority (KUA), 73

Midwest Renewable Energy Association, 75

Minnesota Department of Public Service, 77

National Arbor Day Foundation, 79

National Center for Appropriate Technology, 81

National Energy Education Development Project (NEED), 84

National Energy Foundation (NEF), 85

National Geographic Society, 86

National Rural Electric Cooperative Association, 89 National Science Teachers Association, 92

National Wildlife Federation, 93

New York Power Authority, 95

NoodleHead Network, The, 97

Northeast Utilities, 98

Northern Indiana Public Service Company, 99

Northern States Power Company, 100

OG&E Electric Services, 103

Omaha Public Power District, 104

Pacific Gas & Electric Company, 105

Pennsylvania Power & Light Co., 106

Radon Group, Ltd., The, 109

Renew America, 110

Safe Energy Communication Council, 111

Solar Energy Industries Association, 119

Solar Now Project, The, 120

Troll School & Library L.L.C., 123

University of Florida, 126

University of Illinois at Urbana Champaign, 127

U.S. Consumer Information Center, 129

U.S. Department of Education

ERIC Clearinghouse for Science, Mathematics, and Environmental Education, 131

U.S. Department of Energy

Biofuels Feedstock Development Program, 134 Bonneville Power Administration, 135

Energy Efficiency and Renewable Energy Clearinghouse (EREC), 138

National Energy Information Center (NEIC), 140

Office of Scientific and Technical Information, 145

Pittsburgh Energy Technology Center, 146

Superconductivity Program for Electric Systems, 149

Western Area Power Administration, 150

U.S. Environmental Protection Agency (EPA), 153

Videodiscovery, Inc., 154

Waverly Light and Power, 156

Environment

Air & Waste Management Association (A&WMA), 1

Aluminum Association, Inc., The, 3

American Chemical Society, 5

American Coal Foundation, 6

American Forest Foundation, 7

American Geological Institute, 8

American Nuclear Society, 9

American Petroleum Institute, 10

American Plastics Council, 11

American Wind Energy Association, 15

Arizona Department of Commerce, 17

Aseptic Packaging Council, The, 18

Baltimore Gas and Electric Company (BGE), 20

Biofuels America, 21

BP America, 22

Bullfrog Films, 23

California Energy Commission, 24

California Foundation for Agriculture in the Classroom, 25

Center for Renewable Energy and Sustainable Technology, 27

Channing L. Bete Publishing Co., Inc., 28

Charles Edison Fund, 29

City Public Service (CPS), 31

Cobblestone Publishing, Inc., 33

Colorado School of Mines, 34

Consolidated Edison Company of New York, Inc., 35

Consumer Aerosol Products Council, The, 36

Culver Company, 37

Dayton Power & Light Company, 38

Denver Earth Science Project, 39

Disney Educational Productions, 40

DuPont, 41

Earth Foundation, 42

Edison Electric Institute (EEI), 44

Educational Development Specialists, 46

Enterprise for Education, 48

Environmental Education Associates, Inc. (EEA), 49

Environmental Hazards

Management Institute (EHMI), 50

Exxon Company, U.S.A., 52

Flexible Packaging Educational Foundation, 53

Florida Energy Office, 54

Florida Power & Light Company, 55

Foodservice & Packaging Institute, Inc., 57

Frey Scientific, 58

Global Issues Resource Center, 60

Hawaiian Electric Company, Inc., 61

Houston Lighting & Power Company, 62

Indiana Department of Education, 65

Institute for Chemical Education, The (ICE), 66

Integrated Waste Services Association, 67

Jacksonville Electric Authority (JEA), 68

Keep America Beautiful, Inc., 71

Kids For A Clean Environment, 72

Kissimmee Utility Authority (KUA), 73

Learning Works, The, 74

Mineral Information Institute (MII), 76

National Arbor Day Foundation, 79

National Association of Conservation Districts (NACD), 80

National Center for Appropriate Technology, 81

National Corn Growers Association, 82

National Cotton Council of America, 83

National Energy Education Development Project (NEED), 84

