Energy Education Resources: Kindergarten Through 12th Grade

December 2002

Energy Information Administration National Energy Information Center U.S. Department of Energy Washington, DC 20585

This report is available on the Web at:
http://www.eia.doe.gov/bookshelf/eer/kiddietoc.html
or
ftp://ftp.eia.doe.gov/pub/pdf/other.docs/05462002.pdf

PREFACE

Energy Education Resources: Kindergarten Through 12th Grade is published by the National Energy Information Center (NEIC), a service of the Energy Information Administration (EIA), to provide students, educators, and other information users a list of generally available free or low-cost energy-related educational materials.

The entries are listed alphabetically by organization title. Each entry includes the address, telephone number, and description of the organization and the energy-related materials available. Most of the entries also include Internet (Web) and electronic mail (E-Mail) addresses. In the back of the book there is a subject index cross-referenced by number to the alphabetical entries.

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.

To include a new entry, contact Paula Altman at the following address:

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Copies of this publication are available free of charge from NEIC.

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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 Web: http://www.awma.org

Founded in 1907, A&WMA is a nonprofit, technical, and educational organization with over 12,000 members and subscribers in 69 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 and by providing technical and managerial leadership in the areas of air pollution control, environmental management, and waste processing and control.

A&WMA provides educational materials for teachers and 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 (ERGs)* on air quality and nonpoint source pollution prevention, which focuses on water quality and runoffs. ERGs are supplementary curricula with a hands-on, 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

THE ALLIANCE TO SAVE ENERGY

1200 18th Street, N.W., Suite 900 Washington, DC 20036

(202) 857-0666 Fax: (202) 331-9588

E-Mail: greenschools@ase.org

Web: http://www.ase.org

A nonprofit coalition of business, government, environmental, and consumer leaders who promote the efficient and clean use of energy worldwide to benefit consumers, the environment, the economy, and national security. The Alliance was founded in 1977 by Senators Charles H. Percy (R-IL) and Hubert H. Humphrey (D-MN).

The Alliance's Green Schools Program is a comprehensive energy savings program for schools that incorporate energy education and energy-saving activities in and around the school building. Students begin to understand energy and its link to the environment and economics, and the schools benefit by cutting energy costs. The Green Schools Program brochure, select instructional materials, program contact information and more are available online at www.ase.org/greenschools.

Free single copies of the *Power\$mart: Easy Tips to Save Money and the Planet*, a consumer booklet of strategies on saving energy at home, can be obtained by order form on the Web site above or by calling the number above. **2**

THE ALUMINUM ASSOCIATION, INC.

900 19th Street, N.W. Washington, DC 20006-2168 (202) 862-5100

Fax: (202) 862-5164

Web: http://www.aluminum.org

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

Provides information on recycling. A complete listing of our publications, along with ordering information, is available on our Web site. 3

AMERICAN ASSOCIATION FOR VOCATIONAL INSTRUCTIONAL MATERIALS

220 Smithonia Road Winterville, GA 30683 1 (800) 228-4689 (706) 742-5355 Foy: (706) 742-7005

Fax: (706) 742-7005

E-Mail: ksseab@aavim.com Web: http://www.aavim.com

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

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 *Understanding Electricity*, *Electrical Wiring*, *How Electric Motors Start and Run*, *Fuels and Lubricants*, *Electric Motors*, and *Electrical Controls*. 4

AMERICAN CHEMICAL SOCIETY

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

Fax: (202) 833-7732

E-Mail: m_tinnesand@acs.org Web: http://www.chemcenter.org

The world's largest scientific society with a membership of over 163,000 chemists and chemical engineers.

Publishes educational materials for use in grades 4 through 12. *Best of Wonder Science, Volumes I and II*, offer hundreds of hands-on activities for elementary school students; *ChemMatters*, an award-winning 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

AMERICAN COAL FOUNDATION

101 Constitution Avenue, N.W., Suite 525-East Washington, DC 20001-2133

(202) 466-8630 Fax: (202) 466-8632

E-Mail: acf-coal@mindspring.com Web: http://www.acf-coal.org

A nonprofit educational organization supported by a coalition of coal producers, electric utilities, railroads, mining equipment manufacturers and suppliers, and organized labor.

Teachers can receive free educational materials (teacher packages and coal samples). These materials include: general information brochures on coal, electricity, and land reclamation; coloring and activity book; activity book with teacher guide; activities for elementary and secondary students; coal samples; a coal video guide; a science fair ideas brochure; and posters. Additional copies and other material (video, CD-ROM) are available for a nominal charge. When ordering, include name of organization/school, address, phone/fax numbers, and grade level. Contact above for information. Place order with West Glen Communications, 1430 Broadway, New York, NY 10018, 1 (800) 325-8677, (212) 921-9536 (fax). 6

AMERICAN COUNCIL FOR AN ENERGY-EFFICIENT ECONOMY (ACEE)

1001 Connecticut Avenue, N.W., Suite 801 Washington, DC 20036 (202) 429-8873

Fax: (202) 429-2248 E-Mail: info@aceee.org Web: http://www.aceee.org

An independent, nonprofit organization dedicated to advancing energy efficiency as a means of promoting both environmental protection and economic prosperity.

Publishes a variety of books, reports, consumer guides, and fact sheets. Material covers energy use, efficiency, and related environmental issues in buildings, industry, and transportation. ACEEE's books and reports are written primarily for adults and concern energy-efficient technologies and policies. In addition, the *Consumer Guide to Home Energy Savings* is a popular illustrated handbook for consumers and is a suitable teaching resource for grades 8 through 12. The *Green Guide to Cars and Trucks*, updated annually, is a first-of-its-kind consumer guide that ranks vehicles

according to environmental friendliness. These materials are available for a fee and are described in a free catalog. 7

AMERICAN ELECTRIC POWER

Corporate Communications Community Relations 1 Riverside Plaza Columbus, OH 43215 (614) 223-1668

Fax: (614) 223-1682

E-Mail: blschumann@aep.com

Web: http://www.aep.com/go/education

An investor-owned utility providing energy to 4.8 million customers in Arkansas, Indiana, Kentucky, Louisiana, Michigan, Ohio, Oklahoma, Tennessee, Texas, Virginia, and West Virginia.

Provides free educational services to kindergarten through grade 12 educators *in areas served by American Electric Power*. Internet resources at the Web site listed above include: "The Electric Universe," for students, teachers and parents; and "Learning from Light" and "Learning from Wind," featuring graphs of actual solar and wind power generation at participating schools and sites. Other services may include live electrical safety school presentations by the National Theatre for Children, publications, activity booklets, information centers, tours and nature trails, videotapes, and computer software for teachers and students. Educator workshops also may be available in some States. **8**

AMERICAN FOREST FOUNDATION

Project Learning Tree 1111 19th Street, N.W., Suite 780 Washington, DC 20036 (202) 463-2462 Fax: (202) 463-2461

E-Mail: information@plt.org Web: http://www.plt.org

A nonprofit educational and conservation organization developing, funding, and administering 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.

Project Learning Tree is sponsored nationally by the American Forest Foundation. The program is sponsored at the State level by a variety of State natural resource and education agencies. Crafted to meet State and national standards, PLT provides all the tools educators need to

bring the environment into their classrooms – and their students into the environment. PLT's supplementary curriculum guide, *Project Learning Tree: Environmental Education Pre K-8 Activity Guide* (96 multidisciplinary activities), focuses on the total environment: land, air, and water. It is local, national, and global in scope. The curriculum underscores PLT's primary goal – to increase students' understanding of our complex environment. PLT is designed to teach students how to think, not what to think, about environmental issues. The curriculum remains easily adaptable to many settings from the classroom to youth organizations, museums, nature centers, and Scout troops.

Two of the storylines in the *Project Learning Tree: Environment Education Pre K-8 Activity Guide* focus on energy. The first storyline highlights the concept that energy exists in different forms and comes from renewable and non-renewable sources. The second storyline emphasizes that societies use energy in many different ways and that human use of energy has short- and long-term social, economical, environmental, and health impacts. These energy storylines are comprised of 14 activities.

PLT provides secondary education teachers with a series of topic-specific modules that challenge students to explore every facet of an issue – illustrating the complexity of real-life environmental decisions. In particular, PLT's secondary education module, *Exploring Environmental Issues: Municipal Solid Waste*, helps students explore causes and solutions of this universal urban environmental issue.

PLT offers the Energy & Society kit – energy education materials at the Pre K-8 level. Students learn about their relationship with energy and investigate the environmental issues related to energy's role in society. Energy & Society helps students develop critical thinking skills to make decisions about their personal energy use. In addition to hands-on activities, Energy & Society integrates music and dance to enhance the study of energy issues. The kit includes an activity guide with background information for educators, music CD, dance video, and poster set. The kit is available for sale as well as through workshops.

All PLT curricular materials are available through local workshops. Contact PLT for the name of the program coordinator in your State or visit the PLT Web site for more information on all of PLT's programs. 9

AMERICAN GEOLOGICAL INSTITUTE (AGI)

4220 King Street Alexandria, VA 22302-1502

(703) 379-2480 Fax: (703) 379-7563 E-Mail: agi@agiweb.org Web: http://www.agiweb.org

Established in 1948, the American Geological Institute is a nonprofit federation of 40 member organizations that represent more than 100,000 geoscientists. 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.

AGI distributes information on earth-science education through several mechanisms including inquiry-based curricula for high school (EarthCommTM), middle school (Investigating Earth SystemsTM), and workshops and presentations for teachers and educators. Visit http://www.agiweb.org/education for more information. AGI publishes Geotimes, a monthly news magazine (http://www.geotimes.org), and provides geoscience career information (http://www.agiweb.org/career). During the second full week of October, AGI sponsors Earth Science Week to raise awareness about how the earth sciences affect our lives and society (http://www.agiweb.org/week). Earth Science Week information kits and other AGI publications are available on a secure Web site at http://www.agiweb.org/pubs. 10

AMERICAN NUCLEAR SOCIETY

Outreach Department 555 North Kensington Avenue LaGrange Park, IL 60526 (708) 352-6611

Fax: (708) 352-0499 E-Mail: outreach@ans.org Web: http://www.ans.org

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

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*, and a *Personal Radiation Dose Chart*. A free publications list is available upon request by mail or electronic mail at *outreach@ans.org*.

Teachers may sign up for the free newsletter, *ReActions*, by going to *http://www.ans.org/pi/teachers/reactions/*. *ReActions* contains articles on uses of the atom in everyday life and – in each issue – an "activity card" with a project for classroom use.

Short workshops and sessions are held throughout the year at exhibits, conferences, in-service training, and by invitation. See http://www.ans.org/pi/teachers/workshops/schedule.cgi for the workshop schedule. 11

AMERICAN PETROLEUM INSTITUTE (API)

Communications Department 1220 L Street, N.W. Washington, DC 20005 (202) 682-8118

Fax: (202) 682-8115

Web: http://www.api.org

http://www.classroom-energy.org

http://www.recycleoil.org

A national trade association representing 400 companies involved in all aspects of the U.S. oil and natural gas industry.

API supplies some educational materials on the petroleum industry to teachers at no charge. Available materials include a video for middle school students that illustrates with pop music and dance the often invisible role that petroleum products play in our lives. Entitled "Fuel-Less, You Can't Be Cool Without Fuel," the video is also being distributed by the National Science Teachers Association (one per classroom.) Also available in classroom sets of 25 is an industry overview booklet, *All About Petroleum*, and two brief colorful brochures – one on the products that come from a barrel of crude oil and the other on basic facts about natural gas.

"Energy & Society" education program and teacher kit, developed by API in partnership with Project Learning Tree, an award-winning environmental education organization, is available for purchase. The program won the National Energy Resources Organization's 2002 Public Education Award, presented annually for an outstanding contribution to public knowledge in the field of energy. Classroom components in the teaching kit include posters, a study guide, a music CD and a video, as well as a Web site accessible through www.api.org and www.plt.org. Components may be used collectively or as separate educational units and materials are correlated to State and national education standards. Provides educators with tools to teach Pre-kindergarten through 8th grade students about the role energy plays in daily life. Teacher kit may be ordered for \$28.75 (\$26.45 each for orders of 100 or more) thru the PLT Web site. 12

AMERICAN PLASTICS COUNCIL (APC)

1300 Wilson Boulevard Arlington, VA 22209 1 (800) 2-HELP-90 (703) 741-5000 Fax: (703) 253-0701

Web: http://www.plastics.org

APC is a national trade association representing 24 of the Nation's largest resin producers, including monomer and polymer production and distribution. Founded in 1988, APC demonstrates that plastics are a responsible choice and promotes the countless ways they make people's lives better, healthier and safer. Plastics Make It Possible.®

APC has an interactive, online version of their "Hands on Plastics: A Scientific Investigation Kit curriculum" for grades 5-8, as well as the addition of a K-4 Curriculum. The curricula, found at www.teachingplastics.org, was developed in its original format in conjunction with the National Middle Level Science Teachers Association and features background information on plastics and polymers, multi-media examples of classroom activities, and ties to the National Science Education Standards. The information is also available on a CD-ROM. The free kit of supplemental materials for grades 5-8 curriculum can be ordered online, along with other APC publications. 13

AMERICAN PUBLIC POWER ASSOCIATION (APPA)

2301 M Street, N.W., Suite 300 Washington, DC 20037 (202) 467-2900

Fax: (202) 467-2910

Web: http://www.APPAnet.org

The American Public Power Association is the service organization for the Nation's more than 2,000 community-owned electric utilities that serve more than 40 million Americans.

Provides various general information pamphlets, including: *The Benefits of Public Power*, *Careers in Public Power*, and *All About Electricity and 10 Ways Kids Can Save It*. Also available are two videos, "Simple Things You Can Do To Save Energy" and "Simple Things You Can Do To Save Energy In Your School." The videos were developed through APPA's research and development program, Demonstration of Energy Efficient Developments (DEED). Publications and videos are offered for a nominal fee. DEED scholarship information for college students is available at the above Web site under DEED/R&D. A catalog of APPA's publications and products is also available online. **14**

AMERICAN SOLAR ENERGY SOCIETY (ASES)

2400 Central Avenue, Suite G-1

Boulder, CO 80301 (303) 443-3130

Fax: (303) 443-3212 E-Mail: ases@ases.org Web: http://www.ases.org www.solartoday.org

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

The American Solar Energy Society is a nonprofit membership organization founded in 1954 to encourage the use of solar and renewable energy technologies to be a source of sound, broad technical knowledge and to provide a forum for addressing critical issues relating to these energy technologies. ASES publishes the magazine *SOLAR TODAY*; sponsors the annual National Solar Energy Conference and the Annual ASES National Tour of Solar Buildings; and supports regional chapters throughout the country. ASES is the United States section of the International Solar Energy Society. ASES offers sample copies of its magazine, *SOLAR TODAY*. It has one science project book, "Elementary and Secondary Science Projects in Renewable Energy and Energy Efficiency," available for a fee. See *www.ases.org* or *www.solartoday.org* for more details and to download additional information. **15**

AMERICAN WATER WORKS ASSOCIATION (AWWA)

6666 West Quincy Avenue Denver, CO 80235 1 (800) 926-7337 Fax: (303) 795-1989

E-mail: knitschke@awwa.org Web: http://www.awwa.org

The authoritative resource for knowledge, information, and advocacy to improve the quality and supply of drinking water in North America and beyond. AWWA is the largest organization of water professionals in the world. AWWA advances public health, safety, and welfare by uniting the efforts of the full spectrum of the drinking water community.

Offers educational materials for sale designed to teach young people about water treatment, distribution, and conservation. Materials include activity books, teacher's guides, comic style books, compact disks and videos. Call for a free catalog and visit the Web pages for additional materials. 16

AMERICAN WIND ENERGY ASSOCIATION (AWEA)

122 C Street, N.W., Suite 360 Washington, DC 20001

(202) 383-2500 Fax: (202) 383-2505

E-Mail: windmail@awea.org Web: http://www.awea.org

Since 1974, the American Wind Energy Association has advocated the development of wind energy as a reliable, environmentally superior energy alternative in the United States and around the world. AWEA is a national trade association that represents wind power plant developers, wind turbine manufacturers, utilities, consultants, insurers, financiers, researchers, and others involved in the wind industry – one of the world's fastest growing energy industries.

AWEA offers an Educator's Packet on wind energy, including: the current *Wind Energy Status Report*, which outlines the domestic and international growth of the wind industry; a *Wind Energy Information Guide*, a compilation of additional sources to contact for information about wind energy; *Wind Energy Workbooks* for children; the *Wind Energy FAQ* booklet; and a variety of Fact Sheets on various wind energy topics. Packets are free upon request. Other educational materials, such as books and videos, are available for a fee through AWEA's online bookstore at *www.aweastore.com*. Educators are encouraged to visit the AWEA Web site as well. **17**

ARIZONA DEPARTMENT OF COMMERCE ENERGY OFFICE

3800 North Central, Suite 1400 Phoenix, AZ 85012 (602) 280-1402

Fax: (602) 280-1445 E-Mail: jima@ep.state.az.us

Web: http://www.commerce.state.az.us/

http://azsolarcenter.com

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

Provides the following materials and services for primary and secondary schools: Solar Education Packet for Teachers and *Bright Ideas* (single-topic publication covering energy and the environment, recycling, solar cooking, and photovoltaics). **18**

ASEPTIC PACKAGING COUNCIL (APC)

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

Web: http://www.aseptic.org

A trade association representing the U.S. manufacturers of drink boxes. APC's primary mission is to inform the American public about the product benefits and environmental attributes of aseptic packaging.

