

Wisconsin Energy Assistance and Conservation Resource Guide:

*Polk County
Renewable
Energy Committee*



UW
Extension
Cooperative Extension

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Wisconsin Home Energy Assistance Program

<http://www.homeenergyplus.wi.gov/>

Provides services to families in need, based on income, including:

- Emergency fuel assistance,
- Counseling for energy conservation and energy budgets,
- Pro-active co payment plans,
- Targeted outreach services,
- Emergency furnace repair and replacement
- Weatherization

Focus on Energy Assistance Program

<http://www.focusonenergy.com/Residential/Targeted-Home-Performance.aspx>

Provides support to those in need but in excess of income limits set by state programs. Improvements include:

- **Insulation.** Adding insulation to the attic, walls and crawlspaces helps reduce energy use and increase comfort.

- **Heating and cooling system updates.** Replacing an inefficient furnace, boiler and/or central air conditioner will save energy and reduce energy costs.
- **Sealing air leaks.** Sealing air leaks will reduce the cold drafts caused by unwanted holes in the home's structure and may improve indoor air quality.
- **Energy saving products.** Installing water-saving faucet aerators and shower heads, as well as ENERGY STAR[®] qualified compact fluorescent light bulbs (CFLs), saves energy.
- **ENERGY STAR qualified appliances.** Replacing old inefficient refrigerators and freezers with ENERGY STAR qualified models will use a fraction of the energy.

Public Service Commission-Consumer Information

<http://psc.wi.gov/consumerinfo/conservation/energyAsst.htm>

Describes laws which prevent utilities from cutting off power in winter and methods to negotiate payment where trouble paying bills occurs

ENERGY STAR

EPA Offers Resources to Improve Energy Efficiency and Save Money at Home

Did you know that a typical U.S. household spends about \$2,200 a year on energy bills? EPA's ENERGY STAR program offers a variety of tools and resources that can help utilities, state energy offices, local and tribal governments, and efficiency program sponsors educate consumers about how to reduce their energy bills through increased energy efficiency at home. ENERGY STAR tools and resources educate consumers about energy efficiency options—whether they are “do-it-yourselfers” or choose to hire a qualified professional.

- The Home Energy Yardstick tool allows homeowners to compare their energy use to others' across the country to help them decide whether to improve the efficiency of their home. Users can learn how their home stacks up at <http://www.energystar.gov/yardstick>. Utilities, state energy offices,

efficiency program sponsors, and others can embed the Yardstick into their own website by following the instructions at http://www.energystar.gov/ia/home_improvement/downloads/Home_Energy_Yardstick_Instruction.pdf

- The Guide to Energy Efficient Heating and Cooling gives homeowners in-depth recommendations that can help them save on their utility bills. Users can access the guide at <http://www.energystar.gov/hvacguide> to start saving.

- The Home Advisor tool helps homeowners get specific recommendations on home improvement projects to increase energy efficiency. Users can go to <http://www.energystar.gov/homeadvisor> for more information.

- In typical houses, about 20 percent of the air that moves through ducts is lost due to leaks, holes, and poor connections. ENERGY STAR's Duct Sealing Brochure helps homeowners improve duct performance in simple steps.

The brochure is available at <http://www.energystar.gov/homeimprovement>.

- The Heating and Cooling Quiz asks homeowners five basic questions about their HVAC system to see if it is being properly maintained. The quiz is available at <http://www.energystar.gov/homeimprovement> and can be hosted on your own website by following the instructions at:

www.energystar.gov/ia/home_improvement/downloads/Home_Energy_Yardstick_Instructions.pdf

- Home Performance with ENERGY STAR offers a new strategy to home improvement contracting that encourages whole-house energy improvements in existing homes that typically save homeowners 20 percent or more on their energy bills. The site is available at <http://www.energystar.gov/hpwessponsors>.

- The Do-It-Yourself Guide to Sealing and Insulating with ENERGY STAR offers homeowners step-by-step instructions for sealing common air leaks and adding insulation to the attic to improve energy efficiency and comfort. This guide is available at

<http://www.energystar.gov/homeimprovement>.

Hard copies of the brochures and guides listed above may be ordered at <http://www.energystar.gov/publications>.

State and local officials interested in additional information about developing and implementing cost-effective clean energy and environmental strategies that help further environmental and clean energy goals and achieve public health and economic benefits may visit:

<http://epa.gov/cleanenergy/energy-programs/state-and-local/index.html>

More Energy Efficiency and Conservation:

Renewable Energy Policy Project <http://www.repp.org/index.html>: links to policy, hydro, bioenergy, geothermal, wind, solar, hydrogen and energy efficiency information.

US DOE's Energy Information Administration

<http://tonto.eia.doe.gov/reports/reportsD.asp?type=Renewable>: reports on renewables.

