



**Ontario Tech University**  
**IAEA Collaborating Centre**

**Workshop**  
**on**

**The Role of Nuclear Energy**  
**in the Hydrogen Economy**

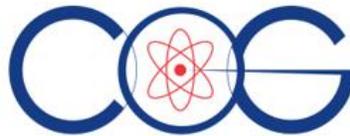
**Venue: Ontario Tech – North Campus**  
**Science Building – room UA1350**

**19 – 21 November 2022**

**Organized  
in Collaboration with**



CANDU Owners Group Inc.



*"Excellence Through Collaboration"*



U N E N E

University Network of  
Excellence in Nuclear  
Engineering



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Innovation at work

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# **Workshop Program**

*Saturday – 19 November 2022 (Room UA1350)*

08:00 Registration

Opening Session

**Ontario Tech University**

09:00 **Steven Murphy**  
*President and Vice-Chancellor*  
*Ontario Tech University*



**Les Jacobs**  
*Vice President, Research & Innovation*  
*Director, IAEA Collaborating Centre*



**Hossam Kishawy**  
*Dean of Faculty of Engineering & Applied Science*  
*Liaison Officer, IAEA Collaborating Centre*



09:20 **CANDU Owners Group (COG)**  
**Carlos Lorencez**  
*Director*  
*Nuclear Safety and Environmental Affairs*



**Sonia Iqbal**  
*SMR Program Manager*  
*Nuclear Safety and Environmental Affairs*



09:40 **Nuclear Hydrogen Initiative (NHI)**  
**Elina Teplinsky**  
*Partner, Pillsbury, Washington, DC*



10:00 **University Network of Excellence**  
**in Nuclear Engineering (UNENE)**  
**Jerry Hopwood**  
*UNENE President*



10:20 Coffee Break

**Saturday – 19 November 2022 (Room UA1350)**

**Technical Session**

**Chair: Carlos Lorencez**

*Director, Nuclear Safety and Environmental Affairs  
CANDU Owners Group (COG)*



**Bruce Power's Clean Energy Strategy  
and the Role of Hydrogen**

**11:00**

**Wes Johnsen**  
*Director, Net Zero  
Bruce Power*



**Comparative Evaluations of Nuclear  
Hydrogen Production Methods**

**11:30**

**Ibrahim Dincer**  
*Professor of Mechanical Engineering  
Ontario Tech University*



**Technical Visit**

**12:00**

Ontario Tech's Clean Energy Research Laboratory (CERL)

**13:00**

**Lunch**

*Saturday – 19 November 2022 (Room UA1350)*

**Technical Session**

**Chair: Elina Teplinsky**

*Nuclear Hydrogen Initiative  
Partner, Pillsbury, Washington, DC*



**IMSR Development Pathway with connection  
to Hydrogen production**

**14:30**

**William Smith**  
*Senior Vice President  
Terrestrial Energy*



**Industrial case study: eFuel Giga Factory  
next to existing assets**

**15:00**

**Célestin Piette**  
*Director of Business Development  
Tractebel*



**15:30 Coffee Break**

**Saturday – 19 November 2022 (Room UA1350)**

**Technical Session**

**Chair: Jerry Hopwood**

*President*

*University Network of Excellence in Nuclear Engineering*



**Technical Development and Challenges of  
Electrolyzers and Fuel Cells**

**16:00**

**Xianguo Li**

*Professor, University of Waterloo*

*President of the Fuel Cell Division*

*International Association for Hydrogen Energy*



**Large-scale Innovative Alkaline Electrolysis**

**16:30**

**Alan Tan**

*Vice President, Business Development*

*Next Hydrogen*



**Reception**

**17:00**

**Wes Johnsen**

*Director, Net Zero*

*Bruce Power*



*Sunday – 20 November 2022 (Room UA1350)*

**08:00 Registration**

**Technical Session**

**Chair: Jennifer McKellar**

*Associate Professor*

*Department of Energy and Nuclear Engineering*

*Ontario Tech University*



**Advances in SMR Technology Developments for  
Near-Term Deployment –Prospects and Challenges**

**09:00**

**Hadid Subki**

*Technical Lead, SMR Technology Development*

*International Atomic Energy Agency*



**Opportunities for nuclear hydrogen – using  
the current fleet and advanced  
nuclear reactor technologies**

**09:30**

**Alina Constantin**

*Nuclear Engineer, Non-Electric Applications*

*International Atomic Energy Agency*



**Current status and future developments in  
nuclear-power reactors with objective  
for hydrogen co-generation**

**10:00**

**Igor Pioro**

*Professor*

*Ontario Tech University*



**10:30 Coffee Break**

**Sunday – 20 November 2022 (Room UA1350)**

**Technical Session**

**Chair: Markus Piro**

*Chair, Department of Energy & Nuclear Engineering  
Ontario Tech University*



**Enbridge and Hydrogen in the Energy Transition**

**11:00**

**Sam McDermott**

*Technical Manager, Business Development  
Enbridge Gas Inc.*



**Growth prospects for Hydrogen**

**11:30**

**Ivette Vera-Perez**

*President & CEO  
Canadian Hydrogen & Fuel Cell Association*



**Challenges and Opportunities Related to a  
Transition to Hydrogen as a Transportation  
Energy Vector**

**12:00**

**Ry Smith**

*Owner & Partner  
Change Energy Services Inc.*



**12:30**

**Lunch**

**13:45**

**Technical Visit**

Ontario Tech's Automotive Centre of Excellence (ACE)

**14:45**

**Tutorial Session** (case studies by Ontario Tech researchers)

**Chair: Martin Agelin-Chaab,**

*Associate Professor & Graduate Program Director  
Ontario Tech University*



**15:15**

**Coffee Break**

**Sunday – 20 November 2022 (Room UA1350)**

**Panel Discussion Session**

**Chair: Daniel Hoornweg**

*Richard Marceau Chair  
Associate Professor*

*Faculty of Engineering & Applied Science  
Ontario Tech University*



**Panelists:**



**Xianguo Li**

*Professor, University of Waterloo  
President of the Fuel Cell Division  
International Association for  
Hydrogen Energy*

**15:45**



**Kirk Atkinson**

*Director of the Centre for  
Small Modular Reactors*



**Chad Richards**

*Director - New Nuclear &  
Net Zero Partnerships  
Nuclear Innovation Institute*



**Ry Smith**

*Owner & Partner  
Change Energy Services Inc.*



**Elina Teplinsky**

*Nuclear Hydrogen Initiative  
Partner, Pillsbury, Washington, DC*

**Closing Remarks**

**Hossam Kishawy**

*Dean of Faculty of Engineering & Applied Science  
Liaison Officer, IAEA Collaborating Centre  
Ontario Tech University*

**17:30**



*Monday – 21 November 2022*

**Technical Visit (OPG – Darlington Energy Complex)**  
**Information will be communicated at Registration Desk**

# Ontario Tech – North Campus Map



Campus interactive map: <https://ontariotechu.ca/maps/>