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. **19**

BALTIMORE GAS AND ELECTRIC COMPANY (BGE)

Educational Services Attention: Brenda Pettigrew 7225 Windsor Boulevard Baltimore, MD 21244 (410) 265-4098 Fax: (410) 265-4299

Fax: (410) 265-4299 Web: http://www.bge.com

Baltimore Gas and Electric Company is an investor-owned utility serving Baltimore City and all, or part of, nine Central Maryland counties.

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

BP

535 Madison Avenue New York, NY 10022 (212) 451-5010 Fax: (212) 451-8088

Web: http://www.bp.com

The holding company of one of the world's largest petroleum and petrochemicals groups. Its main activities are exploration and production of crude oil and natural gas; refining, marketing, supply and transportation; and manufacturing and marketing of petrochemicals, with a growing activity in natural gas and power and in solar power generation.

The *BP Educational Resources Catalogue* offers a full range of school resource materials. Some of the items in the catalogue are available for a fee. Access it at *www.bpes.com*. The *BP Statistical Review of World Energy* is a booklet containing information on world energy supplies and demand, including 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 *BP Amoco Alive*, an annual environmental and social update. These publications are free to teachers.

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 that are of international environmental interest (e.g., energy and drinking water quality) and are common to science courses internationally. There is a fee that includes lifetime registration on a worldwide database of participating schools. For more information, write to the address above or access www.scienceacross.org. 21

BRONX ZOO/WILDLIFE CONSERVATION PARK

Education Department 2300 Southern Boulevard Bronx, NY 10460 1 (800) 937-5131

Fax: (718) 220-1057

E-Mail: arobinson@wcs.org

Web: http://www.wcs.org/education

The purpose of the Wildlife Conservation Society (WCS), since its founding in 1895 as the New York Zoological Society, has been to save wildlife and inspire people to care about our natural heritage.

The Society continues to pioneer environmental education programs throughout the United States and abroad. It has the world's leading international conservation program devoted to saving endangered species and ecosystems.

WCS offers Voyage From the Sun, a 20-lesson classroom science module for grades 4 through 9. Developed with funding from the U.S. Department of Energy, Voyage is designed to introduce students to the major way in which energy is important to wildlife, focusing on the rain forest and tundra habitats. It encourages students to explore the story of earth's energy – its solar origins, how it is incorporated into living systems through photosynthesis, and how it flows from plants to animals.

During Voyage training workshops, teachers learn strategies for making the study of energy fun and exciting, as well as receiving first-hand training in how to guide their students as the Energy Pyramid becomes a classroom exhibit. Through activities, such as Photosynthesis Scramble and Tundra Math, teachers build the confidence to lead students on a voyage of discovery as they explore how energy is central to biology and how it links the natural and physical sciences. For more information, call the Director of National Programs at the number above. 22

BULLFROG FILMS

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

E-Mail: video@bullfrogfilms.com Web: http://www.bullfrogfilms.com

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

Provides educational films and videos on energy and energy-related issues. Titles include: Biogas from the Sea; Building the Brookhaven House; Design with the Sun; The Four Corners: A National Sacrifice Area?; Global Warming: Turning Up the Heat; How to Keep the Heat in Your House; Kilowatts from Cowpies: The Methane Option; Lovins on the Soft Path; An Energy Future with a Future: Opening Your House to Solar Energy; Rising Waters: Global Warming and the Fate of the Pacific Islands; Silent Sentinels; Turning Down the Heat: The New Energy Revolution; The Next Industrial Revolution:

William McDonough, Michael Braungart & the Birth of the Sustainable Economy: Water Power; Harness the Wind; Living Under the Cloud: Chernobyl Today; Race for the Future; An Energy-Efficient Doghouse; Solar Energy Doghouse; City Lights; Rethink–Pollution Prevention Pays; Recycling With Worms; Planet Neighborhood; It's Eco-Logic; Here's My Question: Where Does My Garbage Go?; Motor; Nuclear Dynamite; Save Our Land, Save Our Towns; Store Wars: When Wal-mart Comes to Town; Wind River; 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-29 Sacramento, CA 95814 (916) 654-4989

Fax: (916) 653-5590

E-Mail: cecetec@energy.ca.gov

Web: http://www.energyquest.ca.gov (Energy Quest)

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

Provides the following printed energy and environmental education material for kindergarten through grade 12 (more resources online): Compendium for Energy Resources (curriculum evaluation); Universal House; Energy Shelter & the California Indian; Conserve and Renew; Let's Get Energized; Energy Math; and 4-H Guide to Home Conservation. *Energy Quest*, an online resource for students, teachers and parents, is dedicated solely to energy education and features information on renewable energy, conservation, safety, energy-related math and science experiments; Ask Professor Quester (for energy questions); word games; and links to other resources. Devoured by the Dark is a Goosebumpslike energy story exploring a travel-through-time adventure for children. The Energy Commission's new Consumer Energy Center, www.consumerenergycenter.org, provides information for older students on renewable technologies, lighting, passive design, transportation, and building materials. 24

CALIFORNIA FOUNDATION FOR AGRICULTURE IN THE CLASSROOM

2300 River Plaza Drive Sacramento, CA 95833 (916) 561-5625

Fax: (916) 561-5697 E-Mail: cfaitc@cfbf.com Web: http://www.cfaitc.org

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.

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. Lesson plans can be used as vehicles for teaching Content Standards for California Public Schools. The Foundation encourages classroom integration of agriculture to increase the 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. 25

THE CENTER FOR ENERGY AND ECONOMIC DEVELOPMENT (CEED)

333 John Carlyle Street, Suite 530 Alexandria, VA 22314 (703) 684-6292 Fax: (703) 684-6297

E-Mail: info@ceednet.org
Web: http://www.ceednet.org

CEED is a nonprofit corporation dedicated to preserving the coal option for America's future energy needs through the use of research, education, and advocacy programs.

CEED works primarily with regional, State, and local policymakers to provide accurate information regarding electricity from coal's role in providing reliable, affordable, and environmentally sound electricity to millions of American families and businesses. CEED provides resource materials related to coal-based electricity generation. Most CEED materials and information are on the CEED Web site at www.ceednet.org. 26

CENTERPOINT ENERGY HOUSTON

Community Relations 1111 Louisiana P.O. Box 1700 Houston, TX 77251

(713) 207-2222 or (713) 207-7579

Fax: (713) 207-9892

E-Mail: lucretia.ahrens@CenterPointEnergy.com

Web: http://www.centerpointenergy.com

CenterPoint Energy is an investor-owned electric and gas delivery company headquartered in Houston and serving seven States from Texas to Minnesota.

The CenterPoint Energy Houston division provides free educational services to K-12 educators in the Houston, Texas, area. Services include classsroom 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 topics such as electrical and natural gas safety. "Electric Universe" and "Energy Underground" Internet Resource for Teachers and Students can be found at the Web site listed above. 27

CHANNING BETE COMPANY

One Community Place South Deerfield, MA 01373-0200 1 (800) 628-7733

Fax: 1 (800) 499-6464

E-Mail: custsvcs@channing-bete.com Web: http://www.channing-bete.com

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

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. Water, Electric and Energy Conservation stickers and growth charts are also available. Contact your local utility for availability or call the above number. Provides educational services fulfillment for utilities. Please call for pricing, a catalog, and a free sample. 28

CHARLES EDISON FUND

One Riverfront Plaza, 4th Floor Newark, NJ 07102 (973) 648-0500

Fax: (973) 648-0400

E-Mail: info@charlesedisonfund.org Web: http://www.charlesedisonfund.org

A charitable foundation providing science teachers with simple, basic, proven fun experimental booklets containing 82 experiments.

Provides "The Best of Edison Science Teaching Kits," which are available to teachers. Each kit contains nine 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; Static Electricity — It's a Snap; and Lewis Howard Latimer Experiments. There is a small fee for handling charges. Write for coupon to receive this kit. These experiments are also located at the above Web site, which can be downloaded free of charge. 29

THE CHLORINE CHEMISTRY COUNCIL (CCC)

1300 Wilson Boulevard Arlington, VA 22209 (703) 741-5829

Fax: (703) 741-6829

E-Mail: info@science-education.org Web: http://www.science-education.org

The Chlorine Chemistry Council, part of the American Chemistry Council, provides information to the public regarding chlorine and promotes the practice and understanding of the responsible stewardship for chlorine and the products of chlorine chemistry.

Making the connection between the periodic table and real life can be challenging, particularly for middle school students. 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 without tackling the whole periodic table at once. The handouts, 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, write to the address above. 30

CITY PUBLIC SERVICE (CPS)

Energy Education Section P.O. Box 1771

San Antonio, TX 78296-1771

(210) 353-2300 Fax: (210) 353-4352

Web: http://www.citypublicservice.com

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

Provides safety and energy educational services free of charge to schools *in the CPS service area*. Services include classroom presentations, a videotape library, curriculum supplements, Electric Universe Web site, Energy Education Center, and powerplant tours. A free *School Safety & Energy Education Program Catalog* is available upon request. **31**

CITY UTILITIES OF SPRINGFIELD

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

Fax: (417) 831-8324

E-Mail: Cara.Shaefer@cityutilities.net Web: http://www.cityutilities.net

A municipal utility serving the metropolitan area of Springfield with electricity, natural gas, water, transit, and telecommunications services. Provides educational services free to instructors in areas served by City Utilities (CU). Offers power plants and water treatment plant tours, classroom presentations, an extensive speakers' bureau, and a variety of energy management resources. City Utilities' partnership with a local high school has become a model for other business and education partnerships. This effort was recognized by the Missouri Department of Education as one of the "Best of the Best Practices for 1999" with more than 130 employees volunteering to assist students. The partnership between CU volunteers and Central High School encourages young people to stay in school and facilitates the school-to-work transition for many students. 32

COBBLESTONE PUBLISHING

A Division of Carus Publishing Company 30 Grove Street, Suite C Peterborough, NH 03458 1 (800) 821-0115

Fax: (603) 924-7380

E-Mail: custsvc@cobblestone.mv.com Web: http://www.cobblestonepub.com

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

Publishes educational materials for students in grades 2 through 9. Energy-related titles are: *Energy: Powering Our Nation; Recycling; Earth: A Global Spaceship; Planet Earth: Home Sweet Home; Amazing Weather; Year of the Ocean; Night Feeders;* and *California: Water.* Materials may be purchased from the publisher. Free catalogs are available upon request. **33**

THE COLORADO ENERGY SCIENCE CENTER (CESC)

1 767A Denver West Boulevard, Suite 49 Golden, CO 80401 (303) 216-2026

Fax: (303) 384-0020

E-Mail: HomeEnergyInvestigation@energyscience.org

Web: http://www.energyscience.org

A nonprofit organization specializing in energy education. Formed by the three managing partners of the National Renewable Energy Laboratory in 1999, CESC educates energy users to make smart investments in clean, costeffective, sustainable energy technology.

The Colorado Energy Science Center has developed the "Energy Science in the Home Activity Guide," a set of hands-on modules that improve student proficiency in math and science while giving students the tools to identify energy efficiency opportunities in their own homes. CESC also organizes an annual contest called the Home Energy Investigation in which student teams analyze energy bills and rank homes based on their potential for energy savings. Private sponsors donate cash and energy efficiency products and services as contest awards. The contest encourages students to articulate what they've learned and to become effective champions of smart energy efficiency investment. CESC seeks opportunities to partner with organizations in other States to offer energy education in K-12 schools. 34

CREATIVE TEACHING PRESS, INC.

P.O. Box 2723

Huntington Beach, CA 92647-0723

(714) 895-5047 or toll free 1 (800) 444-4287

Fax: (714) 895-6547

Web: www.creativeteaching.com

A publisher of educational activity books.

Offers award-winning educational activity books for youth aged 5 to 14. Recycling related titles from Creative Teaching Press include: *Reduce, Reuse, Recycle; Let's Take Care of the Earth*; and *Earth Book for Kids*. These books are available from school supply stores, bookstores, or the publisher. Free catalogs are available upon request. **35**

CULVER COMPANY

104 Bridge Street Salisbury, MA 01952-9904 1 (800) 4-CULVER

Fax: (978) 463-1715

E-Mail: info@culverco.com Web: http://www.culverco.com

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

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. **36**

DENVER EARTH SCIENCE PROJECT

Office of Special Programs & Continuing Education Colorado School of Mines Golden, CO 80401 1 (303) 273-3621 1 (800) 446-9488 x3621 (outside 303 area code)

Fax: (303) 273-3314 E-Mail: desp@mines.edu

Web: http://www.mines.edu/Outreach/Cont Ed/desp.shtml

A teacher enhancement program, in partnership with corporations, Federal agencies, school districts, and professional organizations which provides innovative earth science curricula for use in grades 4 through 12.

Provides, for a fee, a series of educational workshops that address a range of earth science topics developed by trained curriculum development teams, including 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)
- "Do You Know Your 3 R's? Radiation, Radioactivity, and Radon" (grades 7-10)

Each module contains a teacher resource kit which includes a teacher/student notebook, maps, audiovisual materials, posters, oil samples, groundwater models, etc. Call to find out the location of the nearest training site. 37

DISNEY EDUCATIONAL PRODUCTIONS

105 Terry Drive, Suite 120 Newtown, PA 18940 1 (800) 295-5010 Fax: (215) 579-8589

Web: http://www.disney.go.com/educationalproductions

Disney Educational Productions develops and distributes entertaining and thought-provoking videos that excite children of all ages to learn about a variety of subjects. Offers educational videos on energy, the environment, earth science, recycling, and water. Curriculum-oriented videos come with discussion guides and lesson plans. Titles include:

- Bill Nye the Science Guy shows, such as Pollution Solutions, Garbage, and The Water Cycle
 Other relevant Bill Nye titles: Atoms, Electrical Current,
 Wetlands, Rocks and Soil, Atmosphere, Earth's Crust, Erosion,
 Farming, Fossils, Lakes and Ponds, Rivers and Streams,
 Volcanoes, and Wind
- Return to Sender: A Story About Littering
- Recycle Rex (starring Disney's hip animated recycling dinosaur)
- *The Energy Savers* (starring Donald Duck, Mickey Mouse, and Goofy)
- Zort Sorts: A Story About Recycling
- The Great Search Man's Need for Power and Energy

Programs are available for purchase or lease. Call the toll-free number to request a free catalog. **38**

E2: Environment & Education

4567 Tanglewood Trail Boulder, CO 80301 (303) 516-0346 Fax: (303) 527-3244

E-Mail: leslie@wcox.com

A nonprofit organization dedicated to helping young people develop an awareness of environmental challenges and the understanding and skill to take informed and effective action.

E2 developed Environmental ACTION (Analyze, Consider Options, Take Action, In Our Neighborhoods). This is a relevant, supportive, and clearly structured interdisciplinary environmental education curriculum for grades 6 through 12. The program offers six separate modules: Energy Conservation, Water Conservation, Waste Reduction, Chemicals: Choosing Wisely, Food Choices, and Habitat & Biodiversity. Each module provides instruction on how to investigate environmental issues while creating opportunities to practice action skills. The hands-on activities move students from awareness to choice into action. Students conduct an audit of current resource consumption and research alternative practices, services, and technologies. They conclude with a plan for change based on a cost benefit analysis. By having students use the school community as their laboratory, the school becomes a model of sustainable practices. E2 has also developed a *General Resources Guide* for educators. For a fee, E2 will provide training workshops. 39

EARTH FOUNDATION

5401 Mitchelldale, B4 Houston, TX 77092 1 (800) 566-6539 (713) 686-9453 (in Houston)

Fax: (713) 686-6561

E-Mail: nhilton@earthfound.com Web: http://www.earthfound.com

An organization dedicated to environmental education and conservation.

Each year thousands of schools participate in the Earth Foundation's Rescue the Rainforest Project. Thus far, the network of 10,000 active environmental teachers and students is responsible for raising \$7 million for rainforest conservation through the sale of environmental T-shirts. A "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 ten or more acres receive a free follow-up video that shows students live footage of the area. Call 1 (800) 5-MONKEY to receive your "Rescue the Rainforest Kit" and for more information about this project or the Coral Reef Rescue Campaign. 40

EDISON ELECTRIC INSTITUTE (EEI)

701 Pennsylvania Avenue, N.W. Washington, DC 20004-2696

To order publications: 1 (800) 334-5453

Fax your order: (301) 843-0159 Main number: (202) 508-5000 Web: http://www.eei.org

EEI is the association of shareholder-owned electric companies.

