



Your source for renewable energy information from Georgia Power

Georgia Power expands Green Energy program

Georgia Power recently expanded the Green Energy program to offer additional options for customers. In direct response to feedback from customers and environmental groups, the expansion redesigned the program to make

it more cost-effective while also providing additional discounted options for retail customers that are high-volume energy users.

Green Energy is regulated by the Georgia Public Service Commission and is Green-e Energy certified. Green-e Energy provides independent, third-party certification to ensure certified renewable energy meets strict environmental and consumer protection standards.

New and revised options include:

- Green Energy from biomass is available to residential customers in 100-kilowatt-hour blocks for a 12-month period (about 10 percent

of an average monthly residential electricity bill). Each block adds \$3.50 (plus tax) to your monthly electricity bill.

- Georgia Power also offers Green Energy that contains both biomass and at least 2 percent solar energy component at \$4.50 (plus tax) per block added to your monthly electricity bill.
- Business customers may also buy blocks of Green Energy at \$3.50 each (plus tax). The minimum number of blocks purchased will be based on the amount of energy the customer has historically used.
- A large volume purchase option is available to those customers who desire to purchase more than 400 blocks per month. After a customer purchases the minimum number of blocks for their rate class, they may purchase additional blocks at a greatly reduced price. This price is based on market conditions at the time of purchase.
- There is also a Special Event Purchase Option for certain onetime needs. A special event refers to an event that lasts no more than one week, with projected electricity usage in excess of 500 kilowatt-hours.

Green Energy is regulated by the Georgia Public Service Commission and is Green-e Energy certified. Green-e Energy provides independent, third-party certification to ensure certified renewable energy meets strict environmental and consumer protection standards. More than 175 companies throughout the United States participate in the certification program.

To learn more about Green Energy or to sign up for the program, visit www.georgiapower.com/greenenergy.

By participating in Georgia Power's Green Energy program, you continue to get the reliable energy you need while doing something positive about the environment. Your Green Energy choice will:

- Potentially reduce the environmental impact of energy production
- Conserve our natural resources
- Support domestic energy self-reliance



For more information about Georgia Power's Green Energy program, visit www.georgiapower.com/greenenergy.



Converting from coal to biomass

Georgia Power seeks PSC approval to convert Plant Mitchell to biomass fuel

In August, Georgia Power asked the Public Service Commission (PSC) for approval to convert coal-fueled Plant Mitchell Unit 3 into a renewable wood biomass facility.

If the conversion is approved, the Albany-area plant would become one of the largest wood biomass plants in the United States, capable of producing 96 megawatts of renewable energy — enough electricity to power 60,000 homes. This would mean lower emissions, and lower fuel and operating costs when compared to continued operation using coal, which means more cost-effective energy.

So, what is “wood biomass” and where does it come from? Basically, it’s wood chips created from waste products of logging operations, including tree tops, limbs, forest residue and trees that have been thinned out to allow others to grow.

For Plant Mitchell, this biomass would come from suppliers operating within an approximately 100-mile radius of the plant. There are eight million acres of forest and timberlands within that area, producing 12 million tons of woody biomass

fuel each year. After the conversion, Plant Mitchell would need about one million tons of this material annually. A new half-mile long road would be built from U.S. Highway 19 to the plant to handle the 160-180 trucks a day bringing in the wood.

“Georgia Power is taking an important step toward continued diversification of its fuel sources and making renewable energy more affordable for customers,” said Mike Garrett, Georgia Power president and CEO. “By converting Plant Mitchell to biomass, we hope to not only help grow the renewable resource base in Georgia, but also to expand the market for renewable energy credits, which ultimately will foster additional renewable energy development.”

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— Mike Garrett,
Georgia Power president and CEO

Renewable energy credits are created when a renewable energy facility generates electricity or uses renewable fuel.

The PSC is expected to rule on the proposal to convert Plant Mitchell to biomass by spring of 2009. Retrofit construction would begin by spring of 2011, and the biomass plant would likely begin operations in June 2012.

Winter Efficiency Tips

The cost of heating your home during the winter can really impact your budget. Follow these tips to stay warm and cozy without breaking the bank.

- Have your heating system professionally serviced before cold weather hits to ensure it is working as efficiently as possible.
- Set your thermostat at 68°F during the winter. You can expect a 3 to 5 percent increase in energy use for every degree you raise your thermostat. Also consider installing a programmable thermostat, which can manage your heat automatically.
- Change your filters once a month during heating season to ensure your systems are working effectively.
- Properly seal ductwork. Gaps in your ductwork can cause your heating bills to increase by as much as 30 percent and can allow air contaminants to enter your home. Sealing with duct mastic is the best way to fix the problem permanently.
- Check caulk and weatherstripping around doors and windows. If the caulk is cracked or the weatherstripping is flat or peeling, replace the old material. Seal other air leakage points around wiring, plumbing, attic access and fireplace flues. Use caulk for small holes and expanding foam for larger areas.

