

NSERC CREATE  Un programme  
FONCER du CRSNG

## Séminaire

Le 15 janvier 2024, 13h

ARC 233 et [MS Teams](#)

\*Le séminaire se déroulera en anglais.\*

## Seminar

Monday, January 15, 2024, 1 p.m.

ARC 233 and [MS Teams](#)

### Solar and batteries – Designs and benefits at commercial facilities

Joan Haysom, J.L. Richards & Associates Ltd.

**Abstract:** Solar is a very predictable annual energy supply that can be deployed at all scales, from 5 kW residential systems through to 100 MW+ utility-scale farms. The present market and regulatory environment in Ontario has little support for the smallest or largest systems, but systems at the commercial building scale (100 to 1000 kW), installed in a “behind-the-meter” and/or “net-metered” configuration are practical and financially attractive. Solar deployments support carbon reduction goals and have a role in peak demand reduction. Batteries are not required for solar system implementation, however battery energy storage systems offer similar and complimentary benefits. Details of the best configurations depend on rates structures, regulations, incentives, and secondary facility goals, such as resiliency. Case studies from solar & battery deployments at municipal facilities, water treatment and industrial complexes, including for Class A electricity consumers, and in new construction of net zero carbon/energy buildings will be discussed.

**Bio:** Joan has a BSc in Engineering Physics from Queen's University and a PhD in Physics from the University of Ottawa. She spent the first dozen years of her career in consulting and R&D of semiconductor integrated circuits patents, light emitting devices, and optoelectronic integration at Group IV Semiconductor, Bookham Technologies, Nortel Networks, and Chipworks. She made a switch to renewable energy around 2010 and has been in applied R&D project management and engineering consulting since. During the past five years, Joan led the initiation and growth of the Innovative Energy Market at J.L. Richards (JLR), supporting clients across a breadth of renewable energy, energy storage and building decarbonization projects. In addition to her role at JLR, Joan is on the advisory board of the Ottawa Climate Action Fund (one of seven Low Carbon Cities Canada centres), is a long-time member of the Ottawa Renewable Energy Cooperative, is an adjunct professor with University of Ottawa's SUNLAB solar research group, and at home has solar, battery, air source heat pump, a PHEV and an EV.



TOP-SET est un programme de formation FONCER du CRSNG en puissance optoélectronique ayant pour but de façonner une cohorte de personnel hautement qualifié détenant des connaissances approfondies en systèmes optoélectroniques pour rejoindre les rangs d'équipes de recherche et développement.

Pour de plus amples renseignements sur TOP-SET, veuillez consulter [create-topset.eecs.uottawa.ca/fr/accueil/](https://create-topset.eecs.uottawa.ca/fr/accueil/).

NSERC CREATE Training in Optoelectronics for Power: from Science and Engineering to Technology (TOP-SET) is a training program that aims to form a cohort of highly qualified personnel with comprehensive understanding of optoelectronic systems, capable of joining advanced R&D teams.

For further details regarding TOP-SET, go to [create-topset.eecs.uottawa.ca](https://create-topset.eecs.uottawa.ca).



Le financement pour TOP-SET est fourni par le Conseil de recherches en sciences naturelles et génie.  
TOP-SET is funded by the Natural Sciences and Engineering Research Council of Canada.



Le financement pour ce séminaire est fourni par l'Université d'Ottawa.  
This seminar is funded by the University of Ottawa.