EEI suggests that you first contact your local electric company. Many utilities have educational programs about energy and the environment for schools. EEI's educational resources are located in the publications catalog online at http://www.eei.org/products/educational/index.shtml. Publications are available for a fee. 41

EDUCATIONAL DEVELOPMENT SPECIALISTS

5212 Katella Avenue, Suite 206 Los Alamitos, CA 90720 (562) 799-6002

Fax: (562) 799-6006

E-Mail: annateds@aol.com

Web: http://www.edspecialists.com http://www.thinkearth.org

Education program developers and distributors of energy and environmental programs.

Offers the "Energy Source Education Program" (see separate listing) and the "Think Earth Environmental Education Program" nationwide to sponsors who provide the programs free to schools. Materials are also sold directly to teachers and others. The award-winning "Think Earth" curriculum contains nine units, with videos, for students in pre-kindergarten through grade 6, plus an 8th-grade science unit on air quality. A free brochure is available. **42**

EDUCATIONAL DIVIDENDS

302 West Hill Street, Suite 102 Champaign, IL 61820 (877) 359-9444

Fax: (217) 359-9446

E-Mail: carol@educationaldividends.com Web: http://www.educationaldividends.com

Develops educational products that are designed to change the classroom paradigm to consistently produce creative self-learners who are employable.

Using its AND Model, offers classroom activities, curriculum and professional development that integrates technology, standards-based learning, leadership and workplace skills. To learn more about Educational Dividend's products and services, visit the above Web site. 43

ENERGY SOURCE EDUCATION COUNCIL

Program Distribution Office 5212 Katella Avenue, Suite 206 Los Alamitos, CA 90720 (562) 799-6002

(562) 799-6002 Fax: (562) 799-6006

E-Mail: annateds@aol.com

Web: http://www.edspecialists.com

A nonprofit organization involved in developing and distributing quality energy education programs.

The "Energy Source" curriculum includes 4 units: "Offalot" for kindergarten; "Energy Elves" for grades 1 and 2; "Energy Explorers" for grades 3 and 4; and "People Power" for grades 5 and 6. Utility companies and other organizations often purchase units to distribute free to classrooms in their service areas. Units are also sold directly to teachers and others. Free information flyers are available. 44

ENERGYNET U.S.

302 West Hill Street, Suite 102 Champaign, IL 61820 (877) 359-ENET (3638)

Fax: (217) 359-9446

E-Mail: carol@educationaldividends.com

Web: http://www.energynet.net

A nonprofit organization offering standards-based, technology-enriched classroom projects for a moderate fee.

"Energy Detectives" is available for grades 3 through 5 and "Energy Auditing" for grades 6 through 12. Parents and community members are encouraged to become partners with their schools to promote educational excellence via EnergyNet's Community Partnership Initiative. To learn more about the hands-on projects and activities, visit the Web site at www.energy.net. 45

ENTERPRISE FOR EDUCATION, INC.

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

Fax: (310) 394-3539 E-mail: entfored@aol.com Web: http://www.entfored.com

Offers booklets for primary and secondary school science classes free from many electric utilities. Contact the education specialist

at your local electric utility. Materials also may be purchased directly from the publisher. A catalog is available.

Supplies a variety of 8-, 16- and 32-page *Energy and Environmental Skill Builder* color booklets. Teachers can create short-to-comprehensive units based on the subject and grade level. The following are available:

- Environmental "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); and "The Clean Air Challenge," 32 pages with video and science experiment kit (grades 8-10)
- Conservation "Efficiency of Electric Appliances" (grades 6-10); "Climate and Comfort" (grades 6-12); "Is Efficiency the Best Energy Source?" (grades 9-12); "King Barkley's Almost Birthday Disaster," 32-page booklet plus 11-minute sing-along CD (grades K-5); and "Electricity is in the News" (grades 4-8)
- Nuclear Energy "Nuclear Reactor" (grades 8-12); "The Atom and Radiation" (grades 6-12); and "Nuclear Fuel Cycle" (grades 8-12)
- Fossil Fuel "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 "Mouse House Surprise," a 32-page teacher big book and student little book (safety) (grades K-2); "Sam and Jody Save the Circus" (safety) (grades 2 and 3); "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); "An Electrical Engineer Plans an Electrically Safe Outdoor Concert" (safety) (grades 5-9); "Electricity from Wind, Water & Sunlight" (grades 4-8), which includes a lab activity kit; and "Risk: Taking Chances, Making Choices" (grades 6-10)
- Waste Management "Hazardous Wastes from Homes," 40 pages and a 48-page teacher's guide (grades 9-12)
- Water "The Day the Water Stopped" teacher big book and student little book (grades K-2).

ENVIRONMENTAL HAZARDS MANAGEMENT INSTITUTE (EHMI)

10 Newmarket Road P.O. Box 932 Durham, NH 03824 (603) 868-1496 Fax: (603) 868-1547

E-Mail: ehmiorg@aol.com Web: http://www.ehmi.org

An independent, nonprofit environmental, health, and safety education and research institute working to promote environmental responsibility at home, in the workplace, and in the community through education and relationship building.

Offers environmental, health, and safety education and outreach materials for adults and children. Topics include recycling/buy recycled; energy efficiency/conservation and indoor air quality; household chemical product management; water quality; lead poisoning prevention; used oil recycling; composting; and more. The balanced, well-researched information is offered in a variety of formats, including enviro-wheels (slide-charts); tabloid publication for school children; bookcovers; color-in activity books; color-in posters; and videos. There is a fee for all educational materials. Discounts are available on bulk orders. A free catalog is available. 47

EV MEDIA/ENTERPRISE FOR EDUCATION, INC.

1316 Third Street, Suite 103 Santa Monica, CA 90401 (310) 394-3980

Fax: (310) 394-3539 E-Mail: ab50@aol.com

An educational publishing company providing electric vehiclerelated materials.

Provides publications and activity kits on electric vehicles (EV) for schools and the general public. Materials range from color booklets for secondary school students 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 and conservation. Titles include: *Electric Car*, a 16-page color booklet (for grades 7 through 12); the 148-page *Teacher's Electric Car 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, table-top size model electric vehicle; and "The Electric Vehicle Classroom Kit," which includes a classroom set of color booklets; the *Teacher's Electric Car Book*; and five to eight "Electric Flyer Model" kits. The battery/charger option for the EV "Classroom Kit" includes five to eight rechargeable 1.5 volt AA Ni-cad batteries and a four-unit battery charger. Revised materials now include optional motor controller kits, with detailed assembly instructions included in the expanded "Teacher's Electric Car Book." Contact your electric utility electric vehicle department for these materials, which are often offered at no cost to educators. Materials are also available directly from publisher. Call the number above for latest pricing information. 48

FIRSTENERGY CORP.

Community Initiatives Department 76 South Main Street Akron, OH 44308-1890 (330) 761-4247

Fax: (330) 761-4203 E-Mail: tgilman@gpu.com

Web: http://www.firstenergycorp.com/education/

FirstEnergy Corp. is a registered holding company headquartered in Akron, Ohio. Its seven electric utility-operating companies comprise the Nation's 4th largest investor-owned electric system, serving 4.3 million customers within 36,100 square miles of Ohio, Pennsylvania, and New Jersey.

FirstEnergy's energy education program provides free supplemental resources to educators, youth group leaders, and civic organizations in the communities served by FirstEnergy and our operating companies – Ohio Edison, The Illuminating Company, Toledo Edison, Penn Power, Met-Ed, Penelec, and Jersey Central Power & Light – and where we have facilities. These resources can be ordered online at www.firstenergycorp.com/education/.

In addition, check out the latest addition to our site – "The Electric Avenue." This interactive site – offering a world of information on electrical safety, energy sources and efficiency – is designed to be an excellent classroom resource. Electric Avenue also features fun energy-related games and facts geared to all grade levels. **49**

FLORIDA POWER & LIGHT COMPANY (FPL)

Energy Encounter 6501 South Ocean Drive Jensen Beach, FL 34957

1 (877) FPL-4FUN (toll free) or (877) 375-4386

Fax: (772) 467-7565

Web: http://www.fpl.com/encounter

A regulated investor-owned utility serving more than 3.9 million customers in Florida.

FPL's Energy Encounter is a free energy information center that offers interactive exhibits featuring fun and entertaining information about energy, electricity, magnetism and nuclear power. You will embark on a computerized treasure hunt exploring the riches of energy. At the end, you will discover that a souvenir awaits all that find the answers to the energy-related questions.

Hands-on educational programs designed to meet State science curriculum are offered throughout the school year for grades 1 through 12 (by reservation only). Teacher workshops are also offered which focus on science education, energy, and nuclear-related topics. Self-guided tours of the Turtle Beach Nature Trail are available. FPL also offers environmental tours of the Barley Barber Swamp in Indiantown. For more information, call the Energy Encounter toll-free at 1 (877) FPL-4FUN or 1 (877) 375-4386. Or visit our Web site at www.fpl.com/encounter for directions, hours of operation, and upcoming special events. 50

FLORIDA SOLAR ENERGY CENTER (FSEC)

1679 Clearlake Road Cocoa, FL 32922 (321) 638-1000 Fax: (321) 638-1010

E-Mail: info@fsec.ucf.edu

Web: http://www.fsec.ucf.edu/ed/teachers

FSEC is a research institute of the University of Central Florida.

FSEC currently has three free downloadable curriculum units available on their Web site. The units include hands-on activities and PowerPoint presentations and align to science standards. "Solar Matters" is for upper elementary/intermediate students. "Alternative Fuel Matters" is for middle school students, and "Solar Wonders" is for high school students. A fourth unit, "Building Performance Matters," is currently being field tested for high school students. 51

FOODSERVICE & PACKAGING INSTITUTE, INC. (FPI)

150 South Washington Street, Suite 204

Phone: (703) 538-2800 Fax: (703) 538-2817 E-Mail: fpi@fpi.org Web: http://www.fpi.org

Falls Church, VA 22046

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, aluminum, and alternative materials products. Foodservice & Packaging Institute, Inc., supports the environmentally responsible manufacture, distribution, use, and disposal of foodservice disposables.

FPI offers a free teacher's kit (new version available on CD or FPI's Web site) that includes educational materials for middle school environmental science educators. This kit contains a full range of information and student activities, including a new interactive Web page. FPI also offers one-page issue sheets appropriate for middle and high school students on environment and sanitation. These explain the importance of foodservice disposable products to today's consumers. Single copies of these FPI publications are free to educators. Contact FPI for larger quantities. For additional information about other publications, visit the Web site above. 52

FREY EDUCATIONAL RESOURCES

100 Paragon Parkway Mansfield, OH 44903 1 (800) 225-3739

Fax: 1 (877) 256-3739 or (419) 589-1546 E-Mail: customercare@freyscientific.com Web: http://www.freyscientific.com

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

Offers a general science catalog that includes over 100 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. 53

FUEL CELLS 2000

1625 K Street, N.W., Suite 725 Washington, DC 20006 (202) 785-4222

Fax: (202) 785-4313

E-Mail: info@fuelcells.org Web: http://www.fuelcells.org

Fuel Cells 2000 is a nonprofit program to educate people around the world about the potential benefits of fuel cells, an advanced energy generation technology. Fuel cells use chemical reactions to make energy without combustion.

Produces fuel cell information brochures and sends free information packets in response to requests from students, teachers, and the general public. Some publications include the *Fuel Cells in Transportation* brochure and *The Fuel Cell Story* folder with six informative inserts. Also distributes material developed by other organizations, including the *Fuel Cells – Green Power* brochure. The Fuel Cells 2000 Web site provides basic fuel cell information, as well as extensive links; FAQs, a news group; an online bibliography of books and articles; and a gallery of fuel cell product images. Fuel Cells 2000 has launched a "Fuel Cell Career Center" with company job pages for professionals and educational resources, lesson plans, and experiments for teachers and students. **54**

GENERAL ATOMICS SCIENCES EDUCATION FOUNDATION

3550 General Atomics Court San Diego, CA 92121-1194 (858) 455-3335

Fax: (858) 455-3379

E-Mail: pat.winter@gat.com Web: http://fusioned.gat.com

A high technology research and development center.

Offers information to middle and high school teachers and students regarding current U.S. and worldwide nuclear fusion research that is aimed at understanding plasma science and fusion technology and their roles in providing an energy resource for tomorrow's needs. Available materials include a 20-minute video (Spanish, French, or English), "Fusion: Creating a Star on Earth"; "STARPOWER," an interactive learning adventure CD; and a teacher resource guide packed with experiments and a workbook on the electromagnetic spectrum, plasma, and radiation. Classroom posters on fusion, radiation, and the electromagnetic spectrum are also available. These items are available

free while supplies last. *Requests must be sent on school letterhead*. No requests honored by phone. Please visit at the above Web site. **55**

GEOTHERMAL EDUCATION OFFICE

664 Hilary Drive Tiburon, CA 94920 1 (800) 866-4436 (415) 435-4574 Fax: (415) 435-7737

E-Mail: geo@marin.org

Web: http://geothermal.marin.org

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

Provides free booklets, posters, fact sheets, and selected geothermal industry publications (some in class sets). Available for a fee are high school- and elementary school-level videos with transcript and glossary; a 90-page activity-packed geothermal curriculum for grades 4 through 8; and a set of classroom activities for grades 6 through 12 (free with purchase of video). Also a geothermal slide show CD containing 122 colorful graphics and photos is available for sale. The Web site is especially helpful to teachers. **56**

HAWAIIAN ELECTRIC COMPANY, INC.

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

Fax: (808) 543-7412 Web: www.heco.com

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

Provides free teaching materials to educators in areas served by Hawaiian Electric and its subsidiaries, Maui Electric Company and Hawaii Electric Light Company. Services include classroom programs, power plant tours, career and safety programs, and video, CD-Rom, and classroom literature on energy sources, electricity, conservation, renewable energy, and safety for kindergarten through 12th grade. Educational programs also include an annual electric vehicle competition for high school participants and solar energy demonstration projects for middle and high school. A catalog of the educational materials that are available for lending can be accessed through the Hawaiian Electric Web site. 57

HONOLULU CLEAN CITIES

Alternative Transportation Fuels Program c/o City and County of Honolulu 1000 Uluohia Street Kapolei, HI 96707 (808) 587-3809

Fax: (808) 587-3820

E-Mail: mtome@dbedt.hawaii.gov Web: http://www.state.hi.us/dbedt/ert/cc

A nonprofit organization participating in the U.S. Department of Energy's "Clean Cities" program. Members are fleet managers, fuel providers and utilities, government agencies, environmental organizations, and other experts in alternative transportation fuels and alternative fueled vehicles.

Provides a wide array of free alternative fuel- and vehicle-related videos, presentations, and publications to educators, students, fleet managers, and community groups in Hawaii. Other services include tours, alternative fuel displays, workshops, and "ride-and-drive" demonstrations of propane, biodiesel, and electric vehicles. Publisher of *Hawaii's Fun-Fueled Activity Book*, a 32-page book that introduces alternative fuels, pollution, and global warming through games, crossword puzzles, word searches, and "fill-in-the-blank" activities. The activities are suitable for grades 4 through 6; the fact sheets for grades 4 through 12. These activities and fact sheets can be downloaded in the original Microsoft Word format from the Web site listed above. Permission is given to use and modify the fact sheets and activities for non-commercial uses. 58

ILLINOIS DEPARTMENT OF COMMERCE AND COMMUNITY AFFAIRS

Office of Coal Development 620 East Adams, 4th floor Springfield, IL 62701 (217) 524-3820

Fax: (217) 558-2647

E-Mail: bantonin@commerce.state.il.us Web: http://www.commerce.state.il.us

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

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, which is recommended for kindergarten through grade 4 and a teacher's guide for kindergarten through grade 4 entitled Dig It; 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? *Illinois Coal...Energizing the 21st* Century is an integrated high school teaching resource manual covering the formation, history, and uses of coal, as well as clean coal technologies. 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. 59

INDEPENDENT PETROLEUM ASSOCIATION OF AMERICA

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

Fax: (202) 857-0444

E-Mail: flawrence@ipaa.org or govrel@ipaa.org

Web: http://www.ipaa.org

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

Provides, for a fee, an annual yearbook of statistics on the crude oiland 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 and senior high school students. **60**

THE INSTITUTE FOR CHEMICAL EDUCATION (ICE)

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

(608) 262-3033 Fax: (608) 265-8094

E-Mail: ICE@chem.wisc.edu Web: http://ice.chem.wisc.edu

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

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 easyto-find materials; notes on presentation and curriculum integration are included. The Hole in the Ozone Layer – 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. Nanocrystaline Solar Kit – enough materials to make five solar cells (most of the materials can be reused) and a booklet with information on the origins of photosynthesis, use of fossil fuels and renewable energy sources and the effects on the environment. The solar cells use natural dyes from berries and a common paint pigment to generate electricity from light. The booklet contains detailed laboratory directions for assembling a solar cell and circuit set-ups to measure the electrical output of the cell. 61

INTEGRATED WASTE SERVICES ASSOCIATION (IWSA)

1401 H Street, N.W., Suite 220

Washington, DC 20005 (202) 467-6240

Fax: (202) 467-6225

E-Mail: zanneswte@aol.com Web: http://www.wte.org

Integrated Waste Services Association 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 2.5 million homes.