ASHRAE creates sustainable headquarters building in Atlanta

Georgia Power was among those recently recognized by the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) for its role in the innovative renovation of the organization's national headquarters building. The \$7.65 million renovation includes sustainable measures to reduce energy usage and water consumption, as well as a digital control system to monitor building performance.

ASHRAE's goal in renovating its existing headquarters was "to provide a healthy and productive environment for staff and to showcase ASHRAE technology, while demonstrating the Society's commitment to sustainability." The organization's goals also included building a learning center for on-site meetings and educational opportunities, and to create the building as a "living lab," which involves monitoring and metering building performance data.

Georgia Power helped ASHRAE achieve these goals with the donation of a solar electricity system that produces electricity during daylight hours. That energy is fed back into the electric grid. Georgia Power also donated a Rheem-Ruud Eclipse water heater, which has special insulation to reduce heat loss. Both innovations help lower building operating costs for ASHRAE.

"The contribution our company made to provide for the installation of a photovoltaic array on the roof of this building helps demonstrate to customers one of the technologies that can be used by those seeking to go well beyond the norm in energy efficiency," Chuck Huling, Georgia Power's vice president of Environmental Affairs, told a gathering of ASHRAE officials and others who partnered with them on the headquarters' renovation. "Installations like this and others we are involved with represent just a small part of what Georgia Power and Southern Company are doing to promote alternative energy."

The renovation project will also help other organizations and companies in the future, as the ASHRAE facility's energy efficiency is tracked and researched.

"Our Living Laboratory provides value to ASHRAE members and the industry by allowing for evaluation of the ongoing energy and operational performance of the building at a level that is unprecedented in current commercial buildings," said Bill Harrison, ASHRAE president. "The lab allows ASHRAE to contribute significantly to reducing energy use in buildings via future development of research and educational materials."

Just two-and-a-half months after moving back into the facility, ASHRAE has lowered energy consumption at the headquarters site by 21.6 percent to 25 percent. Solar generation from the photovoltaic modules has provided 3 percent of the facility's total energy needs. Annual projections include a more than 31.5 percent reduction in energy usage and a 52.3 percent reduction in water consumption.

To learn more about ASHRAE, visit www.ashrae.org.

To learn more about Georgia Power's alternative energy and energy efficiency efforts, visit www.georgiapower.com.

**20kW Photovoltaic
Renewal Energy System**
Honoring Nance Lovvorn, ASHRAE Fellow
Generously supported by
Georgia Power and Southern Co.



Georgia Power vehicles go idle-free

Did you know?

- Idling more than 10 seconds burns more fuel than it takes to restart your engine.
- An idling engine emits 20 times more pollution than one traveling 32 miles an hour.
- Unnecessary idling is not only bad for the environment, it also wastes money.

As part of Georgia Power's commitment to improving air quality, employees are participating in a voluntary effort to eliminate unnecessary idling while driving company vehicles.

"Decreasing unnecessary idling of our vehicles just



makes sense. It reduces the amount of fuel consumed and lessens the impact on our environment," said Holly Brown, Georgia Power fleet operations manager. "With the size of our fleet, this can translate into significant financial savings and considerable reductions in carbon dioxide emissions."

Even though the type of work done by some employees requires allowing trucks to idle, an analysis by the company's Fleet Operations group showed that Georgia Power could save \$1 million each year in fuel costs if unnecessary idling was reduced by just 30 minutes a day in heavy-duty trucks and light-duty vehicles.

In addition, idling causes twice the wear on internal engine parts compared to driving at regular speeds. Studies show that unnecessary idling can increase vehicle maintenance costs by almost \$2,000 per year and shorten the life of the engine.

This effort puts Georgia Power at the forefront of a no-idling movement that is gaining steam across the United States. California has passed an anti-idling resolution; other states, including Georgia, are considering it. Columbus, Ga., adopted a voluntary no-idling initiative, with area Georgia Power employees playing a key role in developing and implementing the city's policy.

While the no-idling effort is voluntary and applies to company vehicles, employees are encouraged to be idle-free in their personal vehicles as well.



Take the "Change the World, Start with ENERGY STAR®" pledge

It doesn't take much time or require a lot of energy! Taking the pledge is as simple as changing a light bulb, setting a programmable thermostat, making sure your home is well insulated or making other energy efficient lifestyle changes.

Georgia Power is proud to support the Environmental Protection Agency's (EPA's) national "Change the World, Start with ENERGY STAR" campaign, and is encouraging customers to take the "Change the World, Start with ENERGY STAR" pledge. To promote this year's campaign, Georgia Power will distribute more than 90,000 CFLs to customers across the state who visit a local office and take the pledge.

Since 2006, Georgia Power has inspired a total of 175,188 pledges, for an energy savings of 56,680,815 kilowatt hours and prevention of more than 85 million pounds of greenhouse gas emissions, according to the EPA. For its energy efficiency outreach efforts, Georgia Power received the 2007 and 2008 Excellence in ENERGY STAR Promotion Award from the EPA.

To learn more about energy efficiency or to take the ENERGY STAR pledge, visit www.georgiapower.com/energystar.

Save energy, save money and help protect the environment by taking the "Change the World, Start with ENERGY STAR" pledge.