



Large Scale Renewable Energy Comes to FLOYD!

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While most folks don't give a lot of thought to where their electricity comes from or how it is made, a lot of people in Floyd do. They look at the pollution created by burning coal, and the permanently destructive effect of mountaintop removal to get at that coal. They think about the effects of greenhouse gases on future generations. Energy conservation is nothing new to many Floydians, who have been using alternative energy sources for years.

So, when a Floyd county company needed to build a new office building, the owners decided it was NOT going to be business as usual:

Largest PV Array in the Region

Instead of just connecting to the electrical grid, the owners decided to generate a portion of their electricity by using Photovoltaic (PV) panels. And so the largest Photovoltaic (PV) array in the region is now generating clean, solar energy here in Floyd County. It is located on the roof of the new Wall Residence LLC Administrative Offices on Franklin Pike. The 15 Kilowatt (KW) system has eighty-two solar panels which are connected to 3 power inverters that convert the sun's rays into electricity which runs the facility's computers, servers, telephones, lighting and other electrical loads. This system produces about 10% of the power needed during normal business hours.

LEED (Leadership in Energy and Environmental Design) Gold Certified

The new office building is LEED Gold certified, another first for the County. LEED certification is only given to buildings that meet rigorous design criteria for energy savings and efficiency. An important part of meeting the LEED requirements was the inclusion of the massive solar array to generate electricity on-site. The focus was not only to reduce energy consumption by designing a very efficient building, but also to reduce greenhouse gases by generating electricity from a non-polluting source.

Reliable Power 24/7

Because the Wall Residence serves clients throughout the state of Virginia, having reliable power 24/7 was a priority. In most facilities, a noisy fossil fueled generator would be used to meet this need in the event of a power outage. But the Photovoltaic Contractor determined that a portion of the PV array could be connected to a battery bank to provide emergency power in lieu of using a polluting generator. The maintenance-free battery bank provides instantaneous power to keep the business running.

Long Term Efficiency & Low Maintenance

Because solar panels have no moving parts, they are extremely reliable and have long life spans. Most PV panel manufacturers guarantee the power output of their products for 25 years! There are PV systems that were installed in the 1970's and '80's that are still providing their owners with green energy. Typically, panels are encased in rigid aluminum frames and protected with tempered glass and they are actually quite rugged. PV panels require no maintenance. Unless the panels are located in an extremely dusty area, an occasional rain shower will clean ordinary debris off the surface.

Residential Applications

Photovoltaic Systems are not just for commercial buildings. Systems as small as 1KW are often used in residential applications to offset some or all of the electrical demand. PV arrays can be placed on roofs, pole mounts, or even used as awnings and sunshades if properly designed.

Future Generations

Perhaps the most important thing about a PV renewable energy system is that it does not introduce more carbon into the atmosphere. PV panels silently soak up the sun's rays and convert those photons into electricity to power homes and businesses. No smoke, no noise, just clean green power for us and for future generations!

Pick up a map at Hotel Floyd for directions to the new building site.