IWSA offers "WasteWorld," a middle school curriculum addressing environmental, economic, and energy-related issues associated with municipal solid waste management. Originally developed with the support of DOE's National Renewable Energy Laboratory, this multimedia simulation presents a balanced view of source reduction, recycling, waste-to-energy, and land-filling, 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 on CD-ROM, revised student activities and teacher's guide, glossary, and resources to supplement student research. Write, call or visit the Web site for more information. **62**

JEA

21 West Church Street Jacksonville, FL 32202 (904) 665-6000

Fax: (904) 665-7386 E-Mail: fullvje@jea.com Web: http://www.jea.com

A municipal electric, water, and sewer utility that serves more than 786,000 customers in northeast Florida.

Provides free energy and water educational resources (booklets, posters, kits, audiovisual materials, plays, etc., for kindergarten through grade 12) to schools *within the JEA service area*. Services include student and teacher materials; speakers; teacher seminars with affiliates E. Dale Joyner Nature Preserve at Pelotes Island, Tree Hill Nature Center, and the new JEA Science Theatre, and

AquaExpo Exhibit at the Museum of Science and History. This exhibit is made up of two parts – the JEA Science Theatre and the AquaExpo. The theatre has a mad scientist and electrical environment. Kids visiting the theatre will participate in science shows and learn about electricity and electrical safety. The AquaExpo focuses on the scarce and precious nature of water and how we can do our part to conserve it. **63**

JOHNSON CONTROLS, INC.

Academy of Energy Education 507 East Michigan Street Milwaukee, WI 53202 (414) 524-5574

Fax: (414) 524-5030

E-Mail: michelle.l.tanem@jci.com Web: http://www.johnsoncontrols.com

Provides facility services and building control system solutions to meet the specific needs of all types of nonresidential buildings, including 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.

Offers, in partnership with the National Energy Foundation, a curriculum-enhancing program that promotes energy education in kindergarten through grade 12-plus and expands into a schoolto-work transition experience. Designed to encourage students to explore energy usage and its impact on the environment, the Academy of Energy Education programs include: Energy Fun for kindergarten through grade 3; Energy Fundamentals for grades 4 through 6; 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 high school students, the Academy features career exploration. College students can participate in externships in exchange for college credits granted by Utah State University. Each program contains a Polaroid camera and film packet to integrate visual learning aspects and the Energy Action Challenge for personal application of energy conservation. For more information, call your local Johnson Controls office or (888) 214-0916. **64**

KEEP AMERICA BEAUTIFUL, INC.

1010 Washington Boulevard Stamford, CT 06901 (203) 323-8987 Fax: (203) 325-9199

E-Mail: info@kab.org Web: http://www.kab.org

A nonprofit organization whose network of local, statewide, and international affiliate programs educate individuals about litter prevention, beautifying and improving communities, and ways to reduce, reuse, recycle, and properly manage waste materials.

Offers educational materials for use in kindergarten through high school. Waste in Place, a curriculum supplement for educators introduces children to responsible waste handling in more than 30 hands-on lesson plans. The curriculum is available for a fee. *Mister Rogers' Activity Book for Young Children* presents information about reuse and recycling in an entertaining and easy-to-understand way, through simple at-home or at-school projects, and is available for a nominal fee. "Get a Grip" is a video with lesson plans about ecoefficiency. Aimed at secondary school students, the program teaches students how to do more while using less. Free samples of KAB lesson plans and other publications are available on the Web site listed above. **65**

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

E-Mail: kidsface@mindspring.com Web: http://www.kidsface.org

A nonprofit children's environmental organization.

Provides free membership to children and teachers. Included with membership is the guide *Our World, Our Future: A Kids Guide to Kids for a Clean Environment* and a membership certificate. Material focuses on environmental topics and offers proactive projects that can be performed at home or at school. Their current project is the Earth Odyssey Campaign, a campaign that will focus on air quality issues, land conservation through recycling, and the creation of wildlife habitats. For information, send a self-addressed stamped envelop to the address above. **66**

KISSIMMEE UTILITY AUTHORITY (KUA)

Office of Corporate Communications P.O. Box 423219

Kissimmee, FL 34742-3219

(407) 933-7777

Toll-free: (877) 582-7700 Fax: (407) 933-1761 E-Mail: cgent@kua.com Web: http://www.kua.com

Florida's sixth largest municipally-owned electric utility serving 58.000 electric, water, and Internet customers in Central Florida.

Provides free energy educational resources (coloring books, booklets, calendars, posters, kits, audiovisual 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. 67

MIDWEST RENEWABLE ENERGY ASSOCIATION

7558 Deer Road Custer, WI 54423 (715) 592-6595

Fax: (715) 592-6596

E-Mail: info@the-mrea.org Web: http://www.the-mrea.org

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

Offers special workshop series for teachers, children, and the general public. Hosts the Renewable Energy and Sustainable Living Fair every June in Central Wisconsin. 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 yearround workshops on renewable energy and energy efficiency. ReNews, a quarterly newsletter, is available for a minimal fee. 68

MINERAL INFORMATION INSTITUTE (MII)

501 Violet Street Golden, CO 80401 (303) 277-9190 Fax: (303) 277-9198 E-mail: mii@mii.org

E-mail: mii@mii.org Web: http://www.mii.org

A nonprofit educational organization providing free resources and contacts to support classroom teachers.

Provides mineral and energy information at no cost to classroom teachers. Companies and other organizations may purchase MII materials at a nominal cost. Materials include videos, posters, lessons, and activities. 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.* Teachers should write on school letterhead to request free materials. Virtually all of MII's materials can be downloaded for free from the Web site. **69**

MINNESOTA DEPARTMENT OF COMMERCE - ENERGY DIVISION

85 7th Place East, Suite 500 St. Paul, MN 55101 (651) 296-5175

Fax: (651) 297-7891

E-Mail: energy.info@state.mn.us Web: http://www.commerce.state.mn.us

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.

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 auditors. The Department's Energy Information Center has a full-time staff to answer consumers' energy-related questions and to provide individualized advice as needed. All printed materials and software are available through the Department's Web page. **70**

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION (NASA)

300 E Street, S.W., Code FE Washington, DC 20546-0001 Web: http://education.nasa.gov

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.

NASA's Education Home Page serves as a cyber-gateway to information regarding educational programs and services offered by NASA for educators and students across the United States. This high-level directory of information provides specific details and points of contact for all of NASA's educational efforts and Field Center offices.

Educators and students utilizing this site will have access to a comprehensive overview of NASA's educational programs and services, along with a searchable program inventory that has cataloged NASA's educational programs. NASA's online home pages, offered by NASA's five areas of research and development, include the Aerospace Technology, Biological and Physical Research, Earth Science, Human Exploration and Development of Space, and Space Science. 71

NATIONAL ARBOR DAY FOUNDATION

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

Fax: (402) 474-0820

E-Mail: education@arborday.org Web: http://www.arborday.org

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

Provides free information on tree planting and care, including correctly planting windbreaks and shelterbelts, in the *Conservation Trees* and *Trees for America* brochures, as well as the *Celebrate Arbor Day Guidebook*. For elementary and middle school-aged children, the National Arbor Day Foundation also has available, for a nominal fee, curriculum kits that stress the contributions made by trees and the importance of environmental stewardship. For samples of the free educational materials and to receive information about the curriculum kits, write or call to request an *Educational Materials Sampler*. 72

NATIONAL ASSOCIATION OF CONSERVATION DISTRICTS (NACD)

408 East Main P.O. Box 855 League City, TX 77574-0855 1 (800) 825-5547 (281) 332-3402

Fax: (281) 332-5259

E-Mail: Ellen-Hutto@nacdnet.org Web: http://www.nacdnet.org

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.

Sponsors conservation education recognition programs for primary 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 and information about the contest. **73**

NATIONAL CORN GROWERS ASSOCIATION (NCGA)

1000 Executive Parkway, Suite 105 St. Louis, MO 63141 (314) 275-9915 Fax: (314) 275-7061

E-Mail: corninfo@ncga.com Web: http://www.ncga.com

Actively represents the interests of producers of the Nation's top grain crop. Membership includes 32,000 growers in 48 States and 42 affiliated State corn grower organizations. NCGA's mission is to create and increase opportunities for corn growers in a changing world and to enhance corn utilization and profitability.

Provides teachers with the Web-based educational program, "Corn in the Classroom," which includes curriculum materials illustrating corn as a reservoir of energy and a renewable substitute for products made from expendable fossil fuels. *The World of Corn* resource booklet, a statistical look at corn markets and trends, can be requested and is provided free by contacting the association. **74**

NATIONAL COTTON COUNCIL OF AMERICA

Education Materials 1918 North Parkway Memphis, TN 38112 (901) 274-9030 Fax: (901) 725-0510

E-Mail: comms@cotton.org Web: http://www.cotton.org

A nonprofit commodity organization representing 25,000 producers and processors of raw cotton. The organization is dedicated to strengthening the cotton industry's ability to compete effectively and profitably in the raw cotton, oilseed, and manufactured product markets at home and abroad.

Provides, for a nominal fee, a variety of print and audiovisual materials on cotton. See above Web site for the latest information on available educational material. **75**

NATIONAL COUNCIL ON ECONOMIC EDUCATION

1140 Avenue of the Americas New York, NY 10036 1 (800) 338-1192 Fax: (212) 730-1793

E-Mail: sales@ncee.net Web: http://www.ncee.net

The National Council on Economic Education is a nonprofit organization dedicated to educating students in the principles of economics and personal finance. Visit our Web site or contact us for information on Teacher Resource Manuals, Student Activity books, and curriculum development materials to assist educators in the K-12 classroom.

The following lessons are offered for a nominal fee. They can be reviewed on the Web site above:

Economics and the Environment – Helps high school students understand the crucial relationship between activity and environmental protection. Activities include courses in environmental studies, economics, natural sciences, social issues, and global issues. Classroom-tested lessons give students insight into a variety of environmental issues. Students learn key concepts – how natural resources are used and why, at times, misused, and how future economic activity can provide for environmental protection as well as for economic growth. Selected by World Wild Life and North American Association for Environmental Education as an exemplary resource to help teach biodiversity.

Economics and the Environment EcoDetectives – Applying economic reasoning to environmental problems for middle school students. Students learn about protecting endangered species, recycling, and resource depletion. Students solve persistent environmental mysteries. Materials highlighted by California Integrated Waste Management Board and California Department of Education, together with the Acron Group.

The Great Economic Mysteries Book – Students in grades 9 through 12 solve engaging mysteries about environmental issues, natural resources, recycling, waste management, and government issues. **76**

NATIONAL ENERGY EDUCATION DEVELOPMENT (NEED) PROJECT

8408 Kao Circle Manassas, VA 20110 1 (800) 875-5029 Fax: 1 (800) 847-1820

Fax: 1 (800) 847-1820 E-Mail: info@need.org Web: www.need.org

National network of students, educators, and business, government and community leaders dedicated to the design and delivery of comprehensive, non-biased kindergarten through 12th grade energy education curriculum.

By meeting local, State, and national education standards, NEED programs provide students and teachers an opportunity to learn about energy through hands-on science, math, drama, social studies, art, and music. Student leadership initiatives encourage students to work with their peers, teachers, family, and community to design energy education programming for their region. The curriculum package is a six- to nine-week unit and is widely adopted for use in the classroom. Memberships are available to educators for little or no cost, based on availability of sponsorship, from NEED's partners and sponsors. Participating educators receive the NEED 2002-2003 Energy Kit with teacher guides to a variety of activities and a full catalog of free items to complete their units based on their grade level. The materials include *Energy Infobooks* (on the primary, intermediate and secondary levels) on the Nation's leading energy sources, curriculum guides that help teachers plan comprehensive units to include the science of energy, energy sources, electricity, transportation, efficiency and conservation, and many evaluation/ assessment and reinforcement options. A variety of training programs for teachers and students are available throughout the school year, and week-long summer training is offered annually.

As a Strategic Partner of the U.S. Department of Energy's *Rebuild America/EnergySmart Schools* program, NEED works with school districts to help schools increase energy efficiency and conservation while helping students understand energy from all perspectives. New materials this year include an Energy Mythology, Energy Science Fair, and Alternative Transportation Fuels. For more information about NEED and our programs, visit *www.need.org* and our EIA partnership project, the *EIA Kid's Page*, at *www.eia.doe.gov/kids*. 77

NATIONAL ENERGY FOUNDATION (NEF)

Resources for Education National Office 3676 California Avenue, Suite A117 Salt Lake City, UT 84104 (801) 908-5800

Fax: (801) 908-5400 E-Mail: info@nefl.org Web: http://www.nefl.org

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

The NEF Academy is a nationwide program of the Foundation which provides university graduate credit to educators for implementation of energy, environmental, and natural resources education in their classrooms. Academy course topics include energy conservation, rocks and minerals, and natural gas fundamentals and safety. Also included is the NEF award-winning Energy Action Patrol. Each course is independent study, with credit offered from accredited universities. NEF currently has active educational partnerships with private and government entities nationwide, including an educational materials fulfillment program providing free natural gas education materials to educators around the country. NEF also offers in-service support to sponsors and school districts. A free full-color catalog of educational resources is available upon request, or you can check it out online at www.nefl.org. 78

NATIONAL GEOGRAPHIC SOCIETY

School Publishing 1145 17th Street, N.W. Washington, DC 20036 1 (800) 368-2728 Fax: (515) 362-3366

Web: http://www.nationalgeographic.com

http://www.nationalgeographic.com/education

A nonprofit organization.

Provides educational materials designed for kindergarten through grade 12 with earth, physical, and environmental sciences curriculum. Materials include videos, books, atlases, globes, software, maps, posters, Wonders of Learning kits, Picture Pack transparency sets, interactive videodiscs, and CD-ROMs. Free catalogs are available upon request. 79

NATIONAL HYDROGEN ASSOCIATION (NHA)

1800 M Street, N.W., Suite 300 Washington, DC, 20036-5802 (202) 223-5547

Fax: (202) 223-5537

E-Mail: nha@ttcorp.com Web: www.HydrogenUS.org

The National Hydrogen Association is an industry-led, not-for-profit association dedicated to removing barriers to the implementation of hydrogen energy systems. The NHA mission is to foster the development of hydrogen technologies and their utilization in industrial and commercial applications and promote the transition role of hydrogen in the energy field.

Publishes the *NHA News*, as well as *Hydrogen Fact Sheets*, and the brochure *Creating a Hydrogen Powered Future*. The *NHA News* is available in electronic format from our Web site and can be used to inform students, grades 9 through 12, of progress in hydrogen technology development. *Creating a Hydrogen Powered Future* is suitable for grades 6 through 12 and is available for a nominal fee if requested in large quantities. **80**

THE NATIONAL HYDROPOWER ASSOCIATION (NHA)

One Massachusetts Avenue, N.W., Suite 850

Washington, DC 20001

(202) 682-1700

Fax: (202) 682-9478 E-Mail: info@hydro.org Web: http://www.hydro.org

An association dedicated to building greater public awareness of the advantages of hydropower as our Nation's most plentiful renewable energy source.

Offers a variety of materials on the production of hydropower, hydro's economic and environmental benefits, and the issues facing the hydropower industry. Posters and educational curriculum are available at nominal cost. An annual conference is held every spring. NHA works closely with the Hydro Research Foundation, the U.S. Hydropower Council for International Development, and other organizations dedicated to hydropower and other forms of renewable energy. Staff is available to answer specific questions and to help identify sources of additional information. **81**

NATIONAL PROPANE GAS ASSOCIATION

1150 17th Street, N.W., Suite 310

Washington, DC 20036

(202) 466-7200

Fax: (202) 466-7205 E-Mail: info@npga.org Web: http://www.npga.org

A national trade association, comprising 3,700 companies, representing all aspects of the propane industry.

Provides environmental, safety, and propane industry information in fact sheets, a coloring book, and an activity book. Also available is an Energy Costs Comparison Calculator. **82**

NATIONAL RURAL ELECTRIC COOPERATIVE ASSOCIATION

Youth Programs 4301 Wilson Boulevard, GR 11-252 Arlington, VA 22203 (703) 907-5500

Fax: (703) 907-5516 E-Mail: nreca@nreca.org Web: http://www.nreca.org

A service organization representing the Nation's 1,000 nonprofit consumer-owned cooperative electric systems, which provide electric service to more than 32 million people in 46 States.