National Energy Foundation (NEF), 85

National Geographic Society, 86

National Mining Association, 87

National Rural Electric Cooperative Association, 89

National Science Resources Center (NSRC), 91

National Science Teachers Association, 92

National Wildlife Federation, 93

Northeast Utilities, 98

Northern Indiana Public Service Company, 99

Northern States Power Company, 100

Nuclear Energy Institute, 101

OG&E Electric Services, 103

Polystyrene Packaging Council, 107

Renew America, 110

Safe Energy Communication Council, 111

Science Screen Report, 112

Simon and Schuster Children's Publishing Division, 116

Solar Now Project, The, 120

Steel Recycling Institute, 121

Troll School & Library L.L.C., 123

Union of Concerned Scientists, 124

University of California–Los Angeles, 125

University of Florida, 126

U.S. Consumer Information Center, 129 U.S. Department of Agriculture, 130

U.S. Department of Education

ERIC Clearinghouse for Science, Mathematics, and Environmental Education, 131

U.S. Department of Energy

Biofuels Feedstock Development Program, 134

Bonneville Power Administration, 135

Carbon Dioxide Information Analysis Center (CDIAC), 136

National Alternative Fuels Hotline, 139

Office of Civilian Radioactive Waste Management, 142

Office of Scientific and Technical Information, 145

Pittsburgh Energy Technology Center, 146

U.S. Department of the Interior

Bureau of Land Management (BLM), 151

Minerals Management Service (MMS), 152

U.S. Environmental Protection Agency (EPA), 153

Videodiscovery, Inc., 154

Water Environment Federation, 155

Geosciences/earth sciences

American Chemical Society, 5

American Geological Institute, 8

BP America, 22

Bullfrog Films, 23

California Foundation for Agriculture in the Classroom, 25

Channing L. Bete Publishing Co., Inc., 28

Chlorine Chemistry Council, The, 30

City Public Service (CPS), 31

Colorado School of Mines, 34

Consumer Aerosol Products Council, The, 36

Denver Earth Science Project, 39

Disney Educational Productions, 40

Educational Development Specialists, 46

Enterprise for Education, 48

Frey Scientific, 58

Institute for Chemical Education, The (ICE), 66

Learning Works, The, 74

Mineral Information Institute (MII), 76

National Aeronautics and Space Administration (NASA), 78

National Association of Conservation Districts (NACD), 80

National Energy Education Development Project (NEED), 84

National Energy Foundation (NEF), 85

National Geographic Society, 86

National Science Foundation, 90

National Science Resources Center (NSRC), 91

National Science Teachers Association, 92

National Wildlife Federation, 93

New York State Geological Survey, 96 Northern States Power Company, 100

OG&E Electric Services, 103

Pennsylvania Power & Light Co., 106

Science Screen Report, 112

Science Service, Inc., 113

Simon and Schuster Children's Publishing Division, 116

SME, 117

Solar Now Project, The, 120

Sugar Association, Inc., The, 122

Troll School & Library L.L.C., 123

University of California–Los Angeles, 125

U.S. Department of Education

ERIC Clearinghouse for Science, Mathematics, and Environmental Education, 131

Office of Educational Research and Improvement (OERI), 132

U.S. Department of Energy

Carbon Dioxide Information Analysis Center (CDIAC), 136

Office of Scientific and Technical Information, 145

U.S. Department of the Interior

Bureau of Land Management (BLM), 151

Minerals Management Service (MMS), 152

Videodiscovery, Inc., 154

Natural Gas

American Chemical Society, 5

Baltimore Gas and Electric Company (BGE), 20

BP America, 22

California Energy Commission, 24

Channing L. Bete Publishing Co., Inc., 28

City Public Service (CPS), 31

Consolidated Edison Company of New York, Inc., 35

Culver Company, 37

Dayton Power & Light Company, 38

Denver Earth Science Project, 39

East Ohio Gas, 43

