Green Savers Project Report

Auditing Business Opportunity
This ISEN has provided us an opportunity to learn more about energy auditing in order to create an energy auditing business. Much was gained from the experience.

BPI Training
ISEN funded my training as a professional energy auditor with a Building Performance Institute (BPI) accredited course as a Building Analyst taken with Green Dream Group LLC.¹ The course was six days and covered many aspects of auditing and the industry’s standards, in addition to attending a professional audit. The BPI training provided a great base of knowledge on energy auditing as well as legitimacy in future energy auditing work.

GRIN
GRIN (GReen-It-Now) is a project in ESW (Engineers for a Sustainable World), with students performing audits on the Northwestern Campus, and Evanston. Audits have been done free of charge, with the purpose of creating a greener community by reducing energy use and carbon emission, as well as educating students on energy efficiency.

With student auditors, we looked into the possibility of performing audits around the Evanston community as part of an energy-auditing business. GRIN members are enthusiastic about auditing, and would be more cost-effective than hiring full-time auditors. We saw an opportunity in creating ground in a relatively new industry.

Paid audits were considered, however was ultimately deemed illogical for implementation. All GRIN members are full-time McCormick students, and the time required for a complete BPI education, visiting homes to conduct audits, and writing audit reports were a definite constraint. Gaining business in the auditing industry is also dependent on experience, reputation, marketing, and also gaining relationships with retrofitting contractors, and as a student group GRIN would fall short on many of these resources.

This past quarter GRIN conducted four audits on Greek Houses. GRIN’s current focus are ECM’s (energy conservation Measures), that not only have the best payback times, but would be the easiest to implement (hence the name Green-It-Now). Some of the education gained during BPI training was applicable to our audits, such as suggesting radiator reflectors, and sealing up leaks in the building envelope. However, two of the main recommendations of a BPI audit - insulation, and HVAC (heating ventilation and air conditioning) systems - are much more difficult to implement. They require extensive tests during audits (which requires expensive equipment), and upgrading insulation or HVAC systems are a lot more costly to implement. Adding requisite insulation saves a great deal of energy, but have payback times of 15-30 years, and suggesting changes to the building envelope and HVAC systems have many safety standards that need to be considered. However, the BPI training added a great deal of value in understanding building sciences, and measures used in energy auditing, and is a great deal of help to GRIN. This quarter, GRIN is looking to audit restaurants in Evanston.

¹ http://www.buildingperformanceworkshop.com/