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), and *Careers in Electric Cooperatives*. Publications are for sale. An order form for the materials is available upon request. **83**

NATIONAL SCIENCE TEACHERS ASSOCIATION (NSTA)

Publications Sales 1840 Wilson Boulevard Arlington, VA 22201 1 (800) 277-5300 Fax: (703) 526-9754

E-Mail: pubsales@nsta.org Web: http://store.nsta.org

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

Publishes educational products and activity books for students from kindergarten through college. A free catalog is available upon request. Call 1 (800) 277-5300. **84**

NATIONAL WILDLIFE FEDERATION

11100 Wildlife Center Drive

Reston, VA 20190

E-Mail: wildlife@nwf.org Web: http://www.nwf.org

The Nation's largest 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 and sustainable future.

Publishes the magazines *Wild Animal Baby*TM, *Your Big Backyard* and *Ranger Rick*TM for children, and *National Wildlife* and *International Wildlife* for adults; and produces a **free** *National Wildlife* Federation also produces curriculum units and facilitates teacher training workshops around the country on a variety of topics, including: Habitats, Endangered Species, Water, Wetlands, The Northern Forest, Praires, Wolves, and Bears; as well as offering resources and training to schools interested in creating outdoor learning areas on school grounds through the *Schoolyard Habitats*® Program; information and resources available at *http://www.nwf.org/schoolyardhabitats/*; additional high school specific resources and information can be found at *http://www.nwf.org/earthtomorrow/* or *http://www.nwf.org/education*. Call to schedule an educator workshop or to receive an educator information packet. **85**

NATURAL GAS SUPPLY ASSOCIATION (NGSA)

805 15th Street, N.W., Suite 510 Washington, DC 20005 (202) 326-9300

Fax: (202) 326-9330 E-Mail: mail@ngsa.org Web: http://www.ngsa.org

A national, nonprofit trade association representing integrated and independent companies that produce and market domestic natural gas. Established in 1965, NGSA encourages expanded use of natural gas and regulatory and legislative actions that foster competitive markets.

All materials provided by NGSA are available at www.ngsa.org, which features information about public policy issues of concern to natural gas consumers, as well as to those employed in and interested in the industry. Issues covered include supply issues (exploration and production, challenges and barriers to producing natural gas), issues related to the Federal Energy Regulatory Commission (including the transmission and gathering of natural gas and the rates and regulations of interstate natural gas pipelines), distribution issues (the market pressure on natural gas prices and how it affects the retail price of natural gas), and demand issues (environmental regulations that prevent natural gas from being used to improve air quality and the use of natural gas to generate electricity). An annotated list of natural gas associations is included. 86

THE NATURAL GAS VEHICLE COALITION (NGVC)

400 North Capitol Street, N.W. Washington, DC 20001 E-Mail: kbatte@NGVC.org Web: http://www.NGVC.org

A national organization dedicated to the development of a growing, sustainable, and profitable market for vehicles powered by natural gas and hydrogen.

The NGVC represents more than 180 engine, vehicle, and equipment manufacturers, fleet operators and service providers, natural gas companies, and environmental groups and government organizations interested in the promotion and use of natural gas and hydrogen as transportation fuels. The NGVC is the premier source for information about vehicles powered by natural gas and hydrogen for members and the general public. A variety of publications are available free of charge on the Web site

at wwwg.nvcg.org. The NGVC also hosts the only national conference dedicated to NGVs and hydrogen-powered vehicles.

Driving natural gas- or hydrogen-powered vehicles instead of traditional gasoline or diesel vehicles reduces air pollution and dependence on imported oil. Many schools are using natural gas school buses instead of old, dirty diesel buses to ensure their children ride to school safely. 87

NEBRASKA PUBLIC POWER DISTRICT

Energy Education Team P.O. Box 499 Columbus, NE 68602-0499 (402) 586-5960

Fax: (402) 586-5166

E-Mail: webeditor@nppd.com Web: http://www.nppd.com

A public utility servicing the electric needs of its customers, with a chartered territory including all or parts of 91 of Nebraska's 93 counties.

Provides educational services free of charge to schools and civic groups in the utility's service area. Services include electrical safety assemblies, "Louie the Lightning Bug" presentations, classroom programs and speakers, films/videos, tours of power plants and other facilities, and literature for students and teachers in all grades. Also provides information on Nebraska Public Power District's Environmental and Energy management/conservation issues. All materials are available upon request. 88

NEW YORK STATE GEOLOGICAL SURVEY/ STATE MUSEUM

3140 Cultural Education Center Albany, NY 12230 (518) 486-2002

Fax: (518) 486-2034

E-Mail: rfakundi@mail.nysed.gov

Web: http://nysm.nysed.gov/geology/html

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.

Provides free educational leaflets for both students and teachers for kindergarten through grade 12. Conducts workshops and classes in geological sciences through the New York State Museum in Albany, New York. Produces geological maps and reports for both professionals and the general public. A catalog of publications is available free upon request. **89**

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.noodlehead.com

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

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. 90

NORTH CAROLINA SOLAR CENTER

Box 7401 North Carolina State University Raleigh, NC 27695-7401 (919) 515-5666 1 (800) 336-2786

Fax: (919) 515-5778 E-Mail: ncsun@ncsu.edu Web: http://www.ncsc.ncsu.edu

The North Carolina Solar Center serves as the State's clearinghouse for solar energy programs, research information, education and technical assistance. The Center is sponsored by the State Energy Office Department of Administration and the U.S. Department of Energy, with State Energy Program funds in cooperation with North Carolina State University. It is affiliated with the Industrial Extension Service and the College of Engineering at NCSU.

The Center seeks to advance the use of solar energy through information and education programs and services. The NCSU Solar House, built by the NCSU College of Engineering, is the education headquarters for the Center. The Solar House, which is open to the public, provides a reference library, video library, and educational resources for teachers and students. A computer displaying renewable energy CDs and other Solar Center resources is located in the Solar House library. Our Web site provides a listing of our programs, workshops, special events, fact sheets, books for sale, library bibliography, videos, and other Solar Center resources. 91

NORTHEAST SUSTAINABLE ENERGY ASSOCIATION (NESEA)

50 Miles Street, Suite 3 Greenfield, MA 01301 (413) 774-6051

Fax: (413) 774-6053 E-Mail: edu@nesea.org Web: http://www.nesea.org

The largest regional energy association in the United States and a leading force in public and professional education, advocacy, and policy information.

NESEA offers educational programs and resources that enable teachers and students to explore solutions to the negative impacts of our Nation's use of energy. Topics include renewable energy, clean transportation technologies, environmentally wise everyday choices, and the role of trees in the energy and carbon cycle. Publications available (for shipping and handling costs) include two middle school lesson sets, Getting Around Without Gasoline, and Getting Around Clean & Green; an elementary level (grades 4 through 7) educational challenge entitled *Choose Your Future* Adventure Game to find sustainable solutions to ecological problems; and a new high school unit on alterative fuels entitled Cars of Tomorrow and the American Community. Also offers Totally TREE-Mendous Activities for grades 3 through 6 for a fee; and the Future Wheels for a Sustainable America resource list describing additional educational materials, videos, resource books, and Web sites on sustainable transportation.

In addition, NESEA runs educational programs for teachers, students, and environmental organizations as follows: (1) The Northeast Regional Junior Solar Sprint that invites middle school students to participate in a miniature solar car competition run by area coordinators from the mid-Atlantic, New England, and New York States. (2) The NESEA American Tour de Sol, the electric vehicle championship that invites high school students to build an electric or hybrid vehicle and enter the event and also invites students of all ages to take a field trip to the event and receive a guided tour of the vehicles. (3) The Earth Smart Training Program that provides opportunities for environmental education organizations to incorporate education on transportation issues into their environmental education programs. (4) Solar On Schools curricula development for schools with installed solar-electric systems. Also offers workshops and conferences for educators on the topics outlined above.

NESEA's Web site, 11 local chapters, and publications, such as the *Northeast Sun* magazine, keep a vital and growing network of members informed on the latest information on sustainability as it pertains to energy production and use, buildings, and transportation. Contact NESEA to receive information on any of these offerings. **92**

NORTHEAST UTILITIES

Community Relations-Educational Programs P.O. Box 270
Hartford, CT 06141-0270
1 (800) 286-5000, ext. 4043
Fox: (860) 721, 4331

Fax: (860) 721-4331 Web: http://www.nu.com

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

Conducts electrical school safety programs in all fourth/fifth grade classrooms in areas served by Northeast Utilities system companies. Booklets and posters on electric safety are available to customers and organizations in areas served by Northeast Utilities. Additional pamphlets on hypothermia, heat stress, home safety, energy conservation and weatherization are also available to customers and organizations in areas served by Northeast Utilities System.

Centers of the Northeast Utilities

SmartLiving Center 2231 Berlin Turnpike Newington, CT 06111 1 (800) 228-7764

Web: http://www.smartliving-ct.com

Operating Companies of the Northeast Utilities System

The Connecticut Light and Power Company CL&P P.O. Box 270

Hartford, CT 06141-0270 Web: www.cl-p.com

Western Massachusetts Electric Company WMECO Customer Service Center P.O. Box 2010 West Springfield, MA 01090-2010

Web: www.wmeco.com

Public Service of New Hampshire PSNH P.O. Box 330 Manchester, NH 03105-0330 www.psnh.com 93

NUCLEAR ENERGY INSTITUTE (NEI)

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

Fax: (202) 739-4019

E-Mail: publications@nei.org Web: http://www.nei.org

The nuclear energy industry's Washington-based policy organization.

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 on nuclear energy are available for students and teachers. For more information, contact the NEI Publications Office. **94**

NUCLEAR INFORMATION AND RESOURCE SERVICE (NIRS)

1424 16th Street, N.W., Suite 404 Washington, DC 20036 (202) 328-0002

Fax: (202) 462-2183 E-Mail: nirsnet@nirs.org Web: http://www.nirs.org

A nonprofit information and networking center for citizens and environmental organizations concerned about nuclear power, radioactive waste, radiation, and sustainable energy issues.

Furnishes fact sheets on nuclear waste, safety, general information, and alternative energy. Single copies are available. *The NIRS Energy Audit Manual: How to Audit Campus & City Buildings* is 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 the nuclear industry and events is available, as well as a catalog of related articles. **95**

OFFSHORE ENERGY CENTER

200 North Dairy Ashford, Suite 6220 Houston, TX 77079 (281) 679-8040

Fax: (281) 544-2441 E-Mail: oecstar@aol.com

Web: http://www.oceanstaroec.com

Ocean Star

Offshore Drilling Rig & Museum

Pier 19

Galveston, TX (409) 766-STAR Fax: (409) 766-1242

E-Mail: osmuseum@aol.com

A nonprofit corporation, the Offshore Energy Center is dedicated to expanding the awareness of the vast energy resources beneath the world's oceans and to chronicling the unique heritage and technological accomplishments of the industry that discovers, produces, and delivers these resources in a safe and environmentally responsible way.

The Offshore Energy Center sponsors the Ocean Star, an offshore drilling rig and museum in Galveston, Texas. The museum is a

retired jack-up rig that has been refurbished, enabling visitors to enjoy learning about operating offshore rigs and specialized oil field equipment in a comfortable atmosphere, while experiencing the ambiance and accessibility of a quality museum. Offers group package discounts and is available for rentals. Open daily 10 a.m.-5 p.m. Closed Christmas and Thanksgiving.

Sponsorship for field trips to the museum, overnight programs, and guest speakers are available. The "Knowledge Box," a mobile exhibit showcasing the many aspects of the oil and gas industry, is loaned free to surrounding school districts. The "Knowledge Box" contains teacher resources, hands-on activities, and interactive lessons. The Offshore Energy Center also provides a variety of teacher training workshops assisting with energy, science, and environmental curriculums. **96**

OHIO ENERGY PROJECT (OEP)

7099 Huntley Road, Suite 105A Columbus, OH 43229 (614) 785-1717

Fax: (614) 785-1731

E-Mail: oep@ohioenergy.org Web: http://www.ohioenergy.org

A nonprofit organization where the two major areas of focus are: 1) innovative, FUN, and hands-on education about energy/energy efficiency; and 2) opportunities for students to develop leadership, teamwork, and presentation skills through our "Kids Teaching Kids" approach. Working with teachers only or teachers and students, OEP presents current, accurate, relevant, interdisciplinary, and unbiased information about the whole field of energy – the science, economics, geography, and environmental aspects. OEP has been recognized as an Ohio BEST Practice in Education.

Energy Bike or Energy Cycle programs are among our most popular, utilizing one of the most successful teaching tools for "grabbing" students' attention, while allowing them to "feel and sense" energy use and transformations. Recognized by EPA and EECO as one of the 12 most outstanding environmental education programs, teacher teams are trained at workshops and, in turn, train others in their districts. Various sponsors frequently fund the project and donate the complete package to the districts. Ohio's Energy Smart Schools Program is another major program. A partner in the Recycle America Campaign, OEP works with school districts to involve students in positively affecting their learning environments, while helping save energy and energy dollars and exploring use of alternative energy

sources. Customized programs with the administrators, curriculum directors, and teachers of each school district can incorporate a wide range of OEP materials and program components, as desired.

The "Kids Teaching Kids" Workshop involves a dramatic and positive "domino effect," which reaches hundreds of teachers, thousands of students, and tens of thousands of family and community members each year. The process begins with teachers throughout the State and a team of students (grades 7 through 12) being trained at The Youth Energy Summits. These students co-facilitate with OEP staff members Leadership Workshops and Energy Fairs (the major difference is size), attended by students (grades 4 through 8) and teachers. These groups return to their district and community to conduct a variety of creative energy outreach activities. All of this is celebrated each May in a gala Youth Awards Banquet in Columbus, attended by 600 to 1,000 teachers, student sponsors, and government officials.

The largest affiliate of NEED, OEP offers two Partnership Options for educators. A *free* Network Partnership provides basic materials, free access to most workshops, and periodic updates to OEP information, preferably via e-mail. A second option, a Joule Partnership at a nominal cost, includes a full NEED membership package. **97**

OHIO OIL & GAS ENERGY EDUCATION PROGRAM (OOGEEP)

1718 Columbus Road, S.W. P.O. Box 187 Granville, OH 43023-0535

(740) 587-0444 Fax: (740) 587-0446

E-Mail: rreda@ooga.org Web: http://www.oogeep.org

The Ohio Oil and Gas Energy Education Program is a nonprofit educational program funded by Ohio's oil and gas producers and royalty owners through a voluntary assessment on all crude oil and natural gas produced in Ohio.

OOGEEP offers the following materials: Educational posters – "Productions of Oil and Gas," an Ohio Oil and Gas Activity Map and Information, and a safety poster; educational packets, including hands-on activities; puzzles; coloring books; free teacher workshop materials; Science Fair information; and videos. For detailed information on these materials, please refer to www.oogeep.org/EdMaterials/default.htm. 98

OKLAHOMA ENERGY RESOURCES BOARD

3555 N.W. 58th, Suite 430 Oklahoma City, OK 73112 1 (800) 664-1301 (405) 942-5323

Fax: (405) 942-3435

Web: http://www.oerb.com

An oil and natural gas industry-funded State agency dedicated to energy education and restoring environmentally damaged orphaned and abandoned oil and gas production and exploration sites.

Provides to Oklahoma educators, free of charge, the following: teachers' guides with classroom activities for *Fossils to Fuel* and *Petro Active*, two science-based energy curriculum units for elementary and middle schools. Also sponsors 1-day training in the use of the curricula and reimburses school districts for substitute pay during workshops. Offers, free of charge, a statewide coordinated program entitled "Petro Pros" (Petroleum Professionals in the Classroom). This interactive hands-on program is presented by oil and natural gas industry volunteers who bring energy facts to the classroom in 45-minute presentations. Also free of charge is an oil field safety video, "Play It Smart!" geared to middle school students it explaining the dangers of playing around oil field equipment. It stars members of the Dallas Cowboys football team, as well as other football teams. **99**

OMAHA PUBLIC POWER DISTRICT

Consumer Relations Department 444 South 16th Street, 3E/EP1 Omaha, NE 68102-2247 (402) 636-3751

Fax: (402) 636-3922

E-Mail: sjefferson@oppd.com Web: http://www.oppd.com

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

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 are available upon request. **100**

PACIFIC GAS & ELECTRIC COMPANY (PG&E)

Customer Energy Management Department 245 Market Street, Room 645B, Mail Code N6G P.O. Box 770000

San Francisco, CA 94177 (415) 972-5416

Fax: (415) 973-4961 E-Mail: PMW2@pge.com Web: http://www.pge.com

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

Provides the Energenius Educational Series, several complete curriculum programs 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. 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 California Content Standards. Games and activities can be used inside or outside the classroom and involve both young people and their families. Order materials by going to PG&E's Web site and click on the icon for teachers. 101

PEPCO

701 Ninth Street, N.W. Washington, DC 20068 (202) 833-7500

Web: http://www.pepco.com

Pepco is a regulated electric utility that provides transmission and distribution services and is a wholly owned subsidiary of Pepco Holdings, Inc. Pepco delivers electricity at regulated rates to more than 700,000 customers in Washington, DC, and major portions of Prince George's and Montgomery counties in suburban Maryland.