American Council for an Energy Efficient Economy: A nonprofit promoting energy efficiency <http://aceee.org/index.htm>

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

Consortium for Energy Efficiency: Nonprofit. <http://www.cee1.org/>

Wisconsin and Minnesota Resources:

Bioenergy Forum <http://www.bioenergyforum.com/>: UW Extension and partners site announces events, hosts blog and discussion forum, links to projects, organizations, and news.

Dairyland Power Cooperative <http://www.dairynet.com>: wholesale energy generator and transmission cooperative using renewable energy sources for part of supply, Touchstone energy cooperative partner

Focus on Energy <http://www.focusonenergy.com/Default.aspx>: residential and commercial programs, financial incentives information, research reports links and information center.

Pierce-Pepin Cooperative Services www.piercepepin.com: Touchstone energy cooperative partner serving parts of Pierce, Pepin, St. Croix and Buffalo Counties, power provided by Dairyland, Evergreen Renewable Energy program available

Polk-Burnett <http://www.polk-burnett.org/index.html>: Touchstone energy cooperative partner serving Polk and Burnett Counties

St. Croix Electric <http://www.scecnet.net>: Touchstone energy cooperative partner serving St. Croix County

Xcel Energy <http://www.xcelenergy.com/XLWEB/CDA/>: Over 130 years of service, current renewable programs rank 5th in energy sales out of 500 utilities

Short Elliott Hendrickson Inc (SEH) <http://www.sehinc.com>: consulting firm of engineers, architects, planners and scientists serving the needs of local government, regional and state agencies, federal agencies, and industrial and private-sector clients

University of Wisconsin Cooperative Extension <http://www.uwex.edu/ces/>: extending the knowledge and resources of the University of Wisconsin to people where they live and work

Wisconsin Indianhead Technical College <http://www.witc.edu/>: Four campuses in northwestern Wisconsin, some offering courses and/or certifications in renewable energy fields

Other regional resources

Biomass Energy Resource Center <http://www.biomasscenter.org/>: link to [*Heating with Biomass: A Feasibility Study of Wisconsin Schools Heated with Wood*](#)

Energy Center of Wisconsin: Website links to newsletter, building performance programs, publications and and more. <http://www.ecw.org/>

Governor's Office of Energy Independence <http://power.wisconsin.gov/>: links to bioproducts, biofuels, energy statistics, news and events.

Great Lakes Biomass State-Regional Partnership
<http://www.cglg.org/biomass/index.asp>: program and collaborative information, link to state biomass managers (in WI: Cheryl Rezabek, Wisconsin Department of Administration, Division of Energy, 101 East Wilson Street, 6th Floor
P.O. Box 7868 Madison, WI 53707-7868. Ph: (608) 266-1067, Fax: (608) 267-6931,
E-mail: Cheryl.Rezabek@wisconsin.gov).

Milwaukee Biodiesel Co-op <http://www.mkebio.org/>: local supplier of biodiesel, offers workshops across Wisconsin (how to make your own biodiesel), and news links on biodiesel

Minnesota Biomass Exchange <http://www.mnbiomassexchange.org/>: linking biomass buyers and sellers

National Biodiesel Board <http://www.biodiesel.org/>: national trade association representing the *biodiesel* industry in the United States

US. Department of Energy's Energy Efficiency and Renewable Energy Program, State of Wisconsin Energy Program.
http://www.eere.energy.gov/state_energy_program/publications_by_state.cfm/state=WI

Wisconsin Energy Conservation Corporation: Innovative energy initiatives for business, government and consumers focused on energy savings programs. <http://www.weccusa.org/services.html>

Wisconsin Renewable Energy Summit, 2009:
<http://renewableenergysummit.org/2009Summit/tabid/72/Default.aspx>

WisconSun: Solar use network from the Energy Center of Wisconsin
<http://www.ecw.org/wisconsun/about/index.shtml>

Bioenergy:

Cellulosic ethanol- major projects piloting new technologies for producing ethanol from various woody materials

Range Fuel (woody biomass) <http://www.rangefuels.com/>
POET (corncoobs) <http://www.projectliberty.com/>
Iogen (straw, corn stover) <http://www.iogen.ca/>
BlueFire (wood waste, urban waste) <http://bluefireethanol.com/>
Flambeau Papers (paper mill waste) <http://www.flambeauriverpapers.com/>
Verenium (sugar cane waste) <http://www.verenium.com/cellulosic-ethanol.asp>

Bioenergy and renewable energy development incentive programs

Federal Tax incentives <http://www.energy.gov/taxbreaks.htm>

Wood Pellet Fuel

Bioenergy Feedstock Information Network Factsheets
<http://bioenergy.ornl.gov/main.aspx>

Manufacturing Fuel Pellets from Biomass, Pennsylvania State University, 2009
- Factsheet. <http://pubs.cas.psu.edu/FreePubs/pdfs/uc203.pdf>