Educational Development Specialists, 46

Energy Source Education Council, 47

Enterprise for Education, 48

Independent Petroleum Association of America, 64

Jacksonville Electric Authority (JEA), 68

Kissimmee Utility Authority (KUA), 73

National Energy Education Development Project (NEED), 84

National Energy Foundation (NEF), 85

National Propane Gas Association, 88

Natural Gas Vehicle Coalition, The, 94

Northeast Utilities, 98

Northern Indiana Public Service Company, 99

Northern States Power Company, 100

Shell Oil Company, 115

University of Florida, 126

U.S. Department of Education

ERIC Clearinghouse for Science, Mathematics, and Environmental Education, 131

U.S. Department of Energy

Clean Cities Hotline, 137

National Alternative Fuels Hotline, 139

National Energy Information Center (NEIC), 140

Office of Fossil Energy, 143

Office of Scientific and Technical Information, 145

U.S. Department of the Interior

Bureau of Land Management (BLM), 151

Minerals Management Service (MMS), 152

Nuclear energy

American Chemical Society, 5

American Nuclear Society, 9

Baltimore Gas and Electric Company (BGE), 20

BP America, 22

Bullfrog Films, 23

California Energy Commission, 24

Channing L. Bete Publishing Co., Inc., 28

Charles Edison Fund, 29

City Public Service (CPS), 31

Edison Electric Institute (EEI), 44

Energy Source Education Council, 47

Enterprise for Education, 48

Florida Power & Light Company, 55

Frey Scientific, 58

Houston Lighting & Power Company, 62

Jersey Central Power & Light Company, 69

National Energy Education Development Project (NEED), 84

National Energy Foundation (NEF), 85

National Geographic Society, 86

New York Power Authority, 95

Northeast Utilities, 98

Northern States Power Company, 100

Nuclear Energy Institute, 101

Nuclear Information and Resource Service, 102

Omaha Public Power District, 104

Pennsylvania Power & Light Co., 106

Radon Group, Ltd., The, 109

Safe Energy Communication Council, 111

Science Screen Report, 112

Simon and Schuster Children's Publishing Division, 116

University of Florida, 126

U.S. Department of Education

ERIC Clearinghouse for Science, Mathematics, and Environmental Education, 131

National Energy Information Center (NEIC), 140

Office of Civilian Radioactive Waste Management, 142

Office of Nuclear Energy, Science and Technology, 144

Office of Scientific and Technical Information, 145

Westinghouse Electric Corporation, 157

Petroleum

American Chemical Society, 5 American Geological Institute, 8

American Petroleum Institute, 10

BP America, 22

California Energy Commission, 24

Channing L. Bete Publishing Co., Inc., 28

Denver Earth Science Project, 39

Energy Source Education Council, 47

Enterprise for Education, 48

Exxon Company, U.S.A., 52

Independent Petroleum Association of America, 64

Jacksonville Electric Authority (JEA), 68

National Energy Education Development Project (NEED), 84

National Energy Foundation (NEF), 85

National Geographic Society, 86

National Propane Gas Association, 88

Shell Oil Company, 115

University of Florida, 126

U.S. Department of Education

ERIC Clearinghouse for Science, Mathematics, and Environmental Education, 131

U.S. Department of Energy

Clean Cities Hotline, 137

National Alternative Fuels Hotline, 139

National Energy Information Center (NEIC), 140

Office of Fossil Energy, 143

Office of Scientific and Technical Information, 145

U.S. Department of the Interior

Bureau of Land Management (BLM), 151

Minerals Management Service (MMS), 152

Recycling

Aluminum Association, Inc., The, 3

American Chemical Society, 5

American Petroleum Institute, 10

American Plastics Council, 11

Arizona Department of Commerce, 17

Aseptic Packaging Council, The, 18

Biofuels America, 21

BP America, 22

Bullfrog Films, 23

California Foundation for Agriculture in the Classroom, 25 Channing L. Bete Publishing Co., Inc., 28