Provides speakers for classroom presentations on the importance of electricity, electricity as an energy resource, electric safety, how electricity is delivered to homes, transmission and distribution lines, and energy management to all schools in Pepco's service area. Pepco's Web site – www.pepco.com – provides a wealth of information and customer services online. A popular feature is *Megawatt U*, a fun site that teaches children about electricity and electrical safety. There's even a section with safety tips for adults. **102**

POLYSTYRENE PACKAGING COUNCIL (PSPC)

1300 Wilson Boulevard, 13th Floor Arlington, VA 22209 (703) 253-0649

Fax: (703) 253-0651 E-Mail: pspc@plastics.org

Web: http://www.polystyrene.org

The Polystyrene Packaging Council is a business unit of the American Plastics Council. PSPC represents the major resin suppliers of polystyrene and the fabricator companies that use the resin to manufacture polystyrene products. PSPC's mission is to serve as a forum for issues of importance to the polystyrene industry and to serve as the polystyrene industry spokesgroup on issues of importance to selected audiences and the general public.

Offers general information brochures on polystyrene and solid waste management. One copy is available free of charge. 103

PPL CORPORATION

Education Relations/Community Affairs Two North Ninth Street Allentown, PA 18101-1179 (610) 774-6914

Fax: (610) 774-5930 Web: http://www.pplweb

Web: http://www.pplweb.com

PPL Corporation is a worldwide energy corporation. PPL generates electricity at power plants in the northeastern and western United States, sells electricity in key U.S. markets, and delivers energy to nearly 6 million customers in the United States, the United Kingdom, and Latin America.

Provides energy and environmental education materials and programs to educators and students. This includes kindergarten through grade 12 curriculum, employees who volunteer as tutors, Nuclear Energy Seminar for Teachers (NEST) (worth three graduate credits), Energy for Living Workshops, Teaching Environmental Awareness (TEA) workshops, School-to-Career programs, electrical safety programs, a newsletter (*Partners*) for educators, and Let's Get Real real-life problem-solving competition for middle and high school teams. **104**

PROCTER & GAMBLE

Educational Services P.O. Box 599 Cincinnati, OH 45201-0599 (513) 983-2139

Fax: (513) 983-2173 E-Mail: true.tb@pg.com Web: www.pg.com

Public Affairs Division of a consumer products company.

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. **105**

PROPANE EDUCATION & RESEARCH COUNCIL

1776 K Street, N.W., Suite 204 Washington, DC 20006 (202) 452-8975

Fax: (202) 452-9054

E-Mail: info@propanecouncil.org Web: http://www.propanecouncil.org

Promotes the safe use of propane gas as a preferred energy source through consumer education, research, and safety programs. The 21-member Council was authorized by the Propane Education and Research Act of 1996 and was created by industry referendum in 1997.

Produces fact sheets and other materials regarding the safe uses of propane. All information can be found on the Propane Council's Web site. Propane is a clean burning fuel and one of the Nation's most versatile sources of energy. It is a trusted and reliable energy source used by more than 60 million Americans for heating and cooling homes, cooking, refrigeration, drying clothes, heating water, barbecues, lighting, and even gas fireplaces. It is a leading alternative fuel for automobiles and trucks and is widely used for forklifts and other special-duty vehicles and engines. It has many recreational, industrial, agricultural, and commercial applications.

Through the Propane Council, the propane industry is committed to a multi-year, multi-million dollar effort to improve customer and employee safety, to fund research and development of new and more efficient equipment, and to expand public awareness of propane and its many "exceptional" uses and environmental advantages. **106**

RAILROAD COMMISSION OF TEXAS

P.O. Box 12967

Austin, TX 78711-2967

(512) 463-7110 ("Alternative Energy" materials)

Fax: (512) 463-7292 ("Alternative Energy" materials)

E-Mail: robert.heith@rrc.state.tx.us Web: http://www.rrc.state.tx.us

A State energy agency that regulates the oil and gas, alternative fuels, and surface mining industries in Texas. The Commission serves Texans by: its stewardship of natural resources and the environment, its concern for personal and community safety, and its support of enhanced development and economic vitality.

Provides educational materials free to Texas teachers (kindergarten through grade 10). Materials for primary grades are available on the Commission's Web site (click on "Kids's World"). These materials include interactive activities on energy and safety at home, at school, and outdoors. The Commission also provides free educational workshops and a curriculum supplement called "Alternative Energy" for 6th through 10th grade science teachers in Texas. "Alternative Energy" is the second edition of the Commission's successful 1996 "Alternative Transportation Fuels" curriculum supplement. All materials are correlated with Texas Assessment of Knowledge and Skills standards. Printed copies are available in workshops only. All 24 lessons, excluding tests and answer keys, are available on the Commission's Web site (click on "Energy Curriculum"). Materials include an introductory video called "Way Cool Fuels," 24 multidisciplinary lessons, overheads and color classroom posters. Lessons are organized in units called "Energy" (six lessons), "Fuels" (nine lessons), "Technology" (three lessons), and "Environment" (six lessons). A teacher's guide, equipment list, answer keys, glossary, bibliography and a list of additional Web-based and other resources are provided. "Alternative Energy" is funded by a grant from Texas State Energy Conservation Office. 107

RENEWABLE ENERGY POLICY PROJECT (REPP) AND CENTER FOR RENEWABLE ENERGY AND SUSTAINABLE TECHNOLOGY (CREST)

1612 K Street, N.W., Suite 202 Washington, DC 20006 (202) 293-2898

Fax: (202) 293-5857

E-Mail: comments@crest.org Web: http://www.crest.org http://www.repp.org

REPP-CREST is a nonprofit organization dedicated to promoting renewable energy, energy efficiency, and sustainable development, using reliable, unbiased research, and interactive multimedia Web sites

REPP-CREST operates an online clearinghouse of clean energy and energy efficiency information which provides free electronic access to documents, images, directories, and other databases around the world. 108

RENEWABLE FUELS ASSOCIATION

One Massachusetts Avenue, N.W., Suite 820 Washington, DC 20001 (202) 289-3835

Fax: (202) 289-7519

E-Mail: info@ethanolrfa.org Web: http://www.ethanolRFA.org

A national nonprofit association promoting domestically produced renewable ethanol as an alternative to imported energy sources.

Provides general information and an Industry Annual on ethanol, a clean-burning, renewable transportation fuel produced from agricultural feedstocks and wastes. Additional information is available free of charge by visiting the above Web site or calling the above number. 109

SAFE ENERGY COMMUNICATION COUNCIL

1717 Massachusetts Avenue, N.W., Suite 106

Washington, DC 20036

(202) 483-8491 Fax: (202) 234-9194

E-Mail: info@safeenergy.org Web: http://www.safeenergy.org

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

Offers publications and graphics that deal with a variety of issues, including utility deregulation, nuclear power, nuclear waste dangers, global warming, energy efficiency, and renewable energy – all available for a nominal fee. Titles include: Reinventing Electric Utilities; MYTHBusters #10: International Nuclear Power; MYTHBusters #9: Nuclear Power Economics; Power Boosters: Ohio's Energy Efficiency Success Stories (Industrial); and Power Boosters: Pennsylvania's Energy Efficiency Success Stories. Request a publications list for other titles. 110

SAN DIEGO MIRAMAR COLLEGE

Advanced Transportation Technology Center 10440 Black Mountain Road San Diego, CA 92126 (619) 388-7309

Fax: (619) 388-7905

E-Mail: gnewhous@sdccd.net

Web: http://www.transportationtech.com

The Advanced Transportation Technology (ATT) Center at Miramar College was initiated in 1996. It is one of ten centers throughout California dedicated to transforming the workforce in the rapidly developing, technology-driven transportation industry, while improving the environment and stimulating the economy. Such a transformation includes education and programs in transportation-related areas that are developed and provided to elementary, middle, and high school students.

At San Diego Miramar College, the ATT Center works to integrate new technologies and information on new fuels into the curriculum of the college's diesel, aviation, and automotive programs, as well as working to integrate those programs with the academic offerings of the school. In turn, these programs are adapted to provide education to younger students in a variety of outreach activities and information. An example of this is our booklet *Introduction to Alternative Fuels and Alternative Fueled Vehicles*. This booklet is free upon request or can be downloaded from our Web site. **111**

SCIENCE SCREEN REPORT (SSR)

1000 Clint Moore Road Boca Raton, FL 33487-2806 1 (800) ASK-INFO Fax: 1 (888) FAX-3737

E-Mail: scott@ssrvideo.com Web: http://www.ssrvideo.com

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

Science Screen Report and Science Screen Report for Kids are ongoing secondary and elementary videotape series that focus on the most recent developments in science, technology, and engineering. Produced since 1970, SSR is a proud participant in the National Science Foundation's Presidential Awards for Excellence in Mathematics and Science Teaching. SSR is designed to stimulate student interest in the challenges and opportunities of pursuing careers in science. More than 650 corporations currently sponsor SSR to 3,500 school districts nationwide. The videotapes have a long shelf life to allow repeated use year after year and become the permanent property of the school system. 112

SCIENCE SERVICE

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

Fax: (202) 785-1243

E-Mail: sciedu@sciserv.org Web: http://www.sciserv.org

The mission of Science Service is to advance the understanding and appreciation of science among people of all ages through publications and educational programs.

Science Service administers three youth programs. The Intel 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. The Science Talent Search awards \$530,000 in scholarships to 40 finalists. Top prize is a \$100,000 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 recommendations. The submission deadline

can be as early as late November, but no later than early December. For an official entry form and specific deadline, contact Science Service. The Discovery Channel Young Scientist Challenge is a national science competition for 5th through 8th graders. Students participate in their regional and/or State science fair. Four hundred semifinalists are chosen and announced in early September. Later, in September, 40 finalists are announced. In late October, the finalists travel to Washington, DC, for an all-expense-paid trip to compete for over \$40,000 in scholarships and trips. 113

SHELL OIL COMPANY

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

Fax: (713) 241-6988

Web: http://www.shellus.com

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

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 *Count on Shell Driving Safety* booklets. Booklets are free of charge but quantities are limited. **114**

SMORK'S AWESOME INTERNET SITES FOR KIDS

14 Cross Street Dundas, Ontario, Canada, L9H 2R4 1 (866) 628-9539 x 306 (416) 422-1579

(416) 422-1579 Fax: (905) 628-9669

E-Mail: Deanna@smork.com Web: http://www.smork.com

A wonderful new Internet guide for elementary school-aged children, written by teachers and moms.

Provides children with safe and appealing Internet resources for homework, entertainment, environment, energy conservation, volunteering, and community building. Smork's Safe URLS helps children avoid the risk of arriving at sites that are not appropriate for them. Important tips on accessing the Internet safely and effectively are distributed throughout the book. Fun illustrations, fascinating

facts, engaging questions and activities make this a book that children enjoy referring to often. Recommended by teachers and E-Learning Coordinators across the United States and Canada, this publication is available online at www.smork.com and is also a popular fundraiser in elementary schools. 115

SOCIETY OF AUTOMOTIVE ENGINEERS (SAE)

SAE Foundation 400 Commonwealth Drive Warrendale, PA 15096-0001 1 (800) 457-2946

Fax: (724) 776-0890 E-Mail: awim@sae.org

Web: http://www.sae.org/students/awim.htm

The SAE Foundation is dedicated to supporting the development of educational programs to improve mathematics, science, and engineering education, from the elementary grades through graduate school.

Provides "A World in Motion: The Design Experience (AWIM)," a series of three specially adapted engineering design challenges for grades 4 through 8. AWIM is a multi-disciplinary curriculum, which includes math, science, social studies, and technology education. The program is an integrated curriculum built upon a real-life scenario. The goals of AWIM are to improve the teaching and learning of science, mathematics, and technology education through the integration of the disciplines. AWIM is a program based on an engineering design experience, suitable for elementary and middle school students and teachers, to strengthen the collaboration between students in design teams and teachers in teaching teams, and to mobilize members of the community as classroom volunteers in support of a curriculum experience. Please e-mail or write to SAE to obtain information on how to receive a free copy of "A World in Motion" for your local school. 116

THE SOCIETY OF THE PLASTICS INDUSTRY, INC. (SPI)

1801 K Street, N.W. Washington, DC 20006 (202) 974-5200

Web: http://plasticsindustry.org

Founded in 1937, The Society of the Plastics Industry, Inc., is the trade association representing one of the largest manufacturing industries in the United States. SPI's 1,400 members represent the entire plastics industry supply chain, including processors, machinery, and equipment manufacturers, and raw material suppliers.

SPI provides educational resources for elementary and middle-school educators and information for consumers to increase public understanding of the facts related to plastic bags. The "Don't Let a Good Thing Go to Waste" is an environmental education program for students in grades 2 through 5. "An Ounce of Prevention" is a middle school curriculum. Its poster-lesson plan on the Life of a Hamburger comprise a complete resource for teaching the elements of waste generation and prevention. The full nine-activity curriculum, developed with the National Science Teachers

Association and Dow Chemical Company, helps students see how many resources are consumed and how much waste is generated in daily-life activities, such as eating a hamburger and choosing plastic or paper at the supermarket checkout counter. These activities help them realize the value of prevention when it comes to waste. 117

SOLAR ELECTRIC POWER ASSOCIATION (SEPA)

1800 M Street, N.W, Suite 300 Washington, DC 20036 (202) 857-0898

Fax: (202) 223-5537

E-Mail: SolarElectricPower@ttcorp.com Web: www.SolarElectricPower.org

A nonprofit trade association of energy service providers and the photovoltaic industry working together to create and encourage commercial use of solar electric power.

SEPA helps to establish standards for solar electricity systems and their connection to the utility grid, hosts cross-industry workshops, and manages educational and outreach campaigns.

Publications include: Schools Going Solar, Volumes I & II: a guide to schools enjoying the power of solar energy; the SEPA Record, a solar energy newspaper about current projects and events in the industry; community PV (CD-ROM) "How you can use solar power, solar programs in North America," describes successful solar energy projects and includes a "solar town meeting" (available for a nominal fee); "Solar Power—Making the Dream Real" is a 10-minute videocassette tape (available for a nominal fee); 4.5 Megawatts & Counting: Technology and Business Perspectives on TEAM-UP; and "Large and Small Solar Systems Cost Reports," detailing the costs of residential and large solar electricity projects installed as part of a Department of Energy and SEPA collaboration (available for a nominal fee). 118

SOLAR ENERGY INDUSTRIES ASSOCIATION

1616 H Street, N.W., 8th Floor Washington, DC 20006 (202) 628-7979

Fax: (202) 628-7779 E-Mail: info@seia.org Web: http://www.seia.org

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

Publishes *Renewable Energy Fact Sheets*, which include 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

SOLAR NOW, INC.

The Sunroom 100 Sohier Road Beverly, MA 01915 (978) 927-9SUN

Fax: (978) 927-9191

E-Mail: solarnow@attbi.com Web: http://www.solarnow.org

A national nonprofit organization providing education about all forms of renewable energy to teachers, students, environmentalists, and sustainability enthusiasts.

Provides programs for students and educators seeking hands-on renewable energy education. Based at one of the Nation's largest photovoltaic sites, our field study center also hosts a 10kW windmill and an interactive classroom. Field trips may be arranged by calling the above number. The following are also offered: comprehensive teacher education workshops, summer internships for college students, a library of renewable energy activities, and student conferences. A desktop publication, A Curriculum Framework for Education in Environmental and Renewable Energy Science: Grades Pre-Kindergarten through 1st Year College, is available for a small fee. 120

STEEL RECYCLING INSTITUTE

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

Fax: (412) 922-3213

E-Mail: sri@recycle-steel.org Web: http://www.recycle-steel.org

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

Provides materials for primary, middle, and secondary school educators. Materials include *Nature's for ME*, a preschool teacher's guide filled with nature-related interactive exercises; "Let's Recycle Together," a finger puppet and four coloring poster play scenes/ stories for ages 4 through 7; "YES I CAN!," a video and teacher's guide for grades 1 through 3; and "Earth Cycles," a cross-age teaching program for grades 8 through 12 and grades 3 through 5. The guide outlines three hands-on activities; "Roscoe's Totally Cycled World," a new middle school CD-ROM with interactive missions in science, language arts, math, and social studies; and "Cycles for Science," high school curriculum supplements for biology, chemistry, physics and earth/life science, and a community volunteer activities guide to support the program. Information and prices are available through order forms. Additional materials, such as activity sheets and a coloring poster, are available. Please indicate grade level(s) for which materials or order forms are needed. 121

THE WILDS

14000 International Road Cumberland, OH 43732 (740) 638-2220

Fax: (740) 638-2287

E-Mail: shubbard@thewilds.org Web: http://www.thewilds.org

The Wilds is a nonprofit organization working to advance conservation through education and research programs which emphasize the intensive management of wildlife resources.

