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Panel Discussion on

"Net Zero Emissions and the Technology Required"

Organized by

1) Dale Tardiff, Chair, Outreach and Partnership Committee
2) Gamal Refai-Ahmed, Vice-Chair Outreach and Partnership Committee
3) Ray Barton, Outreach and Partnership Committee

September 15th 3:30 - 5:00 PM ET

Theme:
There is much discussion of reaching Net Zero emissions by various proposed dates. As with any goal, a plan or roadmap is required to reach this target. In the case of reducing emissions of green house gases significant sectors of the economy are impacted. Some notable examples are energy production and transportation.
In this panel discussion, possible technologies that can be implemented by several sectors will be introduced. The intention is to start a discussion and get people thinking about various ideas and what their impacts could be. Hopefully the takeway for participants will be an increased understanding of the technology requirements and the technical challenges to be overcome in attempting to reach a net-zero economy.

Format:
The proposed format is to allow each panelist to present their particular position in a 10 – 15 minute overview. With 4 panelists, this will cover approximately 1 hour.

Following all presentations, it is intended to have a live Q&A session open to all attendees. This will engage the audience and hopefully lead to a lively and informative discussion.

The total duration will be approx. 1 ½ hours, depending on the length of the Q&A session.

Agenda:
3:30: Opening Remarks and Introduction of Panelists.
3:40: Panelist Presentations
4:30 Open Q&A Period Directed By The Moderator
4:55: Summary and Closing Remarks

Panelists:

(i) **Peter DeVita Reducing GHGs with Heat Pumps and Geothermal Energy** – He is a past president of Professional Engineers of Ontario and the Ontario Society of Professional Engineers. He was on the Board of OSPE and also helped to create OSPE. Currently he is President of Engineers for the Profession, advocating for recognition of the emerging technologies by the professional licencing bodies. He is a past President of CSPE.

(ii) **Soheil Asgarpour – Methane Detection, Quantification, Reporting and Mitigation** Reducing methane emissions is the most efficient and cost-effective approach to reducing GHG emissions and creating a clean Canadian oil and gas brand. Methane reduction not only allows more natural gas to be sold for profit, but it significantly improves our environment simultaneously. Dr. Asgarpour is the President of the Petroleum Technology Alliance of Canada (PTAC) and President-Elect for the Canadian Academy of Engineering. His expertise is in Oil and Gas Cleantech and his background is in solar energy and heat transfer.

(iii) **Barrie Kirk - Automated, Connected, Electric and Shared (ACES) vehicles as part of the new mobility ecosystem** Barrie Kirk, P.Eng. is the Executive Director of CAVCOE (formerly the Canadian Automated Vehicles Centre of Excellence). He is a well-known consultant, speaker and broadcaster on automated vehicles, and has advised many public and private sector organizations on planning for the CAV era. Barrie has worked in the technology industries in Canada, the U.S. and the U.K., including senior management positions in Ottawa-area companies. Barrie received a B.Sc. (Honours) in Electrical Engineering from Coventry University, U.K. and is a Professional Engineer.

(iv) **Jiri Skopek – Net Zero Buildings** Reaching the net zero carbon in buildings at an earliest timeframe (before 2050) is critical to survival of life on this planet, as we know it. Jiri Skopek, former executive director of sustainability with JLL, will discuss several key components of this effort: a) benchmarking and monitoring of carbon reduction, b) retrofit of existing buildings and construction of new to net zero standards and connecting buildings to grid as so called grid-enabled buildings. Jiri Skopek provides advice to building owners and managers on sustainable development in design, asset and facility management, emergency preparedness, business continuity, smart buildings and innovative planning and business development solutions. He is a principal of Jiri Skopek Architect and Planner, chair of the NIST/ Dept. of Commerce “Global Cities Team Challenge” - Smart Building SuperCluster, and vice-chair of Districts 2030 Network Board of Governors.