







HEAT ACADEMY ONLINE

# Getting to Net Zero: Decarbonizing Heating and Cooling <u>Q&A Session</u>

Wednesday June 17<sup>th</sup> 11:00 – 12.30 EDT (16.00 UK time)

Buildings are the major source of greenhouse gas emissions in the Greater Toronto and Hamilton Area. In order to respond to the climate emergency and get net-zero ready, we must decarbonize heating and cooling. Thermal networks, also referred to as district energy systems will be a critical component in making this possible.

You are invited to the third session in a series of online master classes offered by the Heat Academy. These classes build on the highly successful workshops hosted by Business Sweden in February 2020. This third master class will be fully devoted to addressing the questions and suggestions we have received following the first two sessions. You are also most welcome to forward your additional questions ahead of the workshop. The session is organized in collaboration with the City of Mississauga, Markham District Energy, and Business Sweden.

**The Q&A session will involve speakers** with long practical experience in developing and implementing strategies and solutions to decarbonize heating and cooling in North America and in Europe.

**Bruce Ander**, Markham District Energy **Herbert Sinnock**, Sheridan College **Fernando Carou**, City of Toronto Tanja Groth, Sweco, London, UK George Dobson, BEIS, London, UK Jamie Stephen, TorchLight Bioresources

Christina Keighren, Business Sweden Lars Henriksson, Honorary Consul General, Sweden Peter Anderberg, Heat Academy

To register, please send a mail to Peter Anderberg (pa@nordheat.eu)

The sessions are offered free of charge.



### **Q&A SESSION** – Wednesday June 17<sup>th</sup>

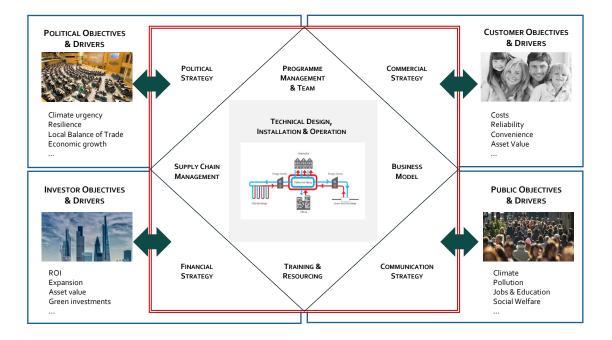
| Time             | Торіс  |
|------------------|--|
| 11:00 – 11:15 AM | Introduction   |
| 11:15– 12:15 AM  | Q&A Session  |
| 12.15-12.20      | <b>Heat Academy – Canada</b><br>Ambitions – Partners – Next Step |
| 12:20 – 12:30 AM | Summary  |

#### FRAME OF REFERENCE FOR **Q&A** SESSION

We will use the model below as a frame of reference to the Q&A session.

The blue squares represent the four key stakeholder groups and the objectives, drivers and considerations they have which will have an impact on the business modelling, design and implementation of a thermal network

The red square represent the energy company (or similar) initiating the investment in a thermal network, and the internal strategies and critical factors to take into consideration.







## **Tanja Groth** – Head of Urban Energy at Sweco London, United Kingdom

Leads Urban Energy, a specialist cross-disciplinary team to support longterm decarbonisation goals across UK cities and help organisations to tackle the climate emergency. The first of its kind in the engineering sector, Urban Energy will focus on working in partnership with local authorities to transform energy strategies with a holistic approach to planning and designing net zero buildings, energy supplies and transport systems.



**George Dobson** - Head of Heat Projects North, Department of Business, Energy and Industrial Strategy

London, United Kingdom Leads a research and delivery team within UK Governments  $\pounds$ 20+ million

low carbon heat network unit with significant experience in energy solutions for buildings. Responsible for project and business development, collaboration and partnering activities with public sector and industry in both the UK and other countries. Manages multi-million pound program budgets..



#### Jamie Stephen – Managing Director at TorchLight Bioresources Ottawa, Ontario, Canada

TorchLight Bioresources is an energy and resources consulting and project development firm based in Ottawa. Jamie has managed bioenergy and cleantech projects for a broad variety of clients including national and provincial governments, utilities, airlines, manufacturers, investment funds, First Nations, and technology developers. Projects have focused on industrial growth strategies, facility feasibility, technology deployment hurdles, policy options, and investments.



# **Bruce Ander** – B.A.Sc, P.Eng., President & CEO of Markham District Energy (MDE)

Since 2002 Bruce Ander has held the position of President & CEO of Markham District Energy (MDE); a thermal energy utility owned by the City of Markham. MDE is recognized as a Canadian and international leader in the development of modern district energy systems providing reliable, resilient and sustainable energy to Markham's new urban centres. Mr. Ander has spent nearly 40 years in Ontario's energy sector developing community energy systems and combined heat & power facilities. Past Chair of the International District Energy Association, the Canadian District Energy Association, the Canadian Energy Efficiency Alliance, and the Association of Power Producers of Ontario. In 2013 MDE was the recipient of the IDEA's System of the Year award, the highest honour the association can confer on a district energy system. In the same year, Ander was awarded the Queen Elizabeth II Diamond Jubilee Medal from the Government of Canada in recognition of the recipient's contribution to the municipal sector in Canada.





