

13:55:44 From Jon Legg CACOR to Everyone:

Q: Dr. Walker, you talked about, at the beginning of your talk, two grid alerts. Is the Ontario grid able to simply “dial back” on the demand? If it is not possible, how do the grid managers deal with the pressure of “losing the grid.”

14:05:37 From Art Hunter CACOR to Everyone:

Q: Thermal Network Harvesting - use of storm water/ waste water.

14:09:03 From David Pollock CACOR to Everyone:

Q: What is the current level of political understanding/commitment at a federal or provincial level to Thermal Networks as an approach?

14:12:34 From David Pollock CACOR to Everyone:

Q: What is effect on Great Lakes of current heat dumping?

14:15:58 From Raymond Leury to Everyone:

Q: Given that plants like the Bruce complex are far from large urban centers, how much of the waste heat from Ontario's reactors can reasonably be expected to be useable?

14:22:36 From Raymond Leury to Everyone:

Q: What are your assumptions as to the cost/LCOE of SMNRs for integration into thermal networks? The currently being built reactor in Darlington is expected to produce electricity at 16.6 cents/kWh which is quite expensive.

14:25:34 From Richard van der Jagt CACOR to Everyone:

Q: Does your solution assume ongoing utilization of gas?

14:30:36 From Raymond Leury to Everyone:

Q: Would this be an opportunity for Enbridge to re-use infrastructure and/or transition to cleaner technologies and away from gas?

14:35:17 From Richard van der Jagt CACOR to Everyone:

C: An air source heat pump is 300% efficient and work at temp down to about -30 C.

14:45:55 From Martin Green to Everyone:

C: Waste water can supply up to about 10% of needed heat, which is slightly less than the percentage of heat that is used for hot water.

14:48:49 From Martin Green to Everyone:

C: Air source heat pumps CAN operate at and below -25 C, but their COP drops to 1.5 or less--often less than 1. They also have greatly reduced heat output capacity. From a practical perspective, on average, for heat pumps of average age and typical installation, it is not worthwhile operating ASHPs below -8 C. At lower temperatures, one should assume that GHG-free heat is provided by electric resistance at COP = 1.

14:51:53 From Martin Green to Everyone:

C: In many US states, gas companies are now required to provide heat through community geothermal systems.

14:58:01 From Martin Green to Everyone:

C: I have no detailed info on the impact of heat rejected into Lake Huron from Bruce NGS, other than to know that Bruce Power is concerned.

14:59:42 From Martin Green to Everyone:

C: As far as I know, Enwave is not pursuing political support for large scale thermal networks. Most DE companies in Canada are pursuing low-hanging fruit, which is generally new developments, but thermal networks need to be expanded to most existing buildings.

15:20:26 From Ted Manning CACOR to Everyone:

C: Great presentation. Now if we can just convince people to listen and think holistically.

15:20:55 From Martin Green to Everyone:

C: Economic and Design Optimization in Integrating Renewable Energy and Waste Heat with District Energy Systems (<https://www.iea-dhc.org/the-research/annexes/2011-2014-annex-x/annex-x-project-02>)

15:28:47 From Martin Green to Everyone:

C: For info on the study tour to Europe see <https://bi-ib.ca/wp-content/uploads/2024/06/District-Energy-Digest-No.-8.pdf>