



New solar panels on the home of Josh and Sally Dickinson.

Let The Sunshine In

SOLAR POWER IS GROWING IN GAINESVILLE

BY ROB BRINKMAN

It used to be that if you wanted to put a solar electric generating or photovoltaic (PV) power system on your roof, you had to pay \$200 for the privilege of connecting into the GRU power grid. Now, that fee is gone, and GRU has a rebate—\$1.50 per watt of rated peak power of a PV system—for systems connected to their grid. Additionally all Floridians can apply for a \$4.00 per watt rebate

from the State for grid connected systems that have at least a 2,000 (2KW) peak watt rated power.

It gets even better: the Federal Government provides a 30 percent tax credit up to \$2,000 a year. This is not a deduction, but a credit that directly reduces the amount of taxes owed.

Taken together, this adds up to a significant subsidy for PV power systems, if you have the means to take advantage of the rebates and tax credits.

The results are appearing on roofs around Gainesville and other communities. One such PV system was installed on the roof of long-time Sierra Club activists Josh

and Sally Dickinson's home.

A Sunday morning brunch was held to show interested parties what a PV system looks like up close and personal. At least 50 people came out to hear Wayne Irwin, the proprietor of Pure Energy Solar, explain the system and its installation.

In recent years, the Dickinsons have spent up to 10 days without power after hurricanes. Because their home has a private well, that means no water. For them, having a battery back-up was essential.

The 16 heavy duty, deep cycle batteries, originally designed for locomotives, are capable of providing back-up power for three days with no appreciable sunshine.

Given reasonably sunny days the house is capable of supplying enough power for the most important loads for as long as necessary.

So far the Dickinson's system has generated a surplus of 1,067 kilowatt hours, or over a million watt-hours of solar energy, which was sent out into the GRU grid.

Net metering is when the utility credits,

see SOLAR, next page

SOLAR, from previous page

or buys, from homeowners the energy that solar PV systems supply to the grid. GRU currently pays a little over 7 cents a kilowatt hour. This is significantly less than what GRU charges its customers for electricity.

Some cities, like Tallahassee, pay the customer exactly what they charge customers or full retail. Ashland, Oregon, with a small municipal utility, recognizes that solar PV is worth more because it has much less environmental impact; consequently Ashland pays customers 125 percent of the full retail rate.

A local developer has approached Gainesville with plans to build an "energy neutral" subdivision; he would like to put solar PV systems on all 27 homes planned. The developer has found it difficult to explain to potential customers that when their system generates more power than the house is using, GRU will pay less than what they charge when the house is using utility power.

A utility customer with a grid-connected PV system makes power when the sun shines. This is often more than they need at that time, so power is sent to the utility. When they need power, such as at night,

they take power from the utility. In effect the utility is functioning as a battery for the customer's PV system, storing power until it is needed.

Grid connected systems are more efficient than off-grid PV systems that use batteries, because there is at least a 20 percent power loss to store electrical energy in batteries. The grid can be viewed as a battery with very small losses, unless the utility pays less than full retail for the PV power.

While it would seem reasonable for utilities to expect compensation for providing energy storage for PV systems, it must be remembered that unlike the fossil fuels used to generate most utility power, PV power is renewable and green.

To encourage more homeowners to install PV systems or to buy homes in energy neutral neighborhoods, paying full retail for PV power sold to the utility is a crucial element.

Someday, when most homes have PV systems, it may be necessary to revisit such a full retail price net metering policy, but that is exactly the kind of problem we need to have if we are going to transition to a renewable energy future.

Congratulations to Josh and Sally Dickinson and thanks for investing in our energy future by leading the way.

CORNER, from page 2

quiet, environmentally sensitive residential neighborhood.

The city brought the petition for a site plan approval to the Gainesville Development Review Board after more than six months of delay. It was a formal quasi-judicial hearing to approve Gainesville's proposal for the expansion. After several hours of presentations, public comments, questions and discussion, the DRB voted unanimously to deny the site plan approval.

This decision throws a roadblock into the city's plans; another attempt cannot be made for one year. It is hoped that Gainesville will find a more appropriate place for vehicle maintenance than next to Springstead Creek and the Stephen Foster neighborhood.

While the primary issue was noise, there was also evidence of significant impacts to Springstead Creek from previously leaking fuel tanks and inadequate stormwater facilities.

Both recent examples highlight the effectiveness of hard work and perseverance. Another benefit in both cases are the coalitions that formed, and the mutual support that occurred and hopefully will continue. SSJ and CRG have agreed to exchange liaisons and continue working together on issues of mutual concern.

Many Gainesville neighborhood associations are beginning to seek mutual support from each other of issues that are impacting them. I look forward to SSJ working with partners that share our concerns and to more successes in the future.

COAL OUT THE WINDOW?

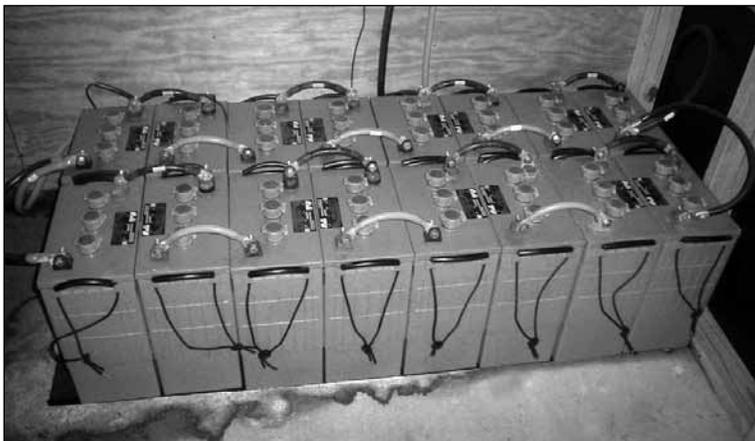
There is a new attitude in the Governor's office concerning the wisdom of building new coal power plants. Gov. Charlie Crist lauded the decision by the Public Service Commission to deny the needs determination certificate to allow construction of a two billion-watt capacity coal plant near the Everglades.

This has cast a shadow on the needs certificate for an 800 million-watt capacity coal plant in Taylor County; that decision by the PSC is still pending. Meanwhile, Tallahassee has now signed to power purchase agreements with two renewable biomass power plants. A small east coast municipal utility has sent out a request for proposal for renewable energy capacity only, and the City of Gainesville recently voted to send out a RFP for a biomass plant to fulfill its future energy needs (coal was discarded as a possible fuel).

The Florida Legislature earlier this year directed the PSC to hold hearings on and to propose a Renewable (energy) Portfolio Standard for Florida utilities. Almost half of the states have an adopted an RPS already, which mandates that by dates certain, such as 2025, utilities must produce a certain percentage of their energy from renewable sources, often 25 percent.

While recent developments are encouraging, there is still a long way to go to avoid the worst impacts of climate change. Our quality of life and the survival of many species depend on continued increases in our efforts to reduce emissions of green house gases.

There is plenty to do and something that everyone can do. I hope everyone will take some time this summer to develop a personal plan to reduce their energy usage.



Sixteen deep-cycle batteries for storage of energy generated by solar panels.