Agenda

- UTC is looking forward to your attendance at the Power Grid Forum Meeting being held October 24-26 at the Hotel Omni Mont-Royal
- The registration desk, education sessions, meals, are receptions are located on the 1st floor of the hotel just above the lobby.
- Additional information may be found on the Power Grid Community on UTC's NetWorks site at this link and on the event website at this link.
- The NetWorks community is only open to registered attendees of the meeting. Click here to register now.

Tuesday, October 24ᵗʰ

5pm – 7pm	**Welcome Reception – 1st floor**

Wednesday, October 25ᵗʰ

7:30 a.m. - 5:00 pm	**Registration & Breakfast**
8:15 – 9:00 am	**Welcome Remarks & Keynote/ _Room: Saisons A&B_**
Presenter:	**Ron Beck, Interim President & CEO – Utilities Technology Council**
9:00 – 10:00 am	**Leveraging the Power of Human and Artificial Intelligence / _Room: Saisons A&B_**

In the next decade, artificial intelligence will be deployed in all areas of energy operations. The impact will be both transformative and subtle. This talk discusses the potential for artificial intelligence to reshape the nature of work, its effect on employees, and how relationships within and across organizations could change. Strategies for leveraging the best of human and artificial intelligence as a means to enhance organizational performance are also explored.

Presenter:	**Jacqueline Corbett, Professor, Management Information Systems, Université Laval**
10:00 – 10:30 am	**Networking Break**
10:30 – 11:30 am	**How Artificial Intelligence (AI) can be leveraged for the Network for Utilities**

AI is certainly the hot topic in 2023 with the introduction of ChapGPT in late '22 and every business is trying to figure out what role AI can play in their businesses. But what role can AI play for the communications network for utilities? This presentation will attempt to demystify this topic for Canadian utilities.

We will cover:

- Intro to AI: what are the basics of AI
- How AI is being used for different enterprise verticals
- How AI can be leveraged to gather insights of optical networks for utilities
- Demo of AIOps application to show specific use-case for utilities

Presenter :   **Mitch Simcoe, Senior Advisor - Ciena**

11:30 am - 12:30 pm   **Enhancing the Electric Utility through the use of Artificial Intelligence**
/ *Room: Saisons A&B*

When you arrive at a project worksite or walk into the drawing room, there's a strong likelihood that the manual processes you see at work are the same that were used decades ago. The fact is that utilities are building tomorrow's critical infrastructure with yesterday's tools and workflows. And the cost of rolling out a surveyor's wheel or brandishing a height stick isn't just felt on the bottom line — it's felt on your safety record, from DART to TRIR. Stagnant processes and aging tech drag out project timelines, compromise the accuracy of execution, and simply require more boots on the ground — all of which heighten exposure to myriad safety risks. However, these risks can be highly mitigated by leveraging innovation. Using drones to complete field engineering, for example, enables A&E teams to compress project cycle times, gain a higher degree of accuracy, and drive standardization — all while significantly minimizing safety risks. Our team will explain how we help Critical Infrastructure partners evolve data collection and automate the creation of key deliverables for telecom, distribution, and transmission — elevating safety every inch of the way.

- While it may sound counter-intuitive, technology, including drones and other field data collection tools, can radically accelerate Critical Infrastructure project timelines while simultaneously *enhancing* safety.

- By leveraging artificial intelligence, utilities can dramatically shorten the number of team members out in the field, the duration of their deployment, and the safety hazards they encounter (e.g., traffic, weather, etc.)

- In using artificial intelligence to increase the accuracy and overall quality of field engineering and other activities, Critical Infrastructure companies will reduce costly return trips to the field and equipment failures.

Presenter: **Chrissy Carr**, **PE**, **Chief Engineering Officer, Milhouse, Inc.**

12:30 - 1:45 pm	**Networking Luncheon / Room: Pierre de Cubertin**

1:45 - 2:45 pm	**Private Virtual Network Operations for the Digitize Utility**

For the past several years, Hydro-Québec has been leveraging commercial cellular offerings to enable a variety of control and measurement use cases across several thousand endpoints.

With the advent of 5G and private networks, Hydro-Québec is considering implementing a cellular core infrastructure that will allow the deployment of private LTE/ 5G networks as well as the "PVNO" concept for "Private Virtual Network Operator."

