



**CANADIAN
HYDRONICS
COUNCIL**

Webinar Series 2024

Topic & Descriptions	Presenter	Proposed Date & Time
<p>Electrifying Domestic Hot Water with Hydronics – Commercial</p> <p>Making domestic hot water for commercial or multi-unit residential buildings can be a lot different than for houses. There’s typically more equipment producing waste heat for collection, more room for preheat tanks and heat pumps, and a higher likelihood of large dump loads requiring more storage tanks. Individual usage patterns blur together to make sizing and control decisions quite different. In this seminar we’ll review some of the best ways to electrify a DHW system in a commercial-scale facility, tying in heat pump technology in ways that might surprise you.</p>	<p>Tom Heckbert, Rheem Canada Ltd./Ltee</p>	<p>April 11, 2024 2:00 pm – 3:00 pm</p>
<p>Phase Change Materials and Their Functions in Hydronics Systems Design</p> <p>Hydronics has been around since the Romans, so it’s not very common for new technologies to enter into the industry. The last big revolution was deliberate condensing in boiler heat exchangers. Drawing on a phase change, from steam to liquid, of the water vapour naturally present in flue gas, maximum boiler efficiencies climbed 10% almost overnight. Now a new kind of phase change material is coming into play, in what are being called “thermal batteries”, vessels of material that can melt and freeze, at design temperatures we use every day, storing and releasing heat with each change. Join us to learn more about this exciting new product category.</p>	<p>Michael Ridler, Eden Energy</p>	<p>April 17, 2024 1:00 pm – 2:30 pm</p>

<p>Electrifying Domestic Hot Water with Hydronics – Residential</p> <p>Domestic hot water presents a challenge to electrification. You can't store it below 122F/50C, and typically don't want to deliver it below that either, but most heat pumps don't like to run much hotter than that. And what if your hydronic heat pump is backed up by a gas appliance? What are the best options for the customer when trying to electrify their DHW system? In this seminar we'll explore some of the best options for tying residential DHW into home's hydronic system, while also electrifying and decarbonizing to meet customer demands.</p>	<p>Michael Ridler, Eden Energy & Tom Heckbert, Rheem Canada Ltd./Ltee</p>	<p>April 25, 2024 1:00 pm – 2:00 pm</p>
<p>Low Temperature Heating and High Temperature Cooling Emitters</p> <p>Heat pumps aren't anything to shy away from, but how do you get the right value out of them? By optimizing their performance. There's plenty you can do in design to be sure that the hydronic heat pump delivers the peak of it's potential, especially in new construction. In this seminar we will discuss how to design your heat emitters to use the lowest possible supply water temperatures for space heating, and highest temperatures for space cooling, to get the most of a hydronic heat pump.</p>	<p>Stephen Allen, EMCO Corporation</p>	<p>May 8, 2024 1:00 pm – 2:00 pm</p>
<p>Demystifying Hydronics Heat Pumps</p> <p>It's good to be careful when using new technology. But it's also good to embrace these new heat pump technologies, that are poised to transform the very foundations of our industry. Many of the products coming to market do not require knowledge of, or certification in, the world of refrigeration, but many people remain skeptical regardless. In fact, heat pump design and application aren't more complicated than boilers, it's just different. Join us for a discussion about heat pumps, both monobloc and split systems, and how they're not actually anything to shy away from. Once you're comfortable with them, heat pumps can be a formidable, and highly profitable, tool in your sales kit.</p>	<p>Micheal Ridler, Eden Energy</p>	<p>May 15, 2024 1:00 pm – 2:00 pm</p>
<p>Bonus webinar: Biogas Digesters and Hydronics Applications - Part #1</p> <p>As society considers the changes required to meet upcoming federal carbon and energy goals, generating energy from organic waste, and lowering one's carbon footprint may include RNG (Renewable Natural Gas).</p> <p>One option in generating energy is integrating gas production, electricity and waste heat recovery using an Anaerobic Digester and CHP (Combined Heat and Power or CO-gen system).</p>	<p>Jason Jackson, Fleming College</p>	<p>May 22, 2024 1:00 pm – 2:00 pm</p>

<p>CHP systems continuously supply electricity to a facility while simultaneously using the waste heat from the power generation process for pasteurization, process heating, space heating, domestic hot water, and even air conditioning. This webinar will look at how hydronic systems make these processes operate and their role in the generation of RNG in Biogas Digesters.</p>		
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