

The Next American Ideal

OneWorld Sustainable — A Paragon for
Supporting the Standard of Sustainability



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By Elizabeth McDonald

For renewable energy consultant Tim Blackwell, President and CEO of OneWorld Sustainable, sustainability is a guiding light and the motivating force behind his company's basic philosophy: "Sustainable living is an ideal. I do not see a point in time where we'll be able to say we are living 100% sustainably. However, we do have to approach that ideal and be committed to it. We have to adjust our direction and continue on a course toward that ideal. We have to promote development within our global community that is as sustainable as we can make it." Blackwell and his team at OneWorld are doing everything they can to provide local and international initiatives and the technology that supports this vision

and philosophy. "The technologies that support the philosophy and our vision are, without question solar energy, energy efficiency and, in broader terms, technology for sustainable living."

The result of an inspired set of thoughts that overcame Blackwell after the 9/11 tragedies, he began putting the concept for OneWorld together in late 2001. "At that time, I had also contacted the American Solar Energy Society in Colorado about forming a Georgia chapter as there was not one here at the time. They referred me to Keith Freeman in Savannah, who would go on to become OneWorld's Vice President and Chief Technical Officer. Together, Keith and I then began forming a Georgia chapter [of ASES]," says Blackwell. OneWorld was incorporated in June 2002. "It was a natural progression of a mutual interest and motivation," Blackwell adds. "Things have grown steadily ever since," he admits with a smile.

OneWorld works with builders and architects throughout the southeast, and is now considered a forerunner among energy consultants and system integrators. OneWorld provides a diverse selection of products and services including solar (PV), wind and micro-hydro energy generation systems, as well as energy-efficiency audits and green-building renovation for homes, businesses and institutions.

Blackwell relates that sustainability is more than just applying a science to projects. Builders and architects must look at the bigger picture and measure the environmental impact of a project in order to determine where the best efficiency can be implemented. OneWorld's approach begins with the consideration of budget and all that can be accomplished within that given set of parameters. Blackwell says that cost is a main component when applying energy saving systems to new construction or renovation. Supporting PV is a long list of pros including the production of no emissions (absolutely none), it can provide critical back-up power during outages, it

Bill Traver explains to Mel Laubscher of Haven Homes the results of the blower door test that he conducted on one of the homes in the Hunley Waters community.





Installation of a 25kW commercial grid-tied PV system in Savannah, GA.

makes logical sense where running power lines is cost-prohibitive and it can really be tailored to fit most budgets or electrical needs. Plus, under federal law, utilities must purchase any excess solar produced. However, initially, solar can be expensive. Approximate turnkey cost calculations for a 5,000-watt residential PV system will run about \$42,500, depending on mounting variables and system size. For a commercial application, the approximate cost for a 25,000-watt system would be about \$212,500, again depending on mounting variables and system size.

Realizing that not all budgets might accommodate a commitment as large as the ones mentioned above, Blackwell refers back to some of OneWorld's other capabilities and reiterates that it's all about taking what you have and making it as efficient as possible. He mentions team member and Energy Efficiency Manager Bill Traver. "We begin with an overview and evaluation, and one of Bill's crew will come in and test the house or building for its efficiency level. We return the findings and recommendations for green upgrades to make the structure as efficient as possible," Blackwell explains.

Traver, who has 26 years experience in the utility industry in Savannah, says that he wears many hats, but primarily focuses on helping builders and homeowners achieve maximum efficiency through airflow management. Whether it's through building practices in new construction or working to seal and caulk existing areas in a renovation, the goal of Traver's crew is to make efficiency work in every realm of a structure. "We test and retest to seal up areas that are losing air. That's such a big part of making a house efficient. It affects the comfort factor immensely by reducing humidity and keeping it low because we are eliminating unwanted air movement in and out of the house. You can't really put a price on comfort, but the result is a homeowner who is comfortable 100% of the time, regardless of the weather outside."

Michelle Conlon, Business Performance Manager for OneWorld,

spends a good bit of time evaluating internal processes and making suggestions for efficiency improvements within the workings of the company, thereby furthering the company's philosophy. According to Blackwell, Conlon "helps keep OneWorld operating as efficiently as possible. She is responsible for evaluating our processes and suggesting improvement — whether the process has to do with prospect lead to contract closure or system installation in the field (and anything in between)." Conlon also oversees OneWorld's Solar Water Heating (SWH) division to make clients aware of advances in SWH and how this system application can reduce utility charges, depending on system size and the client's hot water requirements. She says that most homeowners will see a payback on a SWH investment within five to seven years.

Conlon has been focused lately on the water crisis in Georgia and all that it implies for growth and building. "A lot of education still needs to happen with regard to SWH," she explains. "Solar water heating should be mandated in Georgia. Other countries and states realize its importance and offer great incentives for its application." While legislators work to get energy-efficiency regulations in place, Conlon says that builders and architects are the key to successful advances. "Hotels, hospitals, laundry mats and restaurants are implementing SWH systems. There have been big strides in water energy and we will continue to make significant gains with the aid of the right leadership. In the meantime, the opportunity is there

Students learn with a hands-on approach with OneWorld Solar Schools Program.





Keith Freeman makes the connection atop Laura and Rutherford Seydel's Eco Manor home.

on an individual level and builders and architects are doing their part and integrating efficiency into every project possible.”

In 2004, OneWorld was invited to Kenya for the purpose of developing trade linkages with small businesses located there. Upon arrival, Blackwell met solar business owner Henry Watitwa who quickly became their east Africa counterpart. Since that time, their partnership has installed solar energy systems for families, business owners, schools and clinics located throughout Kenya, Sudan and Tanzania. “A little bit of power from the sun can serve so many purposes and make such a profound impact on the lives of people in disconnected and marginalized communities,” Blackwell says. A very small solar energy system can provide lighting, TV or radio operation, or provide energy for vaccine refrigeration. “Our global community continues to get smaller by the day,” Blackwell says. “We are all interconnected. And while we have an economic and environmental responsibility to live sustainably closer to home, OneWorld considers it vitally important that we reach out to those in our global community who lack basic necessities.”

Making a large impact quite close to home, Blackwell is very proud of a project that started in 2003 and continues to grow. OneWorld received a \$20,000 grant from the state of Georgia and developed a Solar Schools pilot program for the Oglethorpe County High School system. Programs like this one are gaining popularity (there are hundreds nationwide) and usually involve the installation of PV solar energy systems that have been modified with data acquisition capabilities for educational purposes. “These students will be the founders of new technologies,” Blackwell explains. “With interactive teaching tools being used successfully to encourage interest in

a broad range of subjects, including physics, environmental science and social studies, many schools are using the program as a gateway into the larger realm of sustainability.”

Perhaps Keith Freeman, Vice President and CTO, best sums up the far and wide reach of OneWorld’s initiatives: “There is nowhere we will not go,” he says. “We concentrate on solar and energy efficiency and keep current in our technology, always reaching and learning and staying a step ahead of the curve. We all have a part to play in the solution to sustainable living — to reaching that ideal. It’s a challenging, but rewarding time to be alive. Our children will have an even greater role to play in the solution; they are the architects and builders of tomorrow.” ■



ONEWORLD SUSTAINABLE
Technology for sustainable living

Tim Blackwell

706.742.7760 | T.Blackwell@oneworldsustainable.com

Keith Freeman

912.236.1322 | k.freeman@oneworldsustainable.com
www.oneworldsustainable.com