

Follow Us:

Home | About Us | Contact Us | Events | Magazine | Special Reports | Register | Login

By Objective

By Sphere

By Solution

Safe | Clean | Efficient | Profitable | Compliant | Closed-Loop

Advertisement

Article | Comments (1)

# The Occupant's Role in Conserving Energy

By **Bill Holmes, P.E.** April 9, 2012 02:52:44 pm

Email | Print | Like 1 | Tweet 4 | 47

When I signed my first contract to manage the energy systems in a mental health hospital, it was 1979. The energy crisis had been around for about five years and most people were very aware and interested. Tremendous increases in utility costs in a very short time were threatening jobs as well as the very existence of some organizations. I had high hopes for something that made so much sense; save energy and money. Reduce the amount of money paid to the utility company each month, pay me a percentage of the actual, documented savings for creating them, and put the rest in the owner's pocket.

Like my partner John Rumble had said when we first talked about his getting involved with my business, "Do you realize what you have? You have a money machine. You are paying people to allow you to work in their building. You are taking 100% of the risk. They have everything to gain and nothing to lose. I don't know how any building owner or manager could say no to this." And John was a pretty sharp guy. An Indiana farm boy and Vietnam veteran, he had worked his way through Harvard Law School. He also had an MBA, with an emphasis on entrepreneurship from the Indiana University School of Business, and he owned a number of successful businesses. It made a lot of sense to us both at the time.

But I was really naïve, like so many people out there today who want to do what they think is the right thing; just clearly explain the opportunity and everyone will want to jump on the bandwagon, do their part. I had this impossible dream that others would be as interested as I was in conserving energy, saving money and perhaps even their jobs by making the building run as efficiently as possible.

I wasn't sure what the occupants could actually do but it sure seemed like a good idea to get them involved, to have their support. I wanted to do something similar to what the "Green Teams" are doing these days; to put together an Energy Conservation Team to work together to save energy in the building.

My only fee was a percentage of actual dollars saved. So I had to produce savings to stay in business. I have been asked more than once how I was able to do this; get others involved and trained to help me do what was necessary. The answer is, I didn't. I couldn't find a way. No matter how many meetings we had to explain what I was doing, no matter how interested the owners and occupants of buildings were, I essentially ended up doing everything myself (along with the employees I had by then).

Although I was only hired to be the building "energy manager," I discovered that to manage and reduce energy costs I had to assume the responsibility for, and control of, every significant energy user. I had to take over the control, the operation and the management of all of the maintenance. I could have everything working perfectly and efficiently one day and the next day find all kinds of expensive surprises. After many years of doing this in many buildings, I estimated that at least one-third of my time each day was spent undoing things that others did the day before that undermined the savings that had been achieved.

Servicemen would come in, use a jumper wire or bypass an automatic switch to turn something on to service it and then leave it that way. A janitor would get a complaint of a hot or cold room and adjust a control trying to solve the problem. I quickly learned that the most important function of the "Energy Team" was to recognize a problem or a potential problem and call me. When I read today about the Green Teams, I hope they can be organized and trained to be effective. I was always an outside contractor and had limited influence with the occupants of a facility. Even if the top management

## Sustainability Infographics



We here at Sustainable Plant love infographics. Aside from being easy to read and ingeniously designed, they are also incredible resources to have on hand, ready to share with others. With this in mind we've put together a collection some of our favorites from around the web. Check them out, pass them along and let us know if you have any other infographics you'd like us to share with the community. [View the gallery](#)

## Author Bio



**Bill Holmes, P.E.**  
**Bill Holmes, P.E.** founded Holmes Energy LLC [www.holmesenergy.com](http://www.holmesenergy.com) and developed the AutoPilot Monitoring-Based Commissioning (MBCx) System in 1979. He has a B.S. and M.S. in mechanical engineering and has done additional coursework and research for his PhD. He is a former Purdue professor and taught for several years in the Continuing Education in Energy Management Program at the University of Wisconsin.

Bill has produced savings from 20% to, in a few projects, more than 50% from low-cost, no-cost changes in management, operation, maintenance and control alone in all types of facilities including Industrial Plants owned by Fortune 500 Companies.

He is the recipient of a DOE Award for Energy Innovation and was the Indiana Energy

provided an incentive for the occupants to help me, which they normally didn't, I was on my own.

But remember, most of the energy in larger buildings is consumed in mechanical and electrical rooms. And most of the occupants have never even been in those rooms. They really shouldn't be. What can they do, anyway? Without thorough training and complete understanding of complex systems, you don't really want them messing with them. They could get hurt. They could really screw something up. It's not as easy as it is at home where most of us still manage to screw things up on a regular basis. It's not as easy as it might seem on the surface or as you might read in the paper.