This infrastructure will enable many more use cases for potentially millions of endpoints by tackling several shortcomings of current commercial offerings related to security, interoperability, expertise, reliability, performance, cost, and life cycle management.

Hydro-Québec has been working on the PVNO concept since 2011.

Presenter:	**Barmak Khosravi, Engineer – Hydro Quebec**

2:45 – 3:00 pm	**Networking Break**

3:00 – 4:00 pm	**HydroNet – The Joint Project for Creating a Hydrogen Region in North-Rhine-Westphalia with Global Network Connection** */ Room: Saisons A&B*

Hydrogen can be a game changer in reaching climate goals. The industry sector is under pressure to become CO2-neutral and substitute fossil gas. HydroNet, with its 28 partners, demonstrates what is possible with hydrogen and where the bottlenecks regarding technology and framework are. This project shows how to develop a region along the whole value chain of the hydrogen market by building infrastructure, regional hydrogen production, and transformation of different industry sectors (e.g., automotive and steel). Combined with mobility, HydroNet builds the lighthouse project for hydrogen.:

Presenter:	**Andreas Breuer, Head of Hydrogen, Regional Technology/Asset Management - Westnetz GmbH**

4:00 – 5:00 pm	**Power Grid Digitalization: TETRA for Utilities**

The Smart Grid concept originated to support the modernization of electricity transmission and distribution systems to improve infrastructure reliability and meet increasing demand and growth. The definition is broad but includes the use of digital information to improve the efficiency of the power grid, optimization of operations and resources, and implementation of "smart" technologies. This presentation describes the data communications capabilities of TETRA technology for daily utility operations, for SCADA, and with a view toward integration with broadband technologies.

Presenter:	**Luis Ignacio Callen, Senior VP Sales, PowerTrunk**
5:00 – 7:00 pm	**Networking Reception**

Thursday, October 26th

7:00 am	**Registration & Breakfast**
8:00 - 8:15 am	**Welcome Remarks /*Room: Saisons A&B***
Presenter:	**Ron Beck, Interim President & CEO – Utilities Technology Council**

8:15 - 9:15 am   **Why do changes in your network take so long? How one of the largest United States utilities adopted an operation support system (OSS) which significantly streamlined change impact analysis, resulting in fast and seamless identification of services impacted by network changes**

Comarch will detail the digital transformation journey of one of their clients, a large West Coast utility company, and demonstrate how Comarch OSS Solutions played a pivotal role in achieving one of the company's strategic goals: reducing the time required for implementing network changes. Additionally, Comarch will provide insight into a strategic approach for utilities to simplify telecom network management with a real-time network inventory. Comarch OSS eliminates network management pain points stemming from emerging technologies and multiple vendors. The challenge lies in managing an increasingly complex infrastructure driven by emerging technologies and a multitude of management systems. Legacy networks, combined with 4G and 5G elements, have created this complex landscape posing ever-growing management challenges. The solution to reduce the complexity lies in a high degree of automation within the networks and in their management. Utilizing unified, multi-vendor inventory management enhances resource utilization and lowers costs. Furthermore, gaining a comprehensive view

of multi-vendor, multi-domain networks not only unlocks the potential of your data, but also opens up new opportunities.

Presenter: **Piotr (Peter) Stoklosa, Pre-sales Solutions, Comarch**
Michał Mędrala, Head of OSS Consulting, Comarch

9:15 – 9:30 am   **Networking Break**

9:30 - 10:30 am   **Impact of 5G & AI on Your Data Centers**

As AI and 5G technologies proliferate through communication channels all around us, it is worth noting that they will inherently change the geoplacement, usability, and application of edge computing assets. Coupled with the private, public, and hybrid cloud connectivity models, they all push the limits of data center architectures and deployment models. This talk will address some of these challenges and their potential solutions.

Presenter: **Senad Palislamovic, Head of Technology, CTO office – Nokia Enterprise**

10:30 - 11:30 am   **Why IT / OT security doesn't stop at the perimeter**

This year's Red Report identified that credential access is one of the most prominent attack trajectories under the MITRE Attack Framework used by adversaries in cyber-attacks. Techniques such as 'adversary in the middle' and credential dumping allow bad actors to gain unauthorized access to critical infrastructure.

Lateral movement is also on the rise which allows attackers, once inside, to move from one system to another until sensitive data is compromised with new techniques now in play, that enable attackers to abuse built in tools and protocols and weaponize legitimate software.

