

Charlotte Solar Rooftop Program  
By Don Root, Economic Development Director

The Charlotte County Economic Development Office has established a goal of Charlotte County becoming prominent in the field of renewable energy. Currently, the County and Southwest Florida is becoming well known for three projects: the Florida Power & Light's (FP&L) 75 MW centralized solar generating station in Charlotte County, which supports the development of Babcock Ranch, a carbon-balanced city; FP&L's 25 MW centralized solar generation plant in DeSoto County, just north of Charlotte County; and the 2 MW centralized solar generating plant at Florida Gulf Coast University in Lee County, just south of Charlotte County.

All of these current programs are centralized generating stations which rely on transmission and distribution grids for the delivery of the electricity. The proposed Charlotte County Solar Rooftop program focuses on a decentralized solar energy approach. With this approach, individual households and businesses would generate their own energy from solar, thus putting the energy generation at the location of the energy demand. This model eliminates the significant losses encountered by the transmission of electric power over long distances.

In August of 2004, Hurricane Charley barreled through Charlotte County, slicing its way up the Peace River. Many homes and businesses were damaged as a result of the catastrophe. Out of this unfortunate incident comes a surprising benefit. Charlotte County now enjoys a disproportionate amount of new roofs and less tree shading than an average community in Florida making it a prime target for a project such as this.

In this program the County would issue Clean Renewable Energy Bonds (CREBs) to cover the costs of the solar energy system, engineering, installation and the management of the program. The bonds would be at or near 0% interest and would be secured by an assessment being placed against the property where the system is installed. The assessment would continue for the time period of the bonds, and would be tied to the property, not to the owner who originally signed up for the program.

The County has requested an allocation of \$20,000,000, which is sufficient to install solar energy systems on approximately 1500 homes. The systems would generate 3 to 5 kilowatts of energy with the system sizing depending on the demand of the household, the ability of the home to receive sunlight and the usage of other systems such as solar thermal for heating water. The inclusion of the lower cost solar thermal system will increase the number of homes that can be included in the program by lowering the overall cost of the system. Businesses will be included in the program and subject to the same qualifications as homeowners. The cost of the systems for individual households will range from \$12,000 to \$20,000 depending on size, and will include equipment and installation. For businesses the costs will be proportionately higher depending on demand. The systems will have a 25 year warranty, which is well beyond the term of the CREBs.

The ultimate goal for the County is to cover the equivalent of 10,000 households. The financing needed to reach this goal will require future allocations of CREBs. Critical to this program is the current tax credit offered by the federal government and the rebate offered by the State of Florida. For a \$20,000 system the federal tax credit to the homeowner would be \$6,000, and the rebate from the State would be \$12,000.

This program will help the Economic Development Office attract solar panel manufacturers and other related businesses to the area and create hundreds of jobs for local residents.