I have read that a popular approach these days is for somebody, perhaps an energy manager, CSO or whatever fancy title they have, to have a comprehensive plan for everyone in the facility. What the occupants can and need to do and what they shouldn't. But let's be realistic here. If you have just hired a new brain surgeon or rocket scientist, you just want them to stick to their specialty. In an industrial plant only designated and trained people are allowed to operate the production equipment and other major systems. And that's a good thing. You don't want someone from accounting who had been reading all of the articles in the company newsletter about how it was every employee's job to save energy, after seeing the latest electric bill, decide to go out onto the factory floor and turn off a melting furnace right before a pour.

Utilities are basically just a pain, an overhead expense that no one really wants to deal with. Employees just need to be comfortable and for everything to work right so they can do their jobs and be productive. As wonderful as it sounds in theory for everyone to do their part to save the world, in practice, that doesn't really work very well. Sure, awareness can help and many people want to feel that they are involved, are contributing, but the energy manager needs to concentrate on the systems that actually use the energy and the people directly involved with those systems, the building operating and maintenance staff, outside contractors, control companies, etc. Plus there has to be a way to monitor all of the actions and the results on a continuing basis. You can't just do something once and assume it will stay that way; there are people involved. Energy management is a continuing process, not a onetime project.

My friends in various businesses tell me, and we all know it's true from personal experience, that with all of the cutbacks during the past several years, the people remaining are spread very thin. They may be working long hours doing what two or three people used to do in the past, and making less money. If another duty is added to their already too long list, they have to make choices, figure out how to set priorities and manage their time. They have a lot to do before they have a heart attack or go to work one morning and get escorted by a security guard to their desk to pick up their things after being downsized.

Unless the CEO moves energy conservation way up on their priority list, it may not get done, no matter how much they care. Like my good friend Tom Bonnell told me, when he was in charge of all energy conservation worldwide for a Fortune 500 company, when the right people with the right training and the right incentives disappear, so will the savings. And he knew from experience; he had watched his successful program, the one that he had put together working side-by-side with the very supportive long-time CEO, the energy conservation program that was generating tremendous savings every year completely disappeared after a new CEO came in and decided to get rid of all of the energy managers to save money. The new CEO decided that the energy manager's duties could just be added to those of the maintenance staff; a decision that cost the company a bundle.

I wonder what that new CEO would have thought if, the next time he boarded the corporate jet, he saw the guy who fueled it and drove the little tractor that pushed it out of the hanger take off his jumpsuit and climb into the pilot's seat to assume his new, added duty. Maybe the CEO wouldn't have noticed. He might have been lost in thinking about how much his bonuses and stock options were going to increase after firing all of those expensive pilots, as he was hurtling to his death.

**Relevant Tags**

buildings, career, conservation, skills, workforce,

**Add a comment**

You cannot post comments until you have logged in, and have an appropriate permission level. [Login here](#) or [register for a new account](#).

**Related Stories**

- Edna May Holmes, Conservation Pioneer
- The Energy Audit: A Sacred Cow of Energy Management
- America: Land of Opportunity, Land of the Consumer

Manager of the Year in 1990. He has published numerous papers and been making presentations on his projects and methods for more than 25 years. Bill is a sculptor, a writer and a regular contributor to Sustainable Plant.

RSS Author Articles

**The Most**

Most Recent      Most Read      Most Commented

- Nation's Largest Brewery Goes Landfill-Free 10/18/2013 12:10pm
- Infographic: The Dangers of Industrial Dust 10/18/2013 11:44am
- Compressed Air Systems: Friends or Foes of Sustainability? 10/18/2013 10:29am

**Green or Green Wash?**


**Manufacturer Designates Eco-Certification for Electrical Devices**

The company's Acme electrical devices meet criteria established by the company for its Eco-Certified designation. Demonstrating its commitment for a better, cleaner environment, a company has developed an eco-certification designation for a variety of its industrial products, including the company's entire line of Acme electrical devices. The company's Acme electrical devices meet criteria established by the company for its Eco-Certified designation: The devices have a positive impact on...

[Read More >>](#)  
[Add Your Comment >>](#)

**Swisscleanwater Group**

Just selecting and buying a water filter isn't enough, you also need to know the ways to maintain it so that you can enjoy great service from the Clean water...

 Author  
2/9/2013 @ 10:44pm

[Read More >>](#)

**Supporters Corner**

1 of 7



Emerson Rosemount  
Rosemount 708 Wireless

2 of 7



Rockwell Automation  
A Sustainable Approach to