This emphasizes that perimeter-based security is not enough – organizations must strengthen their resilience by developing strong policies and defensive techniques that protect both critical application data flows in IT networks and interconnects between IT and OT networks.

This session will consider:
- Several common attack trajectories used to penetrate critical infrastructure
- Common risks and security gaps that adversaries continue to leverage
- What to do about it.

Presenter: **Simon Hill, Networks Vice-President, Certes**

| 11:30 am - 12:45 pm | **Networking Luncheon** / *Room: Pierre de Coubertin* |

| 12:45 – 1:45 pm | **NYPA's Digital Strategy: The Case for Digital Worker, Intelligent Automation, and Artificial Intelligence** |

As head of Digital Innovation, Marwan is currently leading the New York Power Authority's enterprise innovation journey focusing on the Agency's VISION2030 Goals on sustainability, productivity, and digitization. Marwan's presentation will emphasize specifically the work he is leading around connectivity and digital workers, intelligent automation, and artificial intelligence.

| **Presenter:** | **Marwan Madi, Director, Digital Innovation & Transformation Office, New York Power Authority** |

| 1:45 – 2:45 pm | **Navigating Complex Threats, Vendor's Rapid Adoption of Cloud-Based services, Virtualization, and Tech Evolution in a Regulated Utility Climate** |

With modern cyber threats that think and spread at the speed of AI, nation states investing in attacking the power sector, vendors rapidly adopting cloud services without leaving any on-site hardware options, and technology evolving orders of magnitude faster than the regulations and standards can keep up, it has become extremely difficult for utility security professionals to make design decisions that satisfy both the auditors and the board, while providing enough defense, detection, and response capabilities to keep the lights on. This timely presentation by security veteran Jonathan Pollet starts with what he and his team are seeing in the trenches of the ICS/SCADA Security industry, expand on what we all thought were clear lines in the sand from an ESP and 6-walls of protection standpoint, and spark lively controversial discussions. Come to this session armed with your questions and comments as we dive into these complex issues facing utility asset owner security professionals. With virtualization options available at the network, hardware, software, and radio/communications layers, what are the key design concepts that utility asset owners should never compromise on, and where are the best use-cases for these new defense, detection, and response solutions.

Key Take-Aways for Attendees

1. Understand how some of the recent cyber-attacks targeting the utility sector and SCADA systems work, which typical vulnerabilities they took advantage of, and the key defensive technologies and procedures can defend against them.
2. Discover mistakes and security findings disclosed from assessments and penetration tests performed on ICS/SCADA systems in the Utility Sector to avoid

making those same mistakes in your own systems.

3. Learn the motivations behind why security and infrastructure vendors are racing to leave behind the option for on-site solutions in exchange for cloud-based services and what does that mean for a regulated industry operating on standards that are struggling to keep up with technology evolution.

4. Join the conversation as utility security teams are struggling with how to securely deploy today's security solutions like ZTNA (zero trust network access), MFA (multi-factor authentication), 24x7 asset and patch management, and a host of other IT/OT/IoT Convergence solutions in a hybrid post-covid workplace while still passing audits based on standards written before these technologies were designed.

Presenter:	**Jonathan Pollet, Founder, Executive Director – Red Tiger Security**

2:45 – 3:15 pm   **Networking Break**

3:15 – 4:15 pm   **Disruptive Technologies in Utilities Cybersecurity/ *Room: Saisons A&B***

The session will explore the following key topics:

- Technological advancements and their impact on utility cybersecurity: Analyzing disruptive technologies such as AI and Digital Twin and their potential to enhance cybersecurity practices, industry standards, and operational workflows within energy and utility companies.
- Addressing negative impacts of disruptive technologies on power and utility cybersecurity: Recognizing the potential risks and challenges associated with disruptive technologies, understanding their potential vulnerabilities, and exploring mitigation strategies to safeguard critical infrastructure and systems.
- Ensuring Positive Integration of Disruptive Technologies: Leveraging the Roles of CIO, CTO, and CSO

Presenter:	**Ali Ahmadi, Industrial Cybersecurity Consultant - AtkinsRéalis**
	Olukayode Adegboyega, ICS Cyber Security Specialist – AtkinsRéalis

4:15 – 5:00 pm   **Round Table Recap Journey / *Room: Saisons A&B***

5:00 – 7:00 pm   **Networking Reception - Atrium**