**Herb Sinnock** – P.Eng., CEM, CMVP, Director – Sustainability for Sheridan College in Oakville, Ontario

Herb is responsible for all aspects of corporate sustainability vision, strategy and culture, including implementation of Mission Zero, the institution's ambitious plan to reduce energy consumption, waste to landfill and greenhouse gas emissions. Herb is an energy engineer with 25 years' experience working in commercial/industrial energy assessment, project management, teaching, and product development. He is a Certified Energy Manager, Certified Measurement & Verification Professional, and Certified Building Commissioning Professional. Herb holds the US Patent for the Distributed Energy Neural Network Integration System, is a Senior Member of the Association of Energy Engineers and Institute of Electrical and Electronics Engineers. Herb's passion is driving transformational change throughout organizations of all scale and scope, with a focus to realizing a livable future for all species on earth.



### Fernando Carou – B.A.Sc, P.Eng., Manager, City of Toronto –

Environment & Energy Division

Fernando Carou leads TransformTO net-zero development program and is also in charge of assembling the technical, business, and policy framework for net-zero districts, as well as, the development of new low-carbon District Energy Systems (DES) in the City of Toronto.

His focus is on integrating energy and emissions planning into community and economic growth plans, deep de-carbonization of the builtenvironment, including net-zero development to address issues at the source for better outcomes, including climate change mitigation and adaptation (resilience to high impact events, low carbon solutions) and fostering local economic benefit.

Fernando is the past Chair of the Ontario Society of Professional Engineers (OSPE) Energy Task Force, a founding member of the QUEST Ontario Caucus, a contributor to the CSA Technical Committee C282 on Emergency Electrical Power Supply for Buildings, and a contributor to the CaGBC renewable energy working group for net-zero buildings.

Fernando holds an engineering degree from the University of Toronto, has Sustainability training from the Harvard University Extension School, and has completed courses in Advanced Local Government from Western University.



### **Christina Keighren** – Acting Country Manager, Swedish Trade and Invest Council, Toronto

Christina Keighren is a Management Consultant with over twenty-five years' experience at Business Sweden/Swedish Trade and Invest Council in Canada. Dual citizenship with international work experience leading Swedish companies to international expansion and driving market growth in industries such as smart infrastructure, digital health, mining and forestry. Christina also works closely with Canadian companies looking to invest in Sweden within the forestry and mining sector.



RCULAR TIMES GROUP

**THE HEAT ACADEMY** offers a modular training concept in a broad range of topics related to development and installation of sustainable city infrastructure. The mission is to address the competence gaps in the sector, both in terms of quality and quantity, thereby increasing the capacity and speed with which investments in solutions to decarbonising heating and cooling can be delivered. The Heat Academy is a fully independent organisation.

The training courses are designed and delivered along two broad categories

- *Professional Training* focusing on the theoretical aspects of implementing smart energy infrastructure e.g. political, strategic, legal, financial, commercial, technical, leadership and communication/PR. Since the start in 2014, some 5000 professionals Is in 12 markets have participated in training sessions organised by The Heat Academy.
- Vocational Training addressing the practical activities related to design, installation, operations and maintenance of systems. The strategy is to establish collaboration with local universities and colleges, as well as the broader supply chain, thereby speeding up expansion in scope and reach.

The Heat Academy is also initiating and leading collaborative *innovation programmes* involving progressive industry partners in the supply chain, universities and industry organisations. Further to that, an *Professional Learning Programmes* have recently been launched offering trainee programmes and on-site work practice in cooperation with industry partners, e.g. energy operators and contractors.

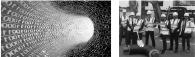
PROFESSIONAL TRAINING >5 000 participants since 2014



VOCATIONAL TRAINING Partnering with local universities/ colleges



INNOVATION Initiating collaborative innovation initiatives



#### APPRENTICESHIPS

Apprenticeships and exchange programmes



#### PARTNERSHIP WITH LOCAL UNIVERSITIES AND COLLEGES



CONTACT

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THE HEAT ACADEMY www.heatacademy.eu

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**Peter Anderberg** – Founder & CEO – Heat Academy and Nordic Heat Stockholm, Sweden

Peter has 20 years of operational management experience in the Swedish and European district energy industry. Specific focus on strategic planning, sales & marketing strategies, business development and training activities. Nordic Heat, a peer-to-peer advisory service, and the Heat Academy, a training and innovation platform, are currently expanding rapidly as more and more countries and cities are actively starting to address the urgent need for decarbonising heating and cooling in order to reach net zero.