

Green Power Factsheet

What is Green Power?

Green power is electricity that is produced from environmentally friendly (“green”) sources such as solar, wind, biomass, landfill gas (methane) and others. Green power is different from the power sources we currently use for two major reasons: it has fewer environmental impacts and it is considered renewable which means that we will not run out of these resources. Increasingly electric utilities in Georgia are offering consumers electricity produced from these environmentally friendly sources to minimize or eliminate some of the environmental impacts from electricity production. Georgia has several green power resources available.

Green Power Resources

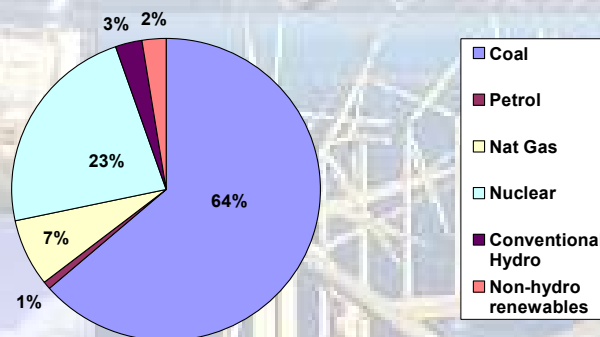
Generally, green power resources include those that are both clean and renewable. Green power can be produced by the sun, wind, and water (i.e. hydroelectricity, tidal and wave power) as well as biomass which generally includes wood, agricultural products and wastes and certain types of animal waste. More specific definitions of what is included in “green power” vary throughout the country. In Georgia, two formal definitions of green power exist. In 2001, the Georgia General Assembly included solar photovoltaic systems, fuel cells or wind turbines as eligible generators in the “The Georgia Cogeneration and Distributed Generation Act of 2001.” In its order approving Georgia Power’s Green Energy program, the Georgia Public Service Commission includes solar thermal electric or photovoltaic (PV) energy; wind power; hydroelectric resources certified by the Low Impact Hydropower Institute; landfill gas; certain types of biomass; digester gas from poultry waste; and sewage methane gas. All of these resources can be found in some measure in Georgia.

Why Buy Green Power?

In 2005, Georgians electricity was produced primarily by coal (64%), nuclear (23%), natural gas (7%), hydropower (3%). Non-hydro power renewable sources accounted for 2% of electric power sector generation fuel in 2005.

While the electricity produced from these fuels is important to Georgia’s economy, these sources have environmental impacts including air emissions (smog, fine particles, greenhouse gasses), water consumption and pollution (mercury & thermal loading) and land impacts from their extraction (mining). Electricity produced by green power sources reduces these impacts, however the technology that generates green power is often more expensive than the technology used to produce electricity from coal, for example.

Electric Power Sector Generation by Fuel Type 2005



Buying green power will reduce air and water pollution, advance developing green power industries and support energy independence.

How and Where Can I Buy Green Power in Georgia?

Currently, Georgia Power, the 31 electric membership cooperatives that participate in the GreenPower EMC network and College Park Power offer their customers a green power option.

Georgia Power offers the Green Energy program. Georgia Power customers can sign-up to buy green power in 100-kilowatt-hour blocks (about 10 percent of an average residential electricity bill). Each block will add \$4.50 (plus tax) to your monthly electricity bill. Residential customers may purchase as many blocks as they wish. Commercial and industrial customers can also participate with a minimum block purchase based on the amount of energy used as defined in the Green Energy Tariff approved by the



Georgia Public Service Commission. Customers must commit initially to purchase green energy for 12 months. Currently Georgia Power is using landfill gas (methane) from a DeKalb County landfill to supply the energy for the Green Energy program. For more information call Customer Service at 1.888.660.5890 (residential), 1.888.655.5888 (commercial) or sign-up online at www.georgiapower.com.

GreenPower EMC-affiliated programs allow residential and commercial customers to purchase “blocks” of green power (150 kWh, about 15% of an average customer’s bill). Prices range from \$3-5 per block depending on the participating electric membership cooperative (EMC). Residential customers may purchase as many blocks as they wish, commercial customers have certain minimum requirements. Currently GreenPower EMC utilizes landfill gas, hydroelectricity and solar energy to provide power for its program. Customers should contact their own EMC or GreenPower EMC at 770.270.6960 or www.greenpoweremc.org.

College Park, a municipal electric utility offers both residential and commercial customers wind and biomass green power for \$2.25 per 150 kWh block with no subscription required. College Park purchases out-of-state Green-E certified renewable energy credits (for more information on RECs, see below) for the wind and some of the biomass, and utilized Georgia-based landfill gas for the remainder of the biomass. For more information or to sign up, call Customer Service at 404.669.3759 or at www.collegeparkga.com.

Other Green Power Options

Renewable Energy Credits (“Green Tags”)

Renewable energy certificates (RECs) provide individuals and businesses an opportunity to support the development of renewable energy projects anywhere in the country (or in the world) regardless of whether they have access to renewable energy through their utility provider. Renewable energy projects are often more expensive to develop than conventional energy projects (such as a coal plant) but also have benefits that are not accounted for in the price of electricity. RECs allow consumers to place a financial value on these benefits. A certificate represents the benefits, including environmental, security and economic, that renewable energy resources have over conventional energy resources and provide consumers with a direct means to support these projects.

To ensure that consumers are provided with quality products, there are organizations that “certify” RECs to ensure that the energy is being produced according to specific criteria and that each REC is being sold only once. The Center for Resource Solutions and Environmental Resources Trust are two such organizations.

Self Generation and Net Metering

Net metering is the process whereby an energy consumer produces energy onsite (such as with a residential solar system) and then sells some or all of this energy to the “grid”, or major energy producers in the state. Under Georgia’s net metering laws, state residents and businesses can purchase and operate green energy equipment, including photovoltaic, wind energy and fuel cells, and use this energy on-site. These residents and businesses may then sell any un-used, additional energy produced on-site to their energy provider. There is a maximum of 10 kilowatts (kW) for residential applications and up to 100 kW for commercial applications.

For More Information

Georgia Environmental Facilities Authority: <http://www.gefa.org>

Georgia Power: <http://www.georgiapower.com>

Green Power EMC: <http://www.greenpoweremc.org>

College Park Power: <http://www.collegeparkga.com>

Green Power Network: <http://www.eere.energy.gov/greenpower>

Database of State Incentives for Renewable Energy (DSIRE): <http://www.dsireusa.org>

Center for Resource Solutions: <http://www.resource-solutions.org/index.htm>

Environmental Resources Trust: <http://www.ert.net/>

