Charleston County News Release

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See photos of solar panels: http://www.charlestoncounty.org/newsimages/solarpanels.htm

County Installs Solar Panels at Detention Center to Save Energy Costs
Charleston County obtained federal grant to help fund the system

Charleston County Government is providing leadership in the production of sustainable energy for the Tri-county area with the completion of a solar power system installed on the roof of the Sheriff Al Cannon Detention Center.

The $325,000 solar power system was installed using $259,271 from a Federal Grant provided through the South Carolina Energy Office and only $65,271 from the County.

"We are excited about the new system and how it can save us in energy costs in the long-term," said Dan Chandler, director of Charleston County's Facilities Department, which oversaw the project installation. "Power generated by the solar power system is fed directly into the building power system and used as it is produced to offset energy usage from the power company."

Because the power generated is fed directly into the power system, an energy storage system is not required, further reducing the effect on the environment, as batteries require replacement and disposal.

The system was installed as part of the Detention Center Expansion Project, with estimated savings of $888,372 over the 30-year life of the solar panels. Because the system is newly installed, data is not yet available to show immediate savings. The County is working with SCE&G to determine the current and projected savings impact on the utility bill.

Staff also has access to a website that allows them to monitor energy usage with real-time information, and the data will be analyzed over time. The initial data gathered through Wednesday, July 20, already shows the following positive results:

- Power production is maximized during the hottest times of the day, which is when power costs the most per kilowatt hour.
- The average production by the solar panel system so far is 174.6 kilowatts per day, or enough power to run six average-sized houses for a day.
- Since being installed, the solar panel system has produced over 14 megawatt hours of power. This amount of power is equivalent to what a car would produce if burning over 1,200 gallons of gasoline.
- The amount of carbon dioxide going into the atmosphere has been reduced by 17,710 pounds, which is equivalent to what 1,226 average trees remove from the atmosphere each year.

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