

## Facing the Challenges: Achieving Decarbonization Goals for the Electricity Grid in Canada



The federal government mandate in Canada for electric utilities aims to achieve an emission-free electricity grid by 2035. As Canada moves towards transitioning to an emissions-free grid, this workshop will focus on the challenges and opportunities in decarbonizing the electrical grid. Understanding these complexities is crucial for professionals, students, and anyone passionate about sustainable energy solutions in light of the federal government's ambitious mandate to reduce greenhouse gas emissions.

IEEE Kitchener-Waterloo Section PES Chapter in collaboration with the IEEE PES Ottawa and London Chapters, Department of Electrical and Computer Engineering (ECE), and Waterloo Institute of Sustainable Energy (WISE) is organizing a one-day workshop at the University of Waterloo to discuss the challenges in achieving decarbonization goals.

**Date:** 28 November 2024 (Friday), **Time:** 9 AM – 4 PM

**Venue:** University of Waterloo [Faculty Hall, Engineering 7 building]

### What You'll Learn:



- **Understanding the Current Grid:** Overview of Canada's electricity grid and its carbon footprint
- **Identifying Challenges:** Key obstacles to achieving decarbonization goals, including infrastructure, policy, regulatory and technology barriers









- **Decarbonization Strategies:** Effective technologies and policies to overcome these challenges
- **Long-Term Planning:** How electric utilities in Canada are developing long-term plans to achieve decarbonization goals
- **Grid Modernization:** Upgrading grid infrastructure to accommodate renewable energy integration, improve efficiency, and enhance resilience
- **Education and Training:** The importance of training a skilled workforce to support the transition to zero emitting grid.




**Agenda:**

09:00 AM - 09:45 AM	Registration and networking. Refreshments: tea/coffee, snacks
09:45 AM - 09:55 AM	Opening remarks, briefing on the agenda/objectives of the workshop Kankar Bhattacharya, Chair, Dept. of ECE, University of Waterloo
09:55 AM - 10:25 AM	Keynote presentation: Prof. Jatin Nathwani, Professor and Ontario Research Chair in Public Policy for Sustainable Energy, University of Waterloo
10:30 AM - 11:45 AM	Panel 1: What are the challenges in achieving decarbonization goals for the electricity grid in Canada
11:50 AM - 12:15 PM	Technical talk: Nidhi Santen, Program Manager, EPRI
12:15 PM - 01:00 PM	Lunch
01:00 PM - 02:15 PM	Panel 2: Clean Energy for Canada: Pathways to an Affordable and Reliable Electricity System
02:20 PM - 03:45 PM YP/WIE/Student Session	Building a Greener Tomorrow: How can IEEE PES help you in navigating a career in the emission-free electricity sector?
03:45 PM - 04:00 PM	Closing Remarks

**Speakers:**

Session	Speaker/Panelist	
<b>Opening Remarks</b>	<b>Kankar Bhattacharya</b> Chair, Dept. of ECE, University of Waterloo	
<b>Keynote</b>	<b>Jatin Nathwani</b> Energy Policy Chair, University of Waterloo	

<b>Panel 1</b>	<p><b>Claudio Canizares</b> Executive Director, Waterloo Institute of Sustainable Energy (WISE)</p>	
	<p><b>Allan Van Damme</b> Vice President, London Hydro</p>	
	<p><b>Dorothy Moryc</b> Vice President, Grid Transformation and Chief Distribution Officer, Enova Power</p>	
	<p><b>Anna Lafoyiannis</b> Senior Team Leader, Electric Power Research Institute (EPRI)</p>	
	<p><b>Mohamed Ahmed Sadek</b> Director, Energy Market Analysis, Electric Power Engineers (EPE)</p>	
	<p><b>Moderator: Raed Abdullah</b> Senior Engineer, Hydro Ottawa Secretary, IEEE Canada</p>	
<b>Technical talk</b>	<p><b>Nidhi Santen</b> Program Manager, EPRI</p>	
	<p><b>Phil McKay</b> Senior Director, Energy Transition Hub, Canadian Renewable Energy Association (CanREA)</p>	

<b>Panel 2</b>	<b>Maike Luiken</b> Chair, IEEE Planet Positive 2030 Initiative	
	<b>Rahul Mithal</b> Senior Planner, Independent Electricity System Operator (IESO)	
	<b>Hisham Omara</b> Vice President, Grid Modernization, Alectra Utilities	
	<b>Eduardo Gomez Henning</b> Director, Innovation, Grid Technologies, Siemens Energy	
	<b>Moderator: Ajit Pardasani</b> Senior Research Officer, National Research Council (NRC)	
<b>YP/WIE/Student Session</b>	<b>Anshul Goyal</b> , Engineer, EPE  <b>Nitin Padmanabhan</b> , Senior Research Engineer, EPRI	  

**Who Should Attend:**

- Utility professionals
- Academics

- Researchers
- Students in relevant fields
- Anyone interested in sustainable energy practices

**Registration:** The registration for the workshop is **MANDATORY**, there are **NO** registration fees. Please register for the workshop using the following link at the IEEE meetings and events management portal: <https://events.vtools.ieee.org/m/444001>

**Don't miss out on this opportunity to engage with the critical challenges of a sustainable energy future!**

**Parking:** <https://uwaterloo.ca/sustainable-transportation/visitors>

