

Industrial Assessment Center Experience – and Opportunities – In Alaska

During the week of August 4, 2014, ACEP team members Nathan Green, Brita Mjos, Chris Pike and George Roe joined faculty and students from the Industrial Assessment Center (IAC) hosted at Boise State University, Torie Baker from the Sea Grant Marine Advisory Program, and Rebecca Garrett from the Alaska Energy to assist with assessments of energy and water use at three seafood processors in Kodiak, AK. The three plants included a very large plant, a medium-sized plant and a smaller plant. For all three businesses, opportunities for efficiency gains were identified in the operation of the



Photo: Torie Baker

large ammonia based refrigeration systems as well as lighting. Detailed, company-specific reports were provided by BSU to each of the facilities, and non-attributable public domain versions of the recommendations were incorporated in the IAC database hosted by Rutgers University.

Report #	Total Energy Costs	Annual Savings	Capital Costs	Other Costs	Simple Payback (yrs)
43	\$ 1,426,800	\$ 245,457	\$ 142,234	\$ 47,254	0.77
44	\$ 1,375,654	\$ 234,537	\$ 89,499	\$ 0	0.38
45	\$ 518,700	\$ 22,400	\$ 21,792	\$ 10,591	1.45
Total	\$ 3,321,154	\$ 502,394	\$ 253,525	\$ 57,845	0.62

Preliminary assessments indicate that the IAC program can offer significant value to Alaska's manufacturing base, as an effective complement / supplement to the state's existing energy efficiency programs. In addition, the IAC process can identify more holistic operational savings opportunities associated with efficiency improvement in water usage, waste minimization and pollution prevention, and productivity improvement – addressing triple bottom line and energy-water nexus realities. And, it provides a useful context for providing critically important practical hands-on skills and real-world industrial practices awareness to engineers preparing to enter the work force. Broadening of community benefits can be achieved by bundling assessment visits to public buildings (e.g., water treatment facilities, medical clinics, schools), leveraging the investments made to bring IAC teams to manufacturing sites in Alaska. Implementing a "satellite office" at the University of Alaska, and working in conjunction with one of the established IAC institutions (e.g., Boise State University or Oregon State University) would provide a practical and cost-effective path forward for bringing the IAC impact north.

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