Tony Simon, University of Washington IAC Alumni

Tony Simon, an alumnus from the University of Washington was studying electrical engineering when he joined the IAC. During his time with the IAC he was team leader and participated in over 32 assessments.

"During my time in the IAC, my team identified many, energy saving measures." Tony said. He goes on to say, "it was always rewarding if the plant could implement these recommendations and save money."

Tony Simon, IAC alumnus from the University of Washington, now an Energy Systems Engineer with the Washington State University Energy Program

Courtesy of Washington State University Energy Program

IAC Roots

Tony Simon was working on a Bachelor of Science in electrical engineering at the University of Washington (UW) when he joined the Industrial Assessment Center (IAC). At the IAC, he participated in more than 32 assessments and served as Lead Student on many of these. Tony augmented his engineering education with course work in entrepreneurship at the UW Foster School of Business, which he says helped him more effectively manage the IAC team in his role as a team leader.

> "In addition to his technical talent, Tony came well prepared to join the WSU Energy Program team with the right skills to work successfully with a variety of people."
>
> *–Jake Fey,*
> *Director, WSU Energy Program*

While at UW, Tony leveraged his technical expertise and business acumen and joined forces with fellow IAC alumni Brian Pepin and UW MBA student Mark Ramme to start an industrial sensors company called Energizing Solutions.

Among the assessments Tony participated in while at the IAC, a few stand out, including one of his first at an aluminum soda can plant. During this assessment, the team scrutinized one of the plant's equipment cooling systems. Many of the larger pieces of equipment were using a circulating water loop to keep equipment from overheating. "The system worked very well, however, the cooling tower on the roof of the plant was evaporating an exorbitant amount of water. For every unit of water the plant purchased, they paid two fees: one for the water supplied and another to discharge the water to the sewer.

With the cooling system, a considerable amount of water evaporated so it never reached the drain, so this was an opportunity to save money."

The team recommended that the plant meter the volume of water being evaporated and have it deducted from the sewer charges. Tony notes, "This was significant because the discharge fees were four or five time higher than the supply fees." The team's recommendation is saving the plant tens of thousands of dollars each year.

Some of the biggest challenges Tony faced in his IAC assessments were linked to the economy. "During the recession, many of the plants we visited were reluctant to make capital improvements. This is why we always emphasized low-cost/no-cost measures." He notes with pride, "During my time with the IAC my team identified many energy-saving measures. It was always rewarding if the plant could implement these recommendations and save money."

Tony Simon, WSU Energy Program Engineer, and Dick McManus, IAC lead student, inspect a hydraulic adjustable speed drive for a fan system on a rotary kiln at a pulp and paper plant.

Courtesy of Washington State University Energy Program

Career Highlights

Tony has taken his IAC experience and jumped into new challenges as an Energy Systems Engineer at the Washington State University (WSU) Energy Program. He works for several projects and programs, including the Industrial Services group and the Washington Farm Energy Program. He also represents the WSU Energy Program as a contracted engineer for the Northwest Clean Energy Application Center and the Western Area Power Administration's Energy Experts Hotline. Tony also worked as a contracted engineer for the EERE Information Center, where he provided technical energy assistance to clients across the country.

Tony's ability to quickly integrate into many different projects is directly connected to his IAC experience. The first project he tackled for the WSU Energy Program is a standout. Tony was tasked with investigating energy efficiency improvements for a large 250-horsepower pump at a pulp and paper mill. Tony determined that the pump was considerably oversized. He recommended that it be replaced with a 125-horsepower unit. After making this change, the mill is saving an estimated 700,000 kilowatt-hours per year.

Tony recently worked with a large dairy farm that was about to install over 70 five-horsepower ventilation fans in their barns. Tony noted that the technology, while conventional, was not the most efficient. Tony recommended that the farm install a high-volume, low-speed (HVLS) fan instead, which is

expected to save $10,000 per year in energy costs for the farm. The recommended fan is now installed and the farmer is expected to receive a $20,000 utility incentive. Tony is happy that his analysis helped the farmer save energy and money, noting that "This would have been a lost opportunity if the farmer hadn't asked us for assistance."

Tony sees many ways in which his IAC experience has impacted or assisted his career. Specifically his time with the IAC provided him with work experience and an energy background so he could hit the ground running at the WSU Energy Program. "I easily transitioned into my current position without major training. My superiors immediatley felt comfortable sending me into the field to perform energy audits.

Tony's supervisors agree that his IAC experience has been invaluable and points out that his professional development has accelerated due to his experience in the IAC program.
Within a year of graduating and working full time, he became a DOE Qualified AIRMaster+ Compressed Air Specialist. Tony has also co-developed introductory and advanced energy training for personnel doing energy audits for agricultural operations.

Focus on the Future

Tony is currently an EIT (Engineer in Training) in the state of Washington and plans to pursue his Professional Engineering license (PE) and become a Certified Energy Manager (CEM). He may also pursue an MBA.

A Strong Energy Portfolio for a Strong America

Energy efficiency and renewable energy will mean a stronger economy, cleaner environment, and greater energy independence for America. Working with a wide array of state, community, industry, and university partners, the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy (EERE) invests in a diverse portfolio of energy technologies. The Advanced Manufacturing Office (AMO) within EERE is the lead government program working to increase the energy efficiency of the U.S. Industrial Sector.

ABOUT THE IAC PROGRAM:
A program area of AMO, the Industrial Assessment Centers (IACs) provide eligible small- and medium-sized manufacturers with no-cost energy assessments. Additionally, the IACs serve as a training ground for the next-generation of energy savvy engineers.

ADDITIONAL INFORMATION:

EERE website: www.eere.energy.gov

AMO website:
www.eere.energy.gov/industry/

IAC student forum website:
www.iacforum.org

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