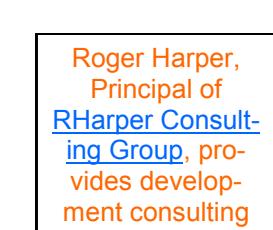


# RHarper Consulting Update

## Going Green? Try Going Only Skin Deep First



Many existing facilities are jumping on the "green," or "sustainable," bandwagon. It is a laudable goal, but many are being induced to make significant capital investments on items such as solar panels, co-generation plants, high efficiency air conditioning system replacements and other system additions, upgrades, and retrofits before they take an in-depth look at their current building systems and capitalize on the energy savings potential within the existing building. If your facility is over ten years old, examine your building's skin before you look anywhere else for energy savings.

The building envelope can be the greatest energy saver - or energy waster - of any of your building systems. Even if your building was state-of-the-art when it was built, I would bet that virtually nothing has been done to upgrade energy-saving components such as insulation, caulking, windows, doors, roofing, and flashing. Very few preventative maintenance programs adequately address the building envelope, and it is not uncommon to see energy losses of well over forty percent. So, where should you look first?

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**What did the manufacturer recommend?** - You wouldn't just guess at how often to lubricate the moving parts on your mechanical equipment, you would check the manufacturer's recommendations and generally follow them to the letter. Same thing for building envelope components – roofing, insulation, caulking, paint, windows, and other components all have specification information. If they are not with your as-built plans and specifications, do some internet research and find out. Maintaining these items in accordance with the manufacturers' recommendations is a huge and most effective initial step. It will take some time, and more money than you had hoped, but it will pay huge energy dividends.

**Before you overlay that roof, look underneath** - If you have roof that is nearing replacement, rather than just going with a least cost overlay, take a small section up, evaluate the insulation, and explore how you might increase the insulation value of that roof. The energy savings from increasing the R-value of the roof can be enormous, and will probably far surpass the savings from an Energy Star overlay. If you are considering solar panels, think long and hard about the condition and quality of the roofing materials underneath those panel systems, and what additional costs you will incur if you have to replace the roof after the panel system is installed. And please pay special attention to how the support systems for the panels penetrate your roof systems. Don't take the panel installer's word for it, get your roofing manufacturer or certified roofing installer to weigh in on how their system is being penetrated. Ask whether their warranties will still be good after the panels are installed.

**Stop the Leaks** - Do you have a schedule for re-caulking around exterior doors and windows, or is it done only when you find a leak? There are a number of new technologies for identifying energy leaks - infrared cameras, moisture meters, and well trained technicians can spot and fix small leaks before they turn into large problems and energy wast-ers.

**Interior Air Quality** - A periodic assessment of interior air quality by a qualified technician should be part of your preventative maintenance program as well. Whether you know it or not, your facility has a significant responsibility to provide a habitable unit, and the interior air quality is a significant component of that responsibility. The lack of a documented assessment and maintenance program leaves your facility defenseless in the event of a lawsuit by your residents. It is easy, and relatively inexpensive, to implement a program to measure and periodically monitor interior air quality, as well as to develop clean-up and restoration procedures in the event of moisture leaks and microbial growth.

These are just a few areas to consider as you lead your facility towards a "greener" path. We all have finite budgets with infinite demands, and it is currently trendy and chic be the "first on your block" with the newest and coolest "green" system. However, if you really want to be a hero, first find ways to upgrade and maintain your building envelope; then, as new systems are added, they will really pay dividends.

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*RHarper Consulting Group provides development consulting, program management, and owner representation services focused on the senior living and mixed use sectors.*

*In addition, Mr. Harper is also a listed mediator and arbitrator providing dispute resolution services for the construction and real estate industries.*

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