Situated on 9,154 acres of reclaimed strip-mined land, The Wilds manages more than 20 species of large mammals in open range settings for education, breeding and research. Education programs for elementary, middle, and high school-aged students include free lessons from the innovative, interdisciplinary curriculum, "Wildlife

Conservation Studies Program," available on the education Web site at *www.thewilds.org*. Also available are distance learning programs which utilize interactive video to reach classrooms with problembased, science instruction. On-site programs include guided tours, day camps, and overnight camps – all focused on building knowledge, skills, and attitudes important to the restoration of habitat and the conservation of wild spaces and wild species. **122**

UNION OF CONCERNED SCIENTISTS (UCS)

Two Brattle Square

Cambridge, MA 02238-9105

(617) 547-5552

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

UCS is not just for scientists! Join online today at http://www.ucsusa.org/public_ssl/joinform.html

The Union of Concerned Scientists is a nonprofit partnership of scientists and citizens combining rigorous scientific analysis, innovative policy development, and effective citizen advocacy to achieve practical environmental solutions.

Established in 1969, we seek to ensure that all people have clean air, energy, and transportation, as well as feed that is produced in a safe and sustainable manner. We strive for a future that is free from the threats of global warming and nuclear war and a planet that supports a rich diversity of life. Sound science guides our efforts to secure changes in government policy, corporate practices, and consumer choices that will protect and improve the health of our environment globally, nationally, and in communities throughout the United States. In short, UCS seeks a great change in humanity's stewardship of the earth. Materials for educators can be found at http://www.ucsusa.org/environment/educators.html. Reports and fact sheets can be downloaded from our Web site. 123

UNIVERSITY OF ILLINOIS AT URBANA - CHAMPAIGN

School of Architecture – Building Research Council 1 East St. Mary's Road Champaign, IL 61820 1 (800) 336-0616 or (217) 333-7551

Fax: (217) 244-2204

E-Mail: kgallghr@uiuc.edu Web: http://www.arch-orders@uiuc.edu

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A nonprofit information clearinghouse and research center.

Publishes 8-, 12-, and 16-page booklets on how to make homes comfortable, healthy, and energy efficient that 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 free publications catalog is available upon request. A complete set of 27 booklets is available for instructors and home owners. Bulk rates are available. A limited number of publications are available directly from the Web site in PDF format. **124**

U.S. DEPARTMENT OF AGRICULTURE NATURAL RESOURCES CONSERVATION SERVICE (NRCS)

Conservation Communications Staff P.O. Box 2890 Washington, DC 20013 (202) 720-3210

Fax: (202) 720-1564

Web: http://www.nrcs.usda.gov

Since 1935, NRCS, formerly the Soil Conservation Service, has been the Nation's leading conservation agency working with private landowners who manage 70 percent of the land and 80 percent of the water resources in the United States.

Through its national system of county-level offices, NRCS provides technical natural resource conservation program assistance (e.g., Conservation Technical Assistance, Environmental Quality Incentives Program, and the Wetlands Reserve Program) to private landowners. NRCS works with all levels of government to address resource issues at the local to international levels and operates several programs (e.g., Soil Survey and Snow Survey and Water Supply Forecasting) that assist resource managers in their decision-making process. Natural resource conservation programs are designed to reduce pollution, improve soil and water quality, increase wildlife habitat, and provide many other environmental benefits in an energy-efficient manner.

NRCS assists and maintains working relationships with numerous educational, youth, civic, environmental, and conservation organizations with their resource conservation issues and materials development. Limited quantities of free materials about natural resource conservation topics are available from NRCS. Many of these materials have been designed for the educational audience and are adaptable to fit educator's curricular needs. They include the Water Cycle: Nature's Recycling System poster, Your Hometown Clean Water Tour booklet, Conquest of the Land Through 7,000 Years, Buffers—Common Sense Conservation, Ponds—Planning Design, Construction (a technical document), plus the very popular Backyard Conservation booklet and related materials.

Published soil surveys, normally prepared on a county-by-county basis, are available from your local NRCS office. Soil surveys provide detailed descriptions of local soils, their location, genesis, characteristics, and suggested best uses. To expedite contact with NRCS and to obtain the address and phone number of your local NRCS office, check your local telephone directly under U.S. Government, U.S. Department of Agriculture, Natural Resources Conservation Service. To order publications, including a Teacher's Packet, e-mail your request to <code>landcare@swcs.org</code> or telephone 1-888-LANDCARE. Please allow 10-15 days for receipt of the materials. Visit the NRCS Web site, <code>www.nrcs.usda.gov</code>, to review materials and resources available through the agency's various institutes and centers. **125**

U.S. DEPARTMENT OF COMMERCE NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION (NOAA)

Office of Public and Constituent Affairs 14th & Constitution Avenue, N.W., Room 6217 Washington, DC 20230 (301) 713-1208

Web: http://www.education.noaa.gov

A Federal agency with programs that advance the Nation's science education goals by expanding and enhancing the scientific competence of all students, teachers, and the general public.

Provides information free of charge to students, teachers, librarians, and the general public about the earth's oceans and atmosphere, including the topics of endangered marine mammals, severe and hazardous weather, El Niño/La Niña, NOAA weather radio, coastal

management, weather satellites, and global warming. Information about NOAA's educational programs, like the Teacher at Sea, is also available from this office. Additional information can be found at www.education.noaa.gov. 126

U.S. DEPARTMENT OF EDUCATION ERIC CLEARINGHOUSE FOR SCIENCE, MATHEMATICS, AND ENVIRONMENTAL **EDUCATION (CSMEE)**

1929 Kenny Road Columbus, OH 43210-1080 1-(800) 276-0462 (614) 292-6717

Fax: (614) 292-0263 E-Mail: ericse@osu.edu Web: http://www.ericse.org

One of 16 ERIC clearinghouses, the ERIC Clearinghouse for Science, Mathematics, and Environmental Education develops, maintains, and makes accessible to the public the world's largest education-related database which includes over 972 items relating to energy education.

ERIC/CSMEE, sponsored by the National Library of Education, U.S. Department of Education, has as its primary function the acquisition and dissemination of printed materials related to science, mathematics, and environmental 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 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. The Clearinghouse World Wide Web server can be accessed

at www.ericse.org. 127

U.S. DEPARTMENT OF EDUCATION OFFICE OF EDUCATIONAL RESEARCH AND IMPROVEMENT (OERI)

P.O. Box 1398 Jessup, MD 20794-1398 1 (877) 4ED-PUBS Fax: (301) 470-1244

Web: http://www.ed.gov

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

The Office of Educational Research and Improvement publishes a wide range of research information for families, teachers, administrators, policymakers, researchers, students, and others with an interest in educational research. To search all publications available through the U.S. Department of Education, go to http://www.ed.gov/about/ordering.jsp or call 1 (877) 433-7827. All publications are free. 128

U.S. DEPARTMENT OF ENERGY ARGONNE NATIONAL LABORATORY

Division of Educational Programs 9700 South Cass Avenue Argonne, IL 60439 (630) 252-4114

Fax: (630) 252-3195

Web: http://www.dep.anl.gov

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

Provides three continuing programs for kindergarten through grade 12 teachers as follows: (1) The Argonne Community of Teachers, a local organization of teachers who have participated in Argonne programs in the past and who continue to work with the Laboratory to improve science education for schools in the Chicago area; (2) The Educational Networking Consortium, a training and Internet access organization that attempts to train and connect Chicago area teachers to the Internet by using a collection of dial-in sites in collaboration with the Illinois State Board of Education; and (3) NEWTON, The Science Teachers Bulletin Board, which offers a place where teachers and students can discuss education and ask questions of practicing scientists. The bulletin board can be reached by Telnet at newton.dep.anl.gov. Web site for all three programs: www.dep.anl.gov. See section "Science, Technology and Education – Precollege Programs." 129

U.S. DEPARTMENT OF ENERGY BIOENERGY FEEDSTOCK DEVELOPMENT PROGRAM

Oak Ridge National Laboratory

P.O. Box 2008

Oak Ridge, TN 37831-6422

(865) 574-7364

Fax: (865) 576-8143 E-Mail: bfdp@ornl.gov

Web: http://bioenergy.ornl.gov/

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

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 of fact sheets, reports, and bibliographies. In addition, a World Wide Web/Internet service, the Bioenergy Information Network, contains full text of many of the reports, newsletters, and fact sheets and provides pointers to other places with related materials. 130

U.S. DEPARTMENT OF ENERGY BONNEVILLE POWER ADMINISTRATION (BPA)

Community Education Program-DR-7 P.O. Box 3621

Portland, OR 97208-3621

(503) 230-5341

Fax: (503) 230-4576 E-Mail: pnevans@bpa.gov Web: http://www.bpa.gov

Bonneville Power Administration is both an electric utility and a Federal agency within DOE. Established in 1937, BPA markets electric power from Federal dams and other energy resources in the Pacific Northwest. BPA employs approximately 3,100 persons in Idaho, Montana, Oregon, and Washington. The majority of the agency's work is 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.

Participates in a variety of education programs for K-12 in the BPA four-State service area. Programs include science competitions, mentoring and tutoring, environmental education, summer science camps, worksite visits, and others. Educational materials designed

for K-12 on the topics of electricity, energy efficiency/conservation, and fish and wildlife are loaned or given free of charge to teachers in BPA's service territory (Oregon, Washington, Idaho, and Western Montana). Educational resources include curricula, hands-on activities, storybooks, posters, and videotapes. The following link is to the BPA teachers' resources: http://www.bpa.gov/Corporate/KR/ed/page6.htm. 131

U.S. DEPARTMENT OF ENERGY CARBON DIOXIDE INFORMATION ANALYSIS CENTER (CDIAC)

MS-6335, Building 1509 Oak Ridge National Laboratory P.O. Box 2008 Oak Ridge, TN 37831-6335 (865) 574-0390

Fax: (865) 574-3645 E-Mail: cdiac@ornl.gov Web: http://cdiac.ornl.gov/

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

Provides data and information products that would be of value to users concerned with greenhouse effect and global climate change. Information materials suitable for middle and high school students include, but are not limited to, the newsletter, CDIAC Communications (http://cdiac.ornl.gov/newsletr/ccindex.html), which describes CDIAC, DOE, and other initiatives in global change research; Trends Online: A Compendium of Data on Global Change (http://cdiac.ornl.gov/ trends/trends.htm), a quick source of frequently requested data; Glossary: Carbon Dioxide and Climate (http://cdiac.ornl.gov/pns/ glossary.html) contains a glossary of CO₂-related terms and tables of information related to CO₂ and climate; and Global Change Acronyms and Abbreviations (http://cdiac.ornl.gov/pns/acronyms.html), which provides a comprehensive listing of acronyms and abbreviations used in global change research, policy, and education settings. CDIAC also distributes a computer model on global energy – CO, emissions, The IEA/ORAU Long-Term Global Energy CO, Model that is suitable for high school and college students. This computer model package utilizes variables to interactively produce CO, and CH₄ emission scenarios for 1975 through 2100. A complete listing of CDIAC data and informational products is available from the Web site or in CDIAC's Catalog of Databases and Reports (http://cdiac.ornl.gov/epubs/catalog/index.htm). 132

U.S. DEPARTMENT OF ENERGY CLEAN CITIES HOTLINE

9300 Lee Highway Fairfax, VA 22031 1 (800) CCITIES or (224-8437) (703) 934-3068

Fax: (703) 934-3183 E-Mail: ccities@nrel.gov

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

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

Provides implementation and technical information on the DOE's Clean Cities Program. Helps 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 9 a.m. and 6 p.m., Eastern standard time. The toll-free 800 number is available to callers in the United States only. **133**

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)

Fax: (703) 893-0400

E-Mail: doe.erec@nciinc.com Web: http://www.eren.nrel.gov

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

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, software, bibliographies, project contacts, kits, and equipment. Publications suitable for primary and secondary school students are available. Teachers and librarians may request activity lists, bibliographies, and background materials. Publications are free. **134**

U.S. DEPARTMENT OF ENERGY LOS ALAMOS NATIONAL LABORATORY

Science Education Program Office P.O. Box 1663, MS M709 Los Alamos, NM 87545 (505) 667-8680

Fax: (505) 665-6871

E-Mail: angela_m@lanl.gov

Web: http://education.lanl.gov/EPO/

A DOE-funded national laboratory.

Los Alamos National Laboratory offers elementary- through university-level educational programs for students, teachers, and the public. They include teacher programs, student programs, internships, and postdoctoral appointments. Topics include: educational technology, curriculum and resources, public understanding of science, and diversity programs. Some programs are national in scope, while others are regional or local. Each of the programs is described on our Web site listed above.

Available products include: (1) *Science at Home*, a book of science experimental activities for elementary and middle school students and parents to complete together using commonly available materials. (The Billerica, MA 01862, phone (508) 667-8000, fax (508) 667-5706, toll free (800) 225-0248, the book was published in 1997 and its ISBN is 0-7609-0236-4); (2) *Hydrogen and the Materials of a Sustainable Energy Future*, a notebook of experiments and demonstrations for teachers that were presented at the National Educator's Workshop: UPDATE 96; (3) *Model Nets*, a National Study of Computer Networking in K-12 Education and *Model Nets Guide*, a guide to implementing networking technology in K-12 education; (4) the *Seventh Generation*, *Environment*, *Safety*, and *Health at Los Alamos National Laboratory: A Report to Our Communities*; and (5) *Fuel Cells – Green Power*. **135**

U.S. DEPARTMENT OF ENERGY NATIONAL ALTERNATIVE FUELS HOTLINE (NAFH)

9300 Lee Highway Fairfax, VA 22031 1-(800) 423-1DOE or (423-1363) (703) 934-3069

Fax: (703) 934-3183

E-Mail: hotline@afdc.nrel.gov Web: http://www.afdc.doe.gov The National Alternative Fuels Hotline is sponsored by DOE to assist the general public and interested organizations in improving their understanding of alternative transportation fuels.

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. **136**

U.S. DEPARTMENT OF ENERGY NATIONAL ENERGY INFORMATION CENTER (NEIC)

Energy Information Administration 1000 Independence Avenue, S.W., EI-30, Room 1E-238 Washington, DC 20585

(202) 586-8800 Fax: (202) 586-0727

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

NEIC is the information dissemination service of DOE's Energy Information Administration, which is responsible for developing energy data, analyses, and forecasts that help enhance public understanding of energy issues.

Available free of charge is the *Energy INFOcard*, a quick reference providing the most recent annual domestic and international energy data; *Energy Education Resources: Kindergarten through 12th Grade*; and a series of primers on topical energy subjects: propane prices, residential heating oil prices, residential natural gas prices, gasoline prices, greenhouse gases, global climate change, and the restructuring of the electric power industry. All products are available on EIA's World Wide Web site, which also features the EIA Kid's Page (*www.eia.doe.gov/kids/*); hundreds of links to other energy-related sites; an E-Mail subscription and notification service for EIA press releases and a series of energy watches, synopses, summaries, and briefs; an energy quiz; an energy calendar listing schedules for future EIA publications and other energy events; and EIA publications and databases covering the various energy sources. **137**

U.S. DEPARTMENT OF ENERGY NATIONAL ENERGY TECHNOLOGY LABORATORY (NETL)

P.O. Box 10940

Pittsburgh, PA 15236-0940

(412) 386-5034 Franc(412) 386-488

Fax: (412) 386-4810

E-Mail: rjones@netl.doe.gov Web: http://www.netl.doe.gov

P.O. Box 880

Morgantown, WV 26507-0880

(304) 285-4348 Fax: (304) 285-4403

E-Mail: jcyzic@netl.doe.gov Web: http://www.netl.doe.gov

A Federal fossil energy research facility.

The National Energy Technology Laboratory is one of the U.S. Department of Energy's major field organizations. NETL has two sites – one in Pittsburgh, PA, and one in Morgantown, WV. NETL provides science-related educational kits, videos, and resource materials to local elementary schools. Check the above Web site for ordering information. NETL sponsors the West Virginia Regional Science Bowl and the Southwestern Pennsylvania Regional Science Bowl. Approximately ten science teachers spend four weeks at NETL learning about its research programs. The teachers, in cooperation with the NETL staff, prepare lesson plans describing the research for use in science classes. NETL sponsors two-day multidisciplinary seminars covering energy and the environment. Check the above Web site for dates and registration. NETL scientists and engineers serve as math/science resource volunteers, teacher consultants, classroom lecturers, demonstrators, or research advisors to teachers and students, 138

U.S. DEPARTMENT OF ENERGY NATIONAL RENEWABLE ENERGY LABORATORY (NREL)

Office of Education Programs 1617 Cole Boulevard, MS 1713 Golden, CO 80401 (303) 275-3044 or 275-3688

Fax: (303) 275-3076

E-Mail: linda lung@nrel.gov or matthew kuhn@nrel.gov

Web: http://www.nrel.gov/education

NREL is a Department of Energy national laboratory that develops renewable energy and energy efficiency technologies and practices; advances related science and engineering; and transfers knowledge and innovations to address the Nation's energy, security, and environmental goals.