Prairie Grass Pellet Energy Web site, Kansas State University, Web site has resource information on Prairie grass varieties, harvesting, pelleting, distribution, Combustion equipment, environmental benefits and impacts.
<http://www.engext.ksu.edu/biomass/default.htm>

Production of Grass Biomass in the Northeast, Jerry H. Cherney, Cornell University, Grass Energy Symposium, Shelburne, VT, 2008.
http://pss.uvm.edu/vtcrops/articles/EnergyCrops/ProductionofGrassBiomassintheNortheastVT_JerryCherney.pdf

Biomass Energy Center web site, Penn State University, Information on Biomass Production, conversion technologies, Sustainable biomass systems, workshops.
http://www.bioenergy.psu.edu/sustainable_bioenergy.asp

Biomass Energy, D.E. Buffington & T.O. Wilson, Penn State University, 2008.

Factsheet provides an overview of biomass including utilization, harvesting crop residues, characterization, properties, benefits, impacts on food supply.

<http://www.abe.psu.edu/extension/factsheets/h/H82.pdf>

Geothermal Heat Pumps

General information DOE/EERE

<http://www1.eere.energy.gov/geothermal/heatpumps.html>

Heat pump water heaters

http://www.energysavers.gov/your_home/water_heating/index.cfm/mytopic=12840

California Energy Center

http://www.consumerenergycenter.org/home/heating_cooling/geothermal.html

Energy Star heat pumps

http://www.energystar.gov/index.cfm?c=geo_heat.pr_geo_heat_pumps

Oak Ridge National Lab design

<http://www.ornl.gov/sci/btc/apps/hotwater.html>

Focus on Energy

http://www.focusonenergy.com/Residential/Efficient_Heating_and_Cooling/Geothermal_Heat_Pumps.aspx

Wisconsin Geothermal Association

http://www.wisgeo.org/index.php?option=com_content&view=frontpage&Itemid=1

Biomass (outside WI/MN):

Energy and Environmental Research Center (ND) Biomass Magazine

<http://www.biomassmagazine.com/>: biomass and biodiesel news and information

Global Biomass Network

<http://www.globalbiomassnetwork.com/DisplayPage.aspx?pageId=3>: includes links to directory, members, basic information, and video clips.

Union of Concerned Scientists

http://www.ucsusa.org/clean_energy/renewable_energy_basics/offmen-how-biomass-energy-works.html: biomass basics and benefits

State of Oregon

<http://tbabs.org/ENERGY/RENEW/Biomass/BiomassHome.shtml>: links to uses, technology, and projects

Pure Energy Systems <http://freeenergynews.com/Directory/Biomass/>: links to news, research, companies

Biomass Energy Foundation <http://www.biomassenergyfoundation.org/>: research group focused on alternative fuels

Woodgas <http://www.woodgas.com/>: biomass gasification process information, product, and book resources. Affiliated with Biomass Energy Foundation.

California Biomass Collaborative <http://biomass.ucdavis.edu/>: a government, industry, academic, and environmental partnership organization

Source Guides (biomass)

<http://energy.sourceguides.com/businesses/byP/biomass/biomass.shtml>: list of biomass related businesses around the world, searchable by country

USDA Rural Development

<http://www.rurdev.usda.gov/rbs/biomass/biomass.htm>: bioenergy program information

Jobs lists <http://www.biodiesel-jobs.com> and <http://www.ethanol-jobs.com>

Other renewable energy source resources:

American Solar Energy Society <http://www.ases.org/>: nonprofit with link to solar installers (<http://www.ases.org/aboutre/findsolar.htm>) and renewable resources directory (<https://secure.ases.org/cgi-bin/amms/view=AM075>).

Renewable Energy World <http://www.renewableenergyworld.com/rea/home>: renewable energy news site.

Geoexchange--Geothermal Heat Pump Consortium: link to find a local contractor plus installation tips for homeowners. <http://geoexchange.us/>

International Ground Source Heat Pump Association: link to find a local contractor, organization-sponsored installer training. <http://www.igshpa.okstate.edu/>

American Wind Energy Association <http://www.awea.org/>: news, events, publications, small (home-sized) turbine information, member directory/providers link available to nonmembers..

General:

Database of State Incentives for Renewable Energy <http://www.dsireusa.org/index.cfm?EE=1&RE=1>: maps, tables, search engine of government grant, incentive, and loan programs.

Association of State Energy Research and Technology Transfer Institutions: Includes “Digester Performance Partnership” program information. <http://www.aserti.org/>

World Business Council for Sustainable Development <http://www.wbcsd.org/templates/TemplateWBCSD5/layout.asp?MenuID=1>: “Publications and Reports” link includes “Biofuels” Issue Brief

Vendors:

Find listing of vendors and service providers:

<http://www.focusonenergy.com/Resources/>

<http://www.the-mrea.org/resources.php>