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How to Quickly Lose the Single Greatest Opportunity to Increase Profits

By **Bill Holmes, P.E.** January 20, 2012 04:07:19 pm[Email](#)[Print](#)[Like](#)

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I was in Madison for the week I taught each year in the University of Wisconsin's Continuing Education Program in Energy Management. The director, Charles Dorgan, had heard me give a presentation titled, "An Energy Management Program that Produced Immediate Costs Savings of 30-50% in Six Buildings," at an Energy Cost Avoidance in Educational Buildings Conference at the University of Michigan in Ann Arbor. After my talk, Chuck invited me to teach my methods in his program at UW.

Keith Kempiski ran the specific courses that I taught and he was my contact. Keith was about my age and had also been in the energy conservation field since the beginning. He was a very knowledgeable guy who coordinated the program, worked with the presenters and taught part of each course. I'm pretty sure he also consulted with actual building owners. He struck me as one of those former hippie types who could never break away from the university scene; someone I enjoyed spending time with. We always went out for a couple of beers and to swap information about the latest in the world of energy conservation. Along with drinking beer and eating in some of the great restaurants in Madison, I always tried to learn everything I could from Keith, the other presenters and students.

Some of the students were operating and maintaining industrial plants and other large facilities all over the world. No BS'ing those guys. They could tell the wheat from the chaff and they weren't there to waste their time; they wanted to learn things that would help them do their jobs better. Although it is something we have all heard, I had discovered for myself that you do actually learn more from teaching a course than the students do.

Energy Savings at Goodyear

One year, Keith introduced me to Al, the energy manager for Goodyear Tire and Rubber, worldwide. Yes, companies actually used to have energy managers back in the old days. It amuses me to read how the value of such a person is again being recognized. A fairly recent article in the New York Times noted an increasing trend among larger companies to hire a chief sustainability officer. Amazing! The discoveries that are being made. And the new titles, impressive!

Keith and Al and I were drinking a beer together when a group of four or five coeds came into the little bar and we did actually notice, so we weren't complete geeks. We may have even told one of our Thermodynamics jokes loudly trying to impress them, I'm not sure. Anyway, we were talking about what we did in the real world. I think Keith had actually spent some time in the real world before he returned to the university. Al said he worked directly for the CEO of Goodyear, who had identified energy savings as the single largest opportunity to increase Goodyear's profitability. We didn't get into a lot of detail; we may have been having a little trouble concentrating after a couple of beers in that environment. But I attended Al's talk the next day.

Al made three points that I have never forgotten. The first was the CEO's statement that energy savings were the single largest opportunity to increase Goodyear's profitability. At that particular time, their profits were 5 percent and their energy costs were 5 percent of their expenses. The CEO had told Al that reducing their utility costs by 20 percent, from percent to 4 percent, could essentially increase their profits by 20 percent. Think about that. He had asked, "Do you know how many more tires we would have to make and sell to increase our profits by 20 percent?" I don't remember the actual numbers, but a simplified analysis, assuming their annual income was a billion dollars, and their profit was 5 percent, the profit would be \$50 million and so would their energy costs. A 20 percent energy savings

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Author Bio

**Bill Holmes, P.E.**

Bill Holmes, P.E. founded Holmes Energy LLC 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

would be \$10 million. Since energy is a direct overhead expense that comes off of the bottom line, their profit would increase to \$60 million. That would be a lot of tires.

The second thing that has stuck in mind was the first thing they did, the thing that produced the greatest savings: they made every department pay their own utility costs. Obviously, that would have involved adding some type of an energy monitoring system or submetering to break out the individual costs, but it wasn't rocket science. I read the following in 1993 and it just seems like common sense: "Submetering added to apartment houses in New York City resulted in a 15-30 percent drop in consumption. It is simple enough, if you have to pay for something you will use it more carefully." (Peter H. Judd, Ph.D., Strategic Planning for Energy and the Environment, Vol. 13, No. 2, Fall 1993.) It had worked in apartments in New York and in Goodyear plants all over the world; there must be something to it.

The third point, which you may have missed; the most important one, was that AI was working directly for the CEO. The CEO was determined to reduce energy consumption and costs. Without that you have nothing. I don't care what nice things you read about how every employee will respond once you point out the opportunity for them to increase their profitability by cutting energy costs. After I had been in business for a few years I stopped doing audits, surveys or studies to see if I could determine if a facility had potential opportunities to save energy. I realized that every single facility had potential. I decided that there were only two criteria; number one was, is there support from the very top management? Number two, was the facility spending enough on utilities to justify our efforts?

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