



Cabinet for Economic Development

Alternative Energy Resources in Kentucky

ALTERNATIVE ENERGY

Alternative energy is usable energy derived from renewable sources such as the Sun (solar energy), wind (wind power), rivers (hydroelectric power), hot springs (geothermal energy), tides (tidal power), and biomass (biofuels). These sources are environmentally responsible alternatives to fossil fuels. Since alternative energy comes from local resources that are continuously replenished, it creates jobs in rural America; provides stable energy prices; improves national security; and reduces urban smog and pollution.

The [Kentucky Renewable Energy Consortium](#) (formerly the Kentucky Rural Energy Consortium) is a clearinghouse, network and resource to exchange knowledge on renewable energy and energy efficiency activities of importance to Kentucky.

KREC works with industry, government, universities and Kentucky citizens to build public and private partnerships that promote the wise use of energy through research, as well as educational and demonstration programs throughout the state.

MARKET DEVELOPMENT

Kentucky is focusing on the development of state and nationwide markets for alternative energy sources such as:

Biomass

Generally, biomass holds the most promise for renewable energy in Kentucky. This would include (a) traditional agricultural crops and "energy crops" which could be turned into liquid transportation fuels and (b) woody biomass which could be burned/gasified to produce electricity (or liquid fuels).

Wind Generation

Wind energy and hydro power are probably next on the list for industrial-scale electricity. A national study once put Kentucky's total wind potential in the 60 MW range, but this would assume complete utilization of sensitive areas like state parks. Likewise, hydro has greater potential, but flow of water cannot be guaranteed to the developer. The Mother Ann Lee Hydroelectric Station at Lock & Dam 7 on the Kentucky River became the first Kentucky hydropower project to be certified as low impact.

Solar Energy

Solar and small-wind will see dramatic increases as "distributed generation" electric systems, grid-tied residential and commercial systems less than 50kW in size, but their contribution relative to total production will be small (0 - 10%). This may present a unique opportunity for job creation that is large relative to its energy potential.

Geothermal

Ground source heat exchange is a form of energy efficiency. Public schools in the state are recognizing the potential for ground source heat pumps. The larger universities use central plants which are not compatible with individual ground source systems.



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ALTERNATIVE ENERGY PROJECTS

Kentucky's pro-business climate provides a number of incentives for businesses. Through an array of financial assistance and tax credit programs, Kentucky is creating the right environment to bring together the right players to advance the way the world is becoming powered.

ETHANOL FACILITIES

Company	Capacity	Location	Status	Web Address
Comm. Agri-Energy	33 million	Hopkinsville	Active	http://commonwealthagrienergy.com
Parallel Environment Services Corp.	5 million	Louisville	Active	http://www.parallelproducts.com/

Proposed Projects

Agresti Biofuels	20 million	Pikeville	Late 2008	http://www.agrestibiofuels.com
Agri Fuels	50 million	Brandenburg	Late 2008	n/a
Bluegrass BioEnergy	55 million	Fulton Co.	Spring 2008	http://www.bluegrassbio.com
Ecofin, LLC	1.3 million	Springfield	Late 2007	http://www.alltech.com/en_US/Pages/games-home.aspx
For the People, LLC	50 million	Louisville	Late 2008	n/a

BIODIESEL FACILITIES

Company	Capacity	Location	Status	Web Address
Bluegrass Biodiesel	10 million	Falmouth	Active	http://bluegrass-biodiesel.com
Griffin Industries	2 million	Butler	Active	www.griffinind.com
Owensboro Grain	50 million	Owensboro	Active	http://www.kentuckycleanfuels.org
Southland Renewable Fuels	60 million	Paducah	Active	n/a

Landfill Gas – An “Enviro Watt” Renewable Energy Source - Kentucky Touchstone Energy Cooperatives have constructed five landfill gas to electric generation plants. The plants are the Bavarian Landfill near Walton, KY, Green Valley Landfill near Grayson, KY, the Laurel Ridge Landfill near London, Ky., the Pendleton County Landfill near Butler, KY and the Pearl Hollow Landfill near Elizabethtown, KY.

Tire-Derived Fuel (TDF) – Two companies in Kentucky use tire-derived fuel (made from waste tires). They are: Owensboro Municipal Utilities – www.omu.org and Newpage Fine Paper – <http://www.newpagecorp.com/wps/portal>

RESOURCES & PARTNERS

Kentucky has an increasing array of resources and partners to encourage alternative energy R&D and manufacturing, including:

- [The Governor’s Office of Energy Policy’s Division of Renewable Energy & Energy Efficiency](#)
- [University of Kentucky Renewable Energy Initiative](#)
- [Renewable Energy Projects at the University of Kentucky Center for Applied Energy Research](#)
- [Kentucky Rural Energy Consortium](#)
- [Kentucky Science & Engineering Foundation](#)
- [E.ON U.S.](#)
- [Kentucky Power](#)
- [Commonwealth Agri-Energy](#)
- [Alternative energy resources in Kentucky, U.S. Dept. of Energy](#)

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