

## Using the Energy Resource Guide for Virginia Website

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Energy is one of the *hottest* topics being discussed among Virginians. Whether it is the cost of fuel or how to reduce our consumption of an energy source, we are all searching for new ideas. Virginia Cooperative Extension searched for the best available web-based resources on energy and compiled a recommended list of various university, state and federal agency, and energy-related organization sites. The Energy Resource Guide for Virginia (<http://www.energyguide.ext.vt.edu/>) provides Virginia's households, farms, small business/industry employees, and middle school teachers and students with an electronic tool that allows them to review an array of energy information quickly.

### WattWise: Energy Efficient Homes

Begin your search of the guide with a review of *WattWise: Energy Efficient Homes*. Use Appalachian Power's home-energy estimator to project your energy-use costs, calculate the cost of operating home appliances, and discover how switching to compact fluorescent bulbs will save you money. There are numerous sites on how to purchase energy-efficient appliances, home office equipment, and heating and air-conditioning systems. Do you know what a home envelope is? Energy Star not only defines the envelope, but tells you how to seal it! Have you ever wondered if you save energy by turning off your heating or air-conditioning units when you are away from home? A review of the Home Energy Saver Answer Desk and the U.S. Department of Energy websites will answer your questions on home energy use.

### FarmWise: Agriculture Energy

Agricultural producers must consider alternative energy for their farms. *FarmWise: Agriculture Energy* provides you with references to the AgSTAR Program sponsored by the U.S. Environmental Protection Agency and the U.S. Department of Agriculture. The ATTRA, National Sustainable Agriculture Information Service's website, offers a discussion on anaerobic digestion of animal wastes. Also discover options for recovering beneficial products from dairy manure in the Dairy Waste Anaerobic Digestion Handbook. Websites for energy estimators will calculate estimates of diesel fuel use and costs in the production of key crops for your farm. Not only will you find information on alternative energy but also information on livestock production facilities, greenhouse operations, and wineries.

### TravelWise: Transforming Transportation

Transportation experts are developing alternative fuels and hybrid vehicles. Within *TravelWise: Transforming Transportation*, you will find a list of hybrid-car dealers, information on fuel performance, and an explanation of vehicle tax credits. The *Virginia Energy Savers Handbook* also offers tips for reducing transportation energy use and expenses.

### Business & Industry Energy Management

The *Business & Industry Energy Management* section of the guide includes the energy audit workbook and energy solutions database, significant tools in imple-

menting energy cost-saving solutions. Whether you utilize the resources from Alliance to Save Energy, Energy Information Administration, Energy Star, National Association of Manufacturers, Energy Services Tools developed by Washington State University, or the U.S. Department of Energy your company will expand its thinking on energy options. This section of the guide also links you to the Energy Policy Act of 2005.

## Renewable Energy

Renewable energy has everyone's attention. Those interested in biodiesel fuel can visit the National Biodiesel Board's website. Would you like to know what type of biomass will convert into valuable fuels or more about ethanol? Several sites related to this topic are listed within the *Renewable Energy* section. You also have access to information on hydrogen, hydro-power, methane, solar, and wind energy.

## Energy & the Middle School Student

Virginia's middle school students are responsible for understanding energy concepts as part of the Virginia Standards of Learning. The *Energy & the Middle School Student* section of the guide provides both students and teachers with resources to assist them in reaching this goal. Students will enjoy exploring the Energy Hog Challenge sponsored by Alliance to Save Energy and the Virginia Department of Mines, Minerals, and Energy. Educators will want to use the Alternative Fuels Data Center to find activities, curricula suggestions, and workbooks on fuels and vehicles. There also are new ideas for science projects, information about renewable energy, and even get instructions on how to build a renewable energy project.

## Partners

Virginia Cooperative Extension in partnership with Appalachian Power, the Virginia Department of Mines, Minerals and Energy, and the Virginia Maryland Delaware Association of Electric Cooperatives invites you to explore every website, gather the information you need, and implement your own activities to reduce energy consumption and expand your knowledge on energy options.

## References

Alliance to Save Energy, <http://www.ase.org/>.

American Council for an Energy-Efficient Economy: Consumer Guide to Home Energy Savings, <http://www.aceee.org/consumerguide/>.

American Council for an Energy-Efficient Economy: Consumer Guide to Home Energy Savings, Links to Energy-Efficient Products, <http://www.aceee.org/consumerguide/eprodlnk.htm>.

California Energy Commission: Energy in Agriculture Program, <http://www.energy.ca.gov/process/agriculture/>.

Energy Guide, <http://www.energyguide.com/>.

EnergyIdeas Clearinghouse, <http://www.energyideas.org/>.

EnergyIdeas Clearinghouse, Our Experts' Top Picks, Agricultural Efficiency, <http://www.energyideas.org/about/default.cfm?o=h,a,as&c=z,z,119%20>.

