

APEGBC Sustainability Award Nomination: University of British Columbia Campus Sustainability Office

In 1997, UBC became the first Canadian University to adopt a sustainable development policy. A year later, Dr. Freda Pagani was entrusted with the task of creating an organization that would implement this policy by coordinating sustainability initiatives across campus. This was a challenging task, as there were no funds available in the university budget. So Dr. Pagani and her colleagues came up with an idea; they would initiate programs to help the university cut down on its energy and water use by 20% over five years, and part of the savings would fund the office. The Campus Sustainability Office (CSO) was established in 1998 as a self-funded entity with the vision of “earning the respect of future generations for the ecological, social and economic legacy we create”. Since then, UBC has become Canada’s leader in campus sustainability.

To meet its ambitious energy and water targets, the CSO hired an energy manager, Jorge Marques, to develop and implement a comprehensive energy and water management program on campus. Jorge is registered professional engineer and a UBC alumnus with a solid commitment to sustainability and whose vision for UBC is of a university that not only teaches and researches sustainability but practices it as well. Jorge works with teams of engineers—including Prism Engineering and MCW Consultants—to generate innovative ideas and to implement cutting edge technologies at UBC.

Changing the infrastructure

The CSO’s retrofit program includes several components. ELECTrek was a light retrofit project covering 50 buildings on campus, and which saw the replacement of old lighting fixtures with compact fluorescent bulbs, electronic ballasts and T8 high efficiency tubes, LED lamps in exit signs and state-of-the-art induction lamps which last an average of 25 years. ECOTrek is the next generation of upgrades, introducing new technologies such as computerized building automation systems, upgrades to HVAC systems, conversions to VAV, retrofits of constantly flushing urinals with motion sensors, upgrades to low-NO_x burners for the steam boilers, replacement of failed condensate piping and installation of utility meters in individual buildings. The infrastructure upgrade is a \$35 million project that includes over 250 buildings totaling 6.7 million square feet. It will save the university up to \$2.5 million dollars annually in the next few years! They will also save 15,000 tonnes of CO₂ emissions annually.

Changing behaviour – While increasing resource efficiency is a great step towards sustainability, the contribution of the university community cannot be ignored. So the office couples its energy management programs with several educational initiatives that aim to change behaviour. The Sustainability Coordinator Program has recruited over 125 staff and faculty from various units on campus as volunteers who take the sustainability message to their workplaces. The Social, Ecological and Economic Development Studies (SEEDS) program brings together more than 200 students, staff and faculty to produce academic research on important sustainability topics of interest to the UBC community. The TREKstep 1 program, a partnership between the CSO and BC Hydro, provides students with an interest in applied sustainability with valuable work experience. Finally, the Sustainability Pledge Program invites students to ‘pledge’ to take sustainability into account after they graduate from UBC and proceed to become the citizens and leaders of tomorrow.

The achievements of the Campus Sustainability Office have won it the recognition of the community, including a Power Smart Certification from BC Hydro in 2003 and gold level status with the Voluntary Climate Challenge Registry. The office continues to demonstrate that by pulling together our technological and social resources, we can create a sustainable campus