

IESVic Seminar

DATE: Monday, September 11th, 2017

TIME: 1:30 – 2:30 pm

LOCATION: Engineering Computer Science Bldg. (ECS) Room 660

SPEAKER: **Steven Wong**
T&D Renewable Integration Specialist
CanmetENERGY, Natural Resources Canada

TITLE: ***Utilising Thermal Storage to Enable the High Penetration of Renewables in Canada***

Abstract: Thermal storage can be used to reshape electric heating demand without affecting comfort. At the residential level, there are two major opportunities for using thermal storage: space heating/cooling and water heating. Thermal storage from space heating can be captured by using either electric thermal storage units (thermal bricks in an insulated container) or, as also the case for space cooling, from the house itself. Electric water heaters, ranging from conventional units with add-on load controllers to plastic-polymer tanks with integrated ‘smart’ units, can be used to utilize the thermal storage potential from water heating. This presentation will provide an overview of these options and CanmetENERGY activities in the area of demand response and renewables integration, illustrated through a review of bulk and distribution case studies and projects in Canadian utilities.

Biography: Steven Wong has been a researcher with the Government of Canada’s Department of Natural Resources in the CanmetENERGY laboratory since 2010. Within, he is a member of the Renewable and Distributed Energy Resources Group whose activities include working with partners in government, industry, and academia to “act as a supplier and catalyst for a sustainable energy future for Canada”. Dr. Wong obtained a Master’s of Management Sciences in 2005 and a PhD in Electrical Engineering (power systems) in 2009 from the University of Waterloo, where he pursued studies in electric power systems and operations research.