Ready For The Post-Incandescent Plant? (Part II)

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The first installment of "Ready For The Post-Incandescent Plant?" [2] describes the Energy Independence and Security Act (EISA) of 2007 and its implications for manufacturers.

The Pay-Off

Just how quickly can a new lighting system pay itself off? Well, it depends on a number of variables unique to a given manufacturing facility, such as the need for a backend retrofit as opposed to a simple re-lamp. In simple terms, Callham says with CFLs most companies see a complete ROI in two or three years.

Other technologies, such as LEDs, could offer more substantial benefits, depending on how they're used. Callham says that one of the benefits of using LEDs, for example, is integrating them into other energy-saving systems, such as motion sensors that turn lights on only when a worker is present, or smart-dimming sensors that gauge the amount of natural light coming into the plant and shine only the necessary amount of artificial light, reducing electrical load to just a few watts.

And for those who doubt the efficacy of these lighting programs, it's important to note that lighting has long been the lowest-hanging fruit in "green" or sustainable facilities operations. The figures that Callham mentioned aren't just marketing-speak with a little fudging to make them more appealing, and the high efficiency of new lighting technologies is undeniable.

By upgrading to CFL, HID, or LED lighting technologies, manufacturers will generally protect themselves from the EISA mandates planned for the end of the decade. And if you ask Callham, it's a wonder that more companies haven't made these upgrades already. He says, “With lighting, when you calculate the utilities incentives to take some energy off the grid, you’re talking about paybacks of 50 percent. I defy anyone to find a 50 percent return somewhere else that isn’t related to their production.”

Manufacturers can receive additional benefits from not waiting in the form of savings from the power utility company. As mentioned before, one part of EISA is to reduce load on the nation’s electrical grid, and even though power utilities love those monthly payments, they do have something to gain in keeping loads to a minimum, especially during those warm summer months. Many utilities have incentive programs for companies who are able to reduce their needs due to investment in energy-efficient equipment. The environment can vary between states, counties, and even cities, so it’s best to check out a resource like *www.dsireusa.org* and search for a particular state.

For example, a manufacturer in Wisconsin (where *Manufacturing.net* is based), can be rebated $25 for each LED fixture purchased (up to 24), and can work with a Focus on Energy agent to get rebates as large as $500,000 based on energy efficiency investments. If the company doesn’t have the necessary capital to retrofit their plant, they can get loans up to $100,000 from the local utilities. Depending on one’s state, the oftentimes frightening initial investment can be partially offset by these incentives, and will certainly help the ROI reach parity as soon as possible.

What’s The Problem?

Many have resisted the EISA mandates on energy efficient lighting due to a restriction on choice in the marketplace. Some lawmakers, most recently Rep. Joe Barton (R-TX), have proposed repealing the original mandates, arguing that the government should not force its citizens to purchase more expensive bulbs when the $0.30 incandescent has served them well for more than a century.

In addition, many have spoken out about the potential dangers of CFLs, which contain mercury, a toxic chemical that could prove to be dangerous if a lamp is broken on the plant floor. Others have said that CFLs and LEDs aren’t capable of producing the kind of light temperature (that yellow glow, compared to white CFLs or LEDs) they desire.

Manufacturing.net, as a conduit between American manufacturers and the news that affects them most, has heard these arguments. In the past, our readers have been vocal about the desire for choice, even if it’s more expensive in the long-haul. Callham has heard these concerns, too. He says, “I think the resistance is to the mandate itself, not the financial benefit. I think when someone’s compelled to do something, they’re going to work against that mandate. That’s human nature.”

Oftentimes, it’s not easy to change one’s ways because a handful of people — which is what Congress is, for better or worse — decide what’s best for all of us. We think it’s great if people want to be vocal about their opinions, but in regulatory matters, it’s equally important to be prepared. January 1 is coming up quick, and even if Barton’s reversal makes its way through Congress, President Obama will almost certainly veto it.

In manufacturing, it’s critical to stay on top of the always-changing regulatory and technological battlefields, and based on the evidence, it seems that manufacturers have little to lose — and some to gain, even — in quickly renovating their facilities to comply with EISA. It’s rare that government regulation can push a business toward an investment with a positive, quick ROI. The traditional incandescent has done its job well, and we should be thanking it as we push it faster toward obsolescence.

Links:
[1] http://foodmanufacturing.files.wordpress.com/2011/12/joel1.jpg
[2] http://www.foodmanufacturing.com/scripts/ShowPR%7ERID%7E24002.asp