



Credit Union Case Study

The new Community First Credit Union branch now known as Magnify Credit Union, will be a carbon-neutral, net zero energy building (ZEB), a first commercial building like it in the state of Florida. Some of the energy conserving measures taken while building were increased wall and roof insulation, state-of-the-art insulated glass, large overhangs and sun shades, roofing material with a high solar reflectance, double-roof design for passive cooling, high efficiency HVAC system design and equipment, and automatically dimming fluorescent and compact fluorescent lighting reduce the building's energy demand 40% below average requirements of similar commercial structures.

Among one of the most important green, energy conserving measures done was the 60.25 kW roof-mounted photovoltaic (PV) array that, Solar-Ray, Inc. designed and was installed by DanBar Electrical. The system designed by Solar-Ray will use the solar panels to convert the sun's light into electricity to power the building.

It will be the largest non-residential system in Lakeland Electric's service area. The system is designed to produce 85,717 kWh per year, roughly 17% more than the building's estimated energy requirements, qualifying this Community First Credit Union branch as both a Source ZEB and Emissions (carbon) ZEB, as defined by the U.S. Department of Energy. According to the DOE's database that only lists seven in the country, this will be the first ZEB in the state of Florida.

To learn more about what Magnify Credit Union is doing to be "green" go to www.gogreenpolkcounty.com



Location: Lakeland, FL

*Date Installed:
December 2008*

*PV System Designer:
Solar-Ray, Inc.*

Contact: Michael Brown

System Size: 60.25kW

*Module: 309 ES195
Evergreen Modules*

*Inverter: 1 ST42 SMA, 1
SB5000US SMA, 1
SB3000US SMA, 3
SB6000*

*Overall Cost:
Undisclosed*

*Rebates/Incentives:
Qualified for Commercial
Florida State Rebate
\$100,000*

*Cost to Customer:
Undisclosed*

*Estimated kwh per year:
85,717 kWh*

*Estimated \$ Saved per
year: At today's rate of
electricity they save over
\$12,600 a year.*