Cobblestone Publishing, Inc., 33

Consumer Aerosol Products Council, The, 36

Dayton Power & Light Company, 38

Disney Educational Productions, 40

Educational Development Specialists, 46

Enterprise for Education, 48

Environmental Education Associates, Inc. (EEA), 49

Environmental Hazards Management Institute (EHMI), 50

Foodservice & Packaging Institute, Inc., 57

Frey Scientific, 58

Global Issues Resource Center, 60

Hawaiian Electric Company, Inc., 61

Indiana Department of Education, 65

Integrated Waste Services Association, 67

Keep America Beautiful, Inc., 71

Learning Works, The, 74

National Energy Education Development Project (NEED), 84

National Energy Foundation (NEF), 85

National Geographic Society, 86

National Rural Electric Cooperative Association, 89

National Wildlife Federation, 93

Northeast Utilities, 98

Northern Indiana Public Service Company, 99

Northern States Power Company, 100

OG&E Electric Services, 103

Polystyrene Packaging Council, 107

Procter & Gamble, 108

Renew America, 110

SC Johnson Wax, 114

Steel Recycling Institute, 121

Troll School & Library L.L.C., 123

University of Florida, 126

U.S. Consumer Information Center, 129

U.S. Department of Education

ERIC Clearinghouse for Science, Mathematics, and Environmental Education, 131

U.S. Department of Energy

Energy Efficiency and Renewable Energy Clearinghouse (EREC), 138

Office of Scientific and Technical Information, 145

U.S. Environmental Protection Agency (EPA), 153

Renewable energy

American Chemical Society, 5

American Forest Foundation, 7

American Solar Energy Society, 13

American Wind Energy Association, 15

Arizona Department of Commerce, 17

Biofuels America, 21

Bullfrog Films, 23

California Energy Commission, 24

California Foundation for Agriculture in the Classroom, 25

Center for Renewable Energy and Sustainable Technology, 27

Channing L. Bete Publishing Co., Inc., 28

Charles Edison Fund, 29

Edison Electric Institute (EEI), 44

Energy Source Education Council, 47

Enterprise for Education, 48

Florida Energy Office, 54

Florida Solar Energy Center (FSEC), 56

Geothermal Education Office, 59

Hawaiian Electric Company, Inc., 61

Houston Lighting & Power Company, 62

Integrated Waste Services Association, 67

Midwest Renewable Energy Association, 75

Minnesota Department of Public Service, 77

National Arbor Day Foundation, 79

National Center for Appropriate Technology, 81

National Corn Growers Association, 82

National Energy Education Development Project (NEED), 84

National Energy Foundation (NEF), 85

National Rural Electric Cooperative Association, 89 New York Power Authority, 95

Northeast Utilities, 98

Northern States Power Company, 100

Pennsylvania Power & Light Co., 106

Radon Group, Ltd., The, 109

Renew America, 110

Safe Energy Communication Council, 111

Science Screen Report, 112

Solar Energy Industries Association, 119

Solar Now Project, The, 120

Union of Concerned Scientists, 124

University of Florida, 126

U.S. Department of Education

ERIC Clearinghouse for Science, Mathematics, and Environmental Education, 131

U.S. Department of Energy

Biofuels Feedstock Development Program, 134

Bonneville Power Administration, 135

Clean Cities Hotline, 137

Energy Efficiency and Renewable Energy Clearinghouse (EREC), 138

National Alternative Fuels Hotline, 139

National Energy Information Center (NEIC), 140

Office of Scientific and Technical Information, 145

Sandia National Laboratories (SNL), 147 Western Area Power Administration, 150

U.S. Department of the Interior

Bureau of Land Management (BLM), 151

Videodiscovery, Inc., 154

Waverly Light and Power, 156

Waste management

Air & Waste Management Association (A&WMA), 1

American Chemical Society, 5

American Forest Foundation, 7

American Geological Institute, 8

American Nuclear Society, 9

American Plastics Council, 11

Aseptic Packaging Council, The, 18

Biofuels America, 21

Bullfrog Films, 23

Channing L. Bete Publishing Co., Inc., 28

Educational Development Specialists, 46

Enterprise for Education, 48

Environmental Education Associates, Inc. (EEA), 49

Environmental Hazards Management Institute (EHMI), 50

Flexible Packaging Educational Foundation, 53

Florida Power & Light Company, 55

Foodservice & Packaging Institute, Inc., 57

Integrated Waste Services Association, 67

Keep America Beautiful, Inc., 71

National Energy Education Development Project (NEED), 84

National Energy Foundation (NEF), 85

National Geographic Society, 86

National Rural Electric Cooperative Association, 89

Northeast Utilities, 98

Northern States Power Company, 100

Nuclear Energy Institute, 101

Polystyrene Packaging Council, 107

Renew America, 110

U.S. Department of Education

ERIC Clearinghouse for Science, Mathematics, and Environmental Education, 131

U.S. Department of Energy

Argonne National Laboratory, 133

National Low Level Waste Management Program, 141

Office of Civilian Radioactive Waste Management, 142

Office of Scientific and Technical Information, 145

U.S. Environmental Protection Agency (EPA), 153

Water

Air & Waste Management Association (A&WMA), 1

American Chemical Society, 5

American Geological Institute, 8

American Water Works Association, 14 BP America, 22

Bullfrog Films, 23

California Foundation for Agriculture in the Classroom, 25

Channing L. Bete Publishing Co., Inc., 28

City Utilities of Springfield, 32

Culver Company, 37

Denver Earth Science Project, 39

Disney Educational Productions, 40

Educational Development Specialists, 46

Enterprise for Education, 48

Indiana Department of Education, 65

Learning Works, The, 74

National Association of Conservation Districts (NACD), 80

National Energy Education Development Project (NEED), 84

National Energy Foundation (NEF), 85

National Geographic Society, 86

National Rural Electric Cooperative Association, 89 National Science Teachers Association, 92

National Wildlife Federation, 93

New York Power Authority, 95

Northeast Utilities, 98

Northern States Power Company, 100

Renew America, 110

University of Florida, 126

U.S. Consumer Information Center, 129

U.S. Department of Education

ERIC Clearinghouse for Science, Mathematics, and Environmental Education, 131

U.S. Department of Energy

Bonneville Power Administration, 135

U.S. Department of the Interior

Bureau of Land Management (BLM), 151

U.S. Environmental Protection Agency (EPA), 153

Videodiscovery, Inc., 154

Water Environment Federation, 155