

# An Introduction to Sustainability:

## Why conserving energy and being efficient makes sense



BY HELMUT KOHLER, JR.

*[Editor's Note: In 2010, the City received a grant funded by the U.S. Department of Energy for \$200,518. The primary task is to replace inefficient air conditioning and lighting in the Civic Center that has been in use since the building was built in 1966 and identify energy savings in City buildings. The City's share of this project is \$3,780. This is 1.9% of the total project cost. In its efforts to promote energy efficiency, the City requested that the grant award include funds to publish articles addressing energy efficiency in each issue of the Beachcaster while the work is under way.*

*Following is the first of that series of articles that will run until April 2012. As his introduction indicates, the author is well qualified for this task. It is our hope that these articles will provide residents and businesses with ideas and resources to help reduce energy consumption and, in so doing, save money.]*

Greetings residents and businesses of Satellite Beach! I am the City's new Energy Conservation and Efficiency Columnist. This position is part of a grant that the City was recently awarded to improve the energy efficiency of several municipal buildings. In addition to making these City facilities more environmentally friendly, they will also become more pleasant places to work and visit, and importantly, less costly to operate. The goal for my position is to let you know what energy conservation and efficiency is all about, and keep you up-to-date on the City's progress with its valuable work to improve its buildings. As work on those buildings progresses, you will be updated in future issues.

Before giving you some of my background, let me say that this is an honor and privilege to be working with the wonderful City of Satellite Beach. I am a junior at the Florida Institute of Technology, pursuing a Bachelors of Science degree in Interdisciplinary Science, with minors in Management and Sustainability. Before transferring to Florida Tech last year, I spent two years working for a construction company that specialized in energy efficient buildings and renovations. Whilst there, I became a project manager for energy operations, overseeing commercial building energy audits, retrofits, and ENERGY STAR ratings. I was also Project Manager for LEED (Leadership in Energy and Environmental Design) certifications. LEED is a rating system by the U.S. Green Building Council that verifies a facility's sustainability of design, and/or operations. In that role, I managed the certification of the first ever LEED Platinum-rated commercial building in the State of Idaho. I am currently also working with Florida Tech to develop a system for making their buildings LEED certified.

So, what is sustainability? The most commonly used definition for the Latin-derived term comes from the Brundtland Report of 1987: "[Being] sustainable... meets the

needs of the present without compromising the ability of future generations to meet their own needs." The practical application of that is simply, to not be wasteful or use more than is necessary. Conducting ourselves in a sustainable way means being efficient and conserving wherever possible.

There are many benefits to conserving energy and being efficient. The primary direct benefit is saving money. There is a very simple relation between energy conservation and savings: using less will cost less. There are cascading indirect benefits to doing so, as well. Our current primary energy sources come from burning fossil fuels, such as oil or coal. These sources are finite and limited, so they are heavily governed by the economic rules of supply and demand. Therefore, by reducing your usage and saving money on your utility bills, you are also reducing the demand for your energy fuel source. Once enough people do the same, this aggregate reduction in demand can lower prices or, at least, slow the rate at which price rates are going up on these increasingly scarce resources. This same reduction in demand and consumption will prolong the availability of the fuel source, thus offering more flexibility in the energy markets and allowing more time for suitable alternative and renewable fuel sources to be developed and propagated throughout the market.

There are also many common misconceptions about conservation and energy efficiency. The first is that it is difficult to do. Many of the most productive ways of conserving are simple things that we can do just by being conscientious. Things like turning off the water while brushing your teeth, or turning off the lights when you leave a room. There is also a notion that being efficient has to cost a lot of money, which is not true. In fact, many energy-conserving products cost the same or less than their traditional counterparts, like showerheads or toilet flush valves.

We will talk more about how you can conserve energy and make your home or business more efficient in a future edition of the *Beachcaster* and on the **City's website**.



Helmut Kohler (left) being presented with the ENERGY STAR award for a commercial building that achieved a perfect efficiency score of 100.

If saving money isn't enough, how about making money? The Space Coast has been hit hard by cut-backs at NASA's Kennedy Space Center, and with the impending end of the shuttle program later this year, the effects will be even more pronounced. However, there is hope for a rebirth of the job base in our area, if we can reinvent ourselves as a leader in energy technologies. After attending the annual Sustainability Conference at Florida Tech recently, I have witnessed great possibilities to capture this emerging market that has the potential to make significant positive impacts to our local economy.

There are some local organizations leading the way, such as the Space Coast Energy Consortium, which is made up of local business leaders and scholars for the purpose of promoting the utilization of the amazing human capital we have here with expertise from the space program. This organization is also working on attracting energy-related businesses to the region, which will benefit the local economy and job market. The Florida Solar Energy Center, which is a research institute of the University of Central Florida, is also located locally and is leading the way on development of plentiful solar power into usable, fiscally-viable energy that can be utilized on a widespread scale. They are also working with the City, auditing and making recommendations for

the retrofits as a part of the aforementioned energy grant. Right here in Satellite Beach, we have the clearest example of the economic benefit of energy efficient businesses. As you probably know, Lighting Science Group, a leader in ultra-efficient and eco-friendly LED lights, is based in our City. What you may not know is that LSG has multiple facilities here, including their international headquarters, research and development, engineering, and manufacturing facilities. This cutting-edge company is growing exponentially and currently employs over 450 people working multiple shifts to meet their ever-increasing demand. This innovative organization also holds well over 100 patents, with numerous more pending, and has projects in place around the world. They are constantly upgrading and expanding their facilities and, in so doing, employing more people, including those that are highly skilled and paid.



Workers at Lighting Science Group's bustling manufacturing facility right here in Satellite Beach.

As you can see, there is proof positive that acting in a responsible fashion, through energy efficiency and conservation, has tangible benefits. Additionally, we can use this strategy in our personal lives and in business. The benefits are there for all; we just have to be aware and then take action. Our City is doing so, our universities are doing so, and our businesses are doing so. Being sustainable can help sustain us and our community. Through working together and promoting best practices, we can all benefit from being energy efficient.

I welcome and encourage your inquires and feedback. If you wish to contact me, please send an email to: [energy@satellitebeach.org](mailto:energy@satellitebeach.org). For those people who do not have email, please contact City Hall at 773-4407 to leave a message and I will return your call.