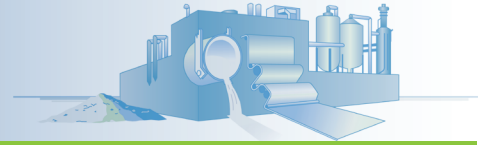


Industrial Assessment Centers Alumni Case Study



Eric Ruffel, Colorado State University

IAC Roots

Eric Ruffel remembers first hearing about the IAC program when he was a second-year student at Colorado State University. Eric's engineering professor, and CSU's IAC Director, Dr. Harry Edwards, had mentioned the IAC program, inspiring Eric to become involved. Three years after graduating in 2001, the IAC program continues to affect his career as well as his clients' ability to save energy and provide millions of dollars per year to their collective bottom lines. "I was hired mostly because of my IAC experience and I still use that experience on a fairly regular basis," Eric reports.

One of Eric's most memorable site visits was the Alcoa aluminum extrusion plant at Spanish Fork, Utah, during a plant-wide energy assessment. The goal was to identify, evaluate, and recommend the most attractive opportunities to cost-effectively conserve energy, prevent pollution, and increase productivity at the facility, while reducing production costs and increasing profits. The total annual cost savings resulting from implementing the assessment recommendations is estimated to be \$843,000 with a total implementation cost of less than \$393,000. The payback period should be approximately six months. The project was highlighted in an ITP Showcase Demonstration and received considerable attention from the press (see the full story on the IAC assessment at Alcoa's Spanish Fork facility at http://www.oit.doe.gov/bestpractices/factsheets/spanish_fork.pdf).

Eric credits the IAC program with helping him to focus academically and land summer internships, and ultimately, for attaining the exact job he wanted at a time when many of his classmates were finding it difficult to land work of any kind. He found that his grades actually went up when he took on the extra burden of holding down a part-time job with the IAC. "During the downturn of 2001, I had four competing offers upon graduation, which was very unusual during that time. I considered myself very fortunate and credit the IAC program for much of my success." Eric highly recommends the IAC program to students majoring in any engineering discipline.

Career Highlights

As a candidate for an engineering internship with URS Corporation, it was his IAC experience that really set Eric apart. He believes that working on more than 40 industrial site assessments during his three-year tenure in the program afforded him breadth and depth of experience few other first-year employees could match. The IAC allowed him to bring value and practical knowledge to his new employer immediately upon being hired.

Eric now holds a permanent position with URS Corporation, a Fortune 1000 consulting/engineering firm ranked first on Engineering News-Record's list of top 500 design firms. "I am part of a relatively small group based out of Denver that focuses



Eric Ruffel, an IAC alum, applies his IAC experience as a member of the Energy Management Services team for URS Corp., located in Denver, CO.



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on providing energy management services for both the private and public sectors,” he states. “We basically act as an extension of staff in most cases, similar to an owner’s representative in the construction industry. In the case of ESPC (Energy Savings Performance Contracts) projects we will help the client manage the ESCO (Energy Services Company) from opportunity identification, to pricing/financing, to third-party verification of the M&V (measurement and verification) program. On the supply side of utilities, I’ve also had the opportunity to assist clients in electricity and natural gas contract negotiations and evaluate options for distributed generation. Overall, I feel very fortunate to have been involved in the number and variety of projects that I have seen to date.”

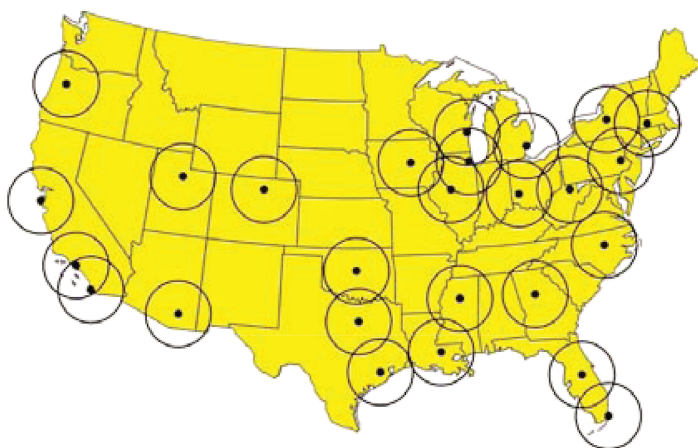
At URS Eric has been involved in a wide variety of challenging assignments. His primary role is helping clients evaluate and implement energy management projects and programs. One of his more interesting projects was a study evaluating distributed generation (DG) alternatives for the Department of Defense (DoD). URS was able to help DoD prioritize among competing alternative site locations for prospective DG projects. Eric has also participated in work for the U.S. Coast Guard, providing third-party review of ESPC projects in verifying energy and cost savings. Eric’s team has also helped commercial clients negotiate favorable rates on natural gas and electricity contracts, in one case helping to leverage \$20 million in energy procurement. Additionally, he and his team have conducted preliminary evaluations of procurement opportunities for more than \$4 million in annual natural gas load for the U.S. Postal Service.

Visits to client facilities by Eric and his group have resulted in recommendations to save more than \$2 million dollars per year in energy. The team’s work in planning and implementing demand-side management (DSM) projects includes more than \$1 million in savings projects underway and nearly \$3 million more in annual savings for projects in the planning stages.

Focused on the Future

Even with his wealth of experience and know-how, Eric is not resting on his laurels. His IAC training taught him to never stop learning, and he is eager to stay on the cutting edge of developments in the energy conservation arena. He earned the Certified Energy Manager (CEM) designation only six months after graduation—a process that usually takes about three years—and subsequently received the Leadership in Energy and Environmental Design (LEED) Accredited Professional designation. Eric is only one year away from completing his MBA/MS in Finance from the University of Colorado—Denver and he is planning to sit for the PE exam this fall, one year ahead of schedule. The accelerated timetable is due largely to the State of Colorado’s acceptance of IAC training as equivalent to a year of on-the-job training.

Industrial Assessment Center Locations 2001-2005



For Additional Information, Please Contact:

URS Energy Management Services

www.urscorp.com/ems/index.html

Industrial Assessment Centers

Student Forum Website

www.iacforum.org

EERE Information Center

1-877-EERE-INF (1-877-337-3463)

www.eere.energy.gov

Industrial Technologies Program Energy Efficiency and Renewable Energy

U.S. Department of Energy

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www.eere.energy.gov/industry/

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