EnergyIdeas Clearinghouse, Energy Efficiency Fact-sheet, Residential Energy Efficiency Resources, <http://www.energyideas.org/documents/factsheets/residresources.pdf>.

Energy Information Administration, Official Energy Statistics from the U.S. Government, Households, Buildings, Industry & Vehicles, end-use energy consumption data & analyses, <http://www.eia.doe.gov/emeu/consumption/index.html>.

Energy Information Administration, Official Energy Statistics from the U.S. Government, <http://www.eia.doe.gov/>.

*Energy Savers: Tips on Saving Money & Energy at Home*, <http://www.nrel.gov/docs/fy01osti/28643.pdf>. U.S. Department of Energy, National Renewable Energy Laboratory, Washington, D.C.

Energy Star, <http://www.energystar.gov/>.

Environmental and Energy Study Institute, <http://www.eesi.org/>.

Environmental Law & Policy Center: Clean Energy, Farm Energy, <http://www.elpc.org/energy/farm/index.php>.

Fresh Energy, <http://www.fresh-energy.org/>.

Home Energy Online, <http://www.homeenergy.org/book-about.php>.

Home Energy Saver, <http://hes.lbl.gov/>.

The Leopold Center for Sustainable Agriculture: Food Miles and Food Pathways Reports, <http://www.leopold.iastate.edu/research/marketing.htm#miles>.

National Sustainable Resources in Agricultural Information Service (ATTRA), Farm Energy, <http://www.attra.org/energy.html>.

Natural Resources Conservation Service, <http://www.nrcs.usda.gov/>.

Oregon Department of Agriculture: Energy and agriculture, <http://egov.oregon.gov/ODA/energy.shtm>.

Resources for Agricultural Energy Efficiency, Commercial Contacts and Directories of Commercial Firms, <http://www.egr.msu.edu/age/MAEC/Resources%20for%20Agricultural%20Energy%20Efficiency.htm>.

*A Study of Increased Use of Renewable Energy Resources in Virginia*, [http://www.energy.vt.edu/Publications/Incr\\_Use\\_Renew\\_Energy\\_VA\\_rev1.pdf](http://www.energy.vt.edu/Publications/Incr_Use_Renew_Energy_VA_rev1.pdf). Virginia Center for Coal and Energy Research, Virginia Tech, Blacksburg, Va.

U.S. Department of Agriculture, Natural Resources and Environment, [http://www.usda.gov/wps/portal!ut/p/\\_s.7\\_0\\_A/7\\_0\\_IOB?navid=ENERGY&parentnav=NATURAL\\_RESOURCES&navtype=RT](http://www.usda.gov/wps/portal!ut/p/_s.7_0_A/7_0_IOB?navid=ENERGY&parentnav=NATURAL_RESOURCES&navtype=RT).

U.S. Department of Agriculture: Rural Development, Electric Programs Renewable Energy, <http://www.usda.gov/rus/electric/renewables/index.htm>.

U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, <http://www.eere.energy.gov/>.

U.S. Department of Energy, Energy Efficiency and Renewable Energy (EERE) Information Center, <http://hes.lbl.gov/hes/makingithappen/advice.html>.

U.S. Department of Energy, Energy Information Resources, Energy Education Resources: Kindergarten Through 12<sup>th</sup> Grade, <http://www.eia.doe.gov/bookshelf/eer/kiddietoc.html>.

U.S. Department of Energy, National Renewable Energy Laboratory, <http://www.nrel.gov/>.

University of Kentucky Cooperative Extension Service, Publications, Agricultural Engineering Energy Series, [http://www.bae.uky.edu/Publications/pubs\\_AEES.htm](http://www.bae.uky.edu/Publications/pubs_AEES.htm).

University of Minnesota, Bioproducts and Biosystems Engineering, Extension and Outreach, Agricultural and Alternative Energy, <http://www.bae.umn.edu/extens/energy/>.

Virginia Center for Coal and Energy Research, Virginia Tech, <http://www.energy.vt.edu/indexframe.html>.

Virginia Cooperative Extension, <http://www.ext.vt.edu>.

*The Virginia Energy Savers Handbook: A Guide for Saving Energy, Money, and the Environment*, <http://www.dmme.virginia.gov/de/residentframe.html>. Division of Energy, Virginia Department of Mines, Minerals and Energy, Richmond, Va.

Washington State University, WSU Energy Program, Energy Info, Finding the energy information you need, <http://www.energy.wsu.edu/site/info.cfm>.

Washington State University, WSU Energy Program, Publications, <http://www.energy.wsu.edu/pubs/>.

Washington State University, WSU Energy Program, Renewable Energy, <http://www.energy.wsu.edu/projects/renewables/agriculture.cfm>.

The Energy Resource Guide for Virginia website is reviewed and updated at regular intervals. Should you have recommendations for additional material, please e-mail [walker53@vt.edu](mailto:walker53@vt.edu).

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