NREL's Office of Education Programs develops and implements science programs that engage the young minds of our future leaders, scientists, and engineers to utilize and develop renewable energy resources. In addition, NREL's undergraduate internship programs connect research to science and technology teaching to inspire students to explore sustainable energy solutions to meet our future needs. NREL supports K-12 science education and undergraduate research focusing on energy efficiency and renewable energy, including managing and supporting numerous local and national science programs for both students and teachers. Programs include the middle school Junior Solar Sprint, middle and high school Science Bowls, an elementary after-school science literacy program, science teacher professional development, summer research programs for pre-service and practicing teachers, and assistance for students and teachers looking for information, project ideas, lessons, and reference materials on renewable energy and energy efficiency topics. 139

U.S. DEPARTMENT OF ENERGY OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT

Yucca Mountain Science Center 4101B Meadows Lane Las Vegas, NV 89107 702-295-1312 1 (800) 225-6972.

Fax: 1 (702) 295-5222

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

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

Furnishes an online curriculum, "Science, Society, and America's Nuclear Waste," at http://www.rw.doe.gov/progdocs/edresource/edresource.htm. The four-unit curriculum is designed for use in grades 8 through 12. Also available online is general information on the Civilian Radioactive Waste Management Program, including fact sheets and brochures. To forward a question, use "comments and questions" page at http://www.ymp.gov/learn/comments.htm. 140

U.S. DEPARTMENT OF ENERGY OFFICE OF NUCLEAR ENERGY, SCIENCE AND TECHNOLOGY

NE Public Information Office, NE-30 19901 Germantown Road Germantown, MD 20874 (301) 903-1536

Fax: (301) 903-7020

E-Mail: Nancy.Hebron-Isreal@hq.doe.gov

Web: http://nuclear.gov

Public Information Office for the Office of Nuclear Energy, Science and Technology. Responds to public inquiries about the commercial nuclear energy industry and DOE's nuclear research and development programs.

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* – both a student and teacher version for grades 7 through 9 – and several others. Also provides a booklet listing nuclear power plants, with operating data, and an educational videotape on nuclear power. All publications are free. **141**

U.S. DEPARTMENT OF ENERGY OFFICE OF SCIENTIFIC AND TECHNICAL INFORMATION (OSTI)

P.O. Box 62

Oak Ridge, TN 37831 (865) 576-8401

Fax: (865) 576-5728 Web: http://www.osti.gov

OSTI collects, preserves, and disseminates the scientific and technical information resulting from the Department of Energy's research and development activities, as well as environmental programs. The scientific and technical information produced through DOE and its predecessor agencies includes the bulk of recorded knowledge about nuclear energy and much about other forms of energy. OSTI also acquires domestic and international information through partnerships with U.S. agencies and over 126 countries and international organizations.

OSTI provides access to energy information primarily through online systems. EnergyFiles (www.osti.gov/EnergyFiles), the Energy Science and Technology Virtual Library, has over 500 databases and Web sites containing information and resources pertaining to science and technology of interest to the Department of Energy, with an emphasis on the physical sciences. The range of resources available include Subject Pathways, STI resources, and other tools. The DOE Information Bridge (www.osti.gov/bridge) provides access to over 70,000 fully searchable, full-text documents reporting the results of DOE-sponsored research. The Energy Citation Database (www.osti.gov/energycitations) offers bibliographic records of DOE scientific and technical information from 1948 to the present, with links to full text when available. The PrePrint Network (www.osti.gov/preprint) provides singlequery searches to over 10,000 Web sites containing manuscripts, papers, and other scientific documents in disciplines related to DOE. OSTI's entire line of electronic products may be accessed through its home page at www.osti.gov, where a new search option allows users to search multiple databases with one query. All of these systems are made available to the public at no charge to the end user. 142

U.S. DEPARTMENT OF ENERGY PACIFIC NORTHWEST NATIONAL LABORATORY (PNNL)

Science & Engineering Education (S.E.E.) P.O. Box 999, Mail Stop K9-83 Richland, WA 99352 (509) 375-2800

Fax: (509) 375-2576

Web: http://science-ed.pnl.gov/index.stm

A DOE-funded, multi-program national laboratory, Pacific Northwest National Laboratory puts science and technology to work to solve energy and environmental problems. PNNL focuses on research and development related to waste management, environmental restoration, global environmental change, energy, and national security.

Offers a variety of university and science programs that integrate research and education and support science education reform. Our education partnerships connect the human and technical resources of the Laboratory with students and teachers in elementary, middle, and high schools; technical/community colleges; and students and faculty at the university undergraduate and graduate levels.

Provides opportunities for students and faculty to:

- participate in hands-on science and technology research as it is conducted in a research laboratory;
- participate in projects that investigate scientific and technological challenges; update technical skills and understanding, as well as renew enthusiasm for chosen scientific or engineering research; and
- work with Laboratory scientists and engineers in an interdisciplinary team environment; and use state-of-the-art equipment not commonly found in most schools or colleges/ universities. 143

U.S. DEPARTMENT OF ENERGY WESTERN AREA POWER ADMINISTRATION (WAPA)

P.O. Box 281213 Lakewood, CO 80228 (720) 962-7423

Fax: (720) 962-7427

E-Mail: manion@wapa.gov Web: http://www.es.wapa.gov

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

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 Randy Manion, Manager, Non-Hydro Renewable Resource Program, (720) 962-7423 or e-mail manion@wapa.gov. 144

U.S. DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT (BLM)

Office of Environmental Education and Volunteers 1849 C Street, N.W. Washington, DC 20240 (202) 452-5078

Fax: (202) 452-5199

Web: http://www.blm.gov/education

An agency responsible for the management of 262 million acres of public lands. These resources include wildlife habitat, recreational

values, cultural and historic sites, scenic, and wilderness areas. BLM also manages the oil, gas, and minerals on an additional 300 million acres of subsurface land otherwise owned by other agencies or individuals.

Offers a variety of educational energy-related programs and materials. Contact the above Web site for programs available in your area, as well as educational products and presentations. **145**

U.S. DEPARTMENT OF THE INTERIOR MINERALS MANAGEMENT SERVICE (MMS)

Office of Public Affairs 1849 C Street, N.W. Washington, DC 20240

(202) 208-3985 Fax: (202) 208-3968

E-Mail: becky.phipps@mms.gov Web: http://www.mms.gov/mmskids/

MMS is the regulatory agency responsible for managing the Nation's oil, natural gas, sand, gravel, and other mineral resources on the Outer Continental Shelf, while balancing the need for the development of these resources with the protection of the coastal, marine, and human environments. MMS is also responsible for the collection and distribution of revenues over \$5 billion annually from leasing and production of mineral resources from the Outer Continental Shelf and onshore Federal and Indian lands.

Provides informational materials on gas, oil, mineral, and environmental resources in the ocean. Available materials include: color posters, brochures, fact sheets, statistical summaries, technical reports, newsletters, environmental studies, and professional papers. Most material is free upon request and/or available directly from the MMS Web site at www.mms.gov. Most information is suitable for upper grade levels. Public Affairs Offices in Washington, DC; New Orleans, LA; Denver, CO; Camarillo, CA; and Anchorage, AK, 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 topics. MMS professionals have worked with schools to develop their energy and environmental resources curricula. Comprehensive teacher's guides are available. Call or write to the above address or check out the MMS Web site Kids' Page for products available and ordering information. 146

U.S. DEPARTMENT OF THE INTERIOR OFFICE OF SURFACE MINING RECLAMATION & ENFORCEMENT (OSM)

1951 Constitution Avenue, N.W., SIB-262 Washington, DC 20240 (202) 208-2719

Fax: (202) 501-0549

E-Mail: getinfo@osmre.gov Web: http://www.osmre.gov

A regulatory agency responsible for protecting the environment during surface coal mining to insure the land is reclaimed afterward. OSM is also responsible for the reclamation of abandoned mine lands.

Provides materials on surface coal mining regulation and reclamation of active and abandoned coal mine land. OSM has an active program for presentation of award-winning reclamation sites, reforestation programs, and the Appalachian Clean Streams Initiative (ACSI). The ACSI program also sponsors summer interns to work local watershed projects. Ten college students working in five States throughout the Appalachian region pioneered the OSM's Summer Watershed Intern Program during the summer of 1999. Each intern was sponsored and hosted by a local watershed group working on acid mine drainage, the cause of the dead, orange-tinted streams in America's historic coal regions. Their stories are some of the remarkable products of a new OSM watershed assistance initiative aimed at helping local communities deal with one of the largest watershed environmental problems in Appalachia.

OSM signed Cooperative Agreements with each watershed nonprofit group, providing stipends and some expenses for the interns. OSM also set standards for interns and worked with each watershed group and each of the State coordinators for the OSM Clean Streams projects to define individual summer projects that would leave the watershed group stronger, the watershed cleaner, and the intern better educated. This program will continue in the upcoming years, including possible financial support from other agencies, such as EPA.

More local partnerships will be sought to assist watershed groups in recruiting candidates and working with these groups to make sure that the summer projects selected are the best that can be offered. By linking solid academic content, real watershed achievement, local leadership and participation, and multiple Federal agency support, the Summer Watershed Internship brings effective help to the groups that lead the fight to ensure that the orange streams of Appalachia are to run clean.

OSM also offers several videos on reclamation, summer interns, and the clean streams programs. Pamphlets, brochures, posters, book marks, fact sheets, and a teacher resource packet are available free of charge. They can be ordered through the above Web site, or the above e-mail, or by contacting OSM directly at the above phone number. 147

U.S. Environmental Protection Agency (EPA)

Headquarters Library, 3404T 1200 Pennsylvania Avenue, N.W. Washington, DC 20460 (202) 566-0556

Fax: (202) 566-0562

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

Web: http://www.epa.gov

The Headquarters Library provides research assistance to EPA staff. A limited amount of reference assistance is provided to the public about environmental issues and EPA programs. Members of the public are encouraged to submit their requests via e-mail to public-access@epa.gov. 148

U.S. GENERAL SERVICES ADMINISTRATION FEDERAL CONSUMER INFORMATION CENTER (FCIC)

1800 F Street, N.W., G 142 Washington, DC 20405 1 (800) fed-info

Fax: (202) 501-4281

E-Mail: karen.trebon@gsa.gov Web: http://www.pueblo.gsa.gov

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

The Federal Consumer Information Center offers the free quarterly *Consumer Information Catalog*, which contains listings of over 200 free and low-cost Federal consumer publications on topics such as health, energy conservation, Federal benefits, money management, housing, employment, small business, education, food and nutrition, and more. A free copy of the catalog is available by writing to Free Catalog, Pueblo, CO 81009. Bulk copies are available to schools and nonprofit groups able to distribute ten or more copies. On the above award-winning Web site, you can read, print out, or save the current *Catalog* and the full text of all the publications listed in it. You can

also find great information on a wide range of subjects you are interested in. Find out about the latest product recalls and scams on the Scams and Recalls pages. Additional features include updates of consumer news and notes from various Federal agencies, and a calendar of consumer-related events.

Also available from the Center is the 2002 Consumer Action Handbook (formerly the Consumer's Resource Handbook). The Handbook offers tips on topics such as buying and leasing cars, protecting your privacy and yourself from fraud, and shopping from home. Also includes a sample complaint form that you can use as a guide for your own letter, fax, or e-mail. The Handbook offers thousands of names, addresses, phone numbers, and e-mail addresses for Better Business Bureaus, corporate consumer contacts, and State, county, and city government consumer protection offices. You can access the Web edition of the Handbook instantly at the above Web site and use the links provided to register your complaint directly.

In addition, FCIC offers *Lista de publicaciones Federales en espanol Para El Consumidor*, which lists nearly 250 free Spanish publications available from various Federal agencies. **149**

VIDEODISCOVERY, INC.

1700 Westlake Avenue, North, Suite 600 Seattle, WA 98109-3012 1 (800) 548-3472 (206) 285-5400

Fax: (206) 285-9245 E-Mail: djclark@videodiscovery.com

Web: http://www.videodiscovery.com

Videodiscovery is a leading publisher and distributor of quality, innovative multimedia products for educators and students.

K-12 products are delivered on CD-ROMs and online with the Videodiscovery Digital Library (VDL). The VDL is a collection of 30,000 photos, graphics, and diagrams, plus 1,000 short video clips. The library includes presentation authoring and classroom assessment utilities. The whole system can be delivered from a central server or by using distributed school-based server appliances. Content areas include biology, chemistry, physics, earth science, and math. Interdisciplinary products such as Science Sleuths, Science Technology Society (STS) Forums, and Bioethics Forums apply science concepts in the context of social or scientific problems. Dramatized fictionalized scenarios engage students and provide a problem-solving model for approaching complex openended problems.

Videodiscovery is a leader in promoting Critical Reasoning and Inquiry for Solving Problems (CRISP) and provides a Computer Performance Based Assessment software for assessing these science process skills. The Videodiscovery Digital Library is purchased as an annual subscription. **150**

WATER ENVIRONMENT FEDERATION (WEF)

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

Fax: (703) 684-2492

E-Mail: PublicEducation@wef.org

Web: http://www.wef.org

Founded in 1928, the Water Environment Federation is a not-for-profit technical and educational organization with members from varied disciplines who work toward the WEF vision of preservation and enhancement of the global water environment. The WEF network includes more than 100,000 water quality professionals from 77 member associations in 31 countries.

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. **151**

WAVERLY LIGHT AND POWER

1002 Adams Parkway P.O. Box 329 Waverly, IA 50677 (319) 352-6251 Fax: (319) 352-6254

Web: http://www.waverlyia.com

A municipal utility serving electric needs of the community.

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. **152**

WESTINGHOUSE ELECTRIC COMPANY

Communications Department P.O. Box 355, Bay 575 Pittsburgh, PA 15230-0355 (412) 374-6803

Fax: (412) 374-3272

E-Mail: kendr1lm@westinghouse.com Web: http://www.westinghouse.com

A company dedicated to providing high-quality products, services, technology, systems, and management in nuclear energy.

Provides energy-related materials to all who are interested, especially to teachers and to students who will make our energy decisions in the future. One copy of each booklet is available free of charge. However, for larger 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 Westinghouse Electric Company. **153**

WISCONSIN PUBLIC SERVICE CORP. (WPSC)

700 North Adams Street P.O. Box 19001 Green Bay, WI 54307-9001 (920) 433-1002

Fax: (920) 433-5741

E-Mail: kpalmer@wpsr.com Web: http://www.wpsc.com

Provides electricity, natural gas, and energy products to more than 400,000 customers in an 11,000 square-mile area of Northeast Wisconsin and Upper Michigan. In addition to our corporate headquarters in Green Bay, we operate fossil, nuclear, and hydroelectric generating plants and have 19 customer centers throughout our service territory.

Provides a wide array of *free* energy-related presentations, publications, and Web links for kindergarten through grade 12 educators *in the WPSC service area*. The materials emphasize electric and gas safety, energy management, protecting the environment, and renewable energy. Some of the special features include teacher and student tours, scholarship information, career exploration opportunities, energy fairs, speaker's bureau, teacher workshops, and electric car demonstrations. Contact WPSC for a complete list of educational offerings. **154**

WOMEN IN MINING, INC. (WIM)

P.O. Box 260246 Lakewood, CO 80226-0246

(303) 298-1535

E-Mail: wim@womeninmining.org Web: http://www.womeninmining.org

A nonprofit organization dedicated to educating students, teachers, and the general public about the importance of minerals.

WIM's mission is accomplished through the distribution of hands-on classroom activities, games, and information, and hands-on activities training in workshops geared to teachers of grades 4 through 9. Distribution is accomplished through booths at meetings, direct mailings, the Internet, and workshops. A list of workshops that WIM conducts is on the Internet. Links to other earth science sites of interest to teachers are maintained on the Internet. Teaches who do not have Internet access can request free educational packets from the WIM Education Foundation by sending their requests on school letterhead indicating the grade(s) taught. **155**

XCEL ENERGY

Community Affairs 800 Nicollet Mall - 29 Minneapolis, MN 55402

(651) 748-3329 Electric Safety Demonstrations

(612) 215-4621 Energy Safety Calendars

1 (800) 880-8463 Nuclear Energy Speakers

(612) 330-5644 Renewables and Wind Energy Speakers

(612) 330-2955 K-6 grade Energy Curriculum

(303) 671-3806 Classroom Connection

Xcel Energy, Minneapolis (formerly Northern States Power Company and New Century Energy), is the fourth-largest combination electricity and natural gas energy company in the United States, operating in 12 States – Arizona, Colorado, Kansas, Michigan, Minnesota, New Mexico, North Dakota, Oklahoma, South Dakota, Texas, Wisconsin, and Wyoming.

Xcel Energy provides education services free to kindergarten through grade 6 educators *in the areas served by the former Northern States Power Company*. Offers include visits to two nuclear plant training centers and Minnesota's largest coal-fired plant; kindergarten through grade 6 energy and environmental education curriculum; and an energy safety calendar and poster contest. The Classroom Connection program for grades K-12 is available to educators located in the *former New Century Energy service territory*. **156**

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