

Presentation to members of the Peterborough County Waste Management Committee

February 13, 13.00 h

Good afternoon Warden Clark, Mayor Senis, members of the Waste Disposal Committee, Ladies and Gentlemen,

First let me thank you for inviting me to speak today. My name is Ray March; I am a Professor Emeritus (which means I am old, and nice to talk to); I was a Professor of Chemistry which can be a great impediment when trying to meet with Earth People. I hope you have found time to scan the material which I sent to Sarah Boyd.

Second, let me tell you of the objective of today's presentation.

Until recently, I have been a part of a team of three persons, all of whom are members of the PETERBOROUGH PROFESSIONAL RETIREES GROUP founded by Bob McRae in about 1980. We were Ed McLellan, Dr. Gordon Powell and I. Alas, Ed died at Christmas; now we are two plus some new interested citizens.

I submitted to you a list of our activities over the past 4 years or so, in the area of Energy-From-Waste. We believe we have a realistic vision in the form of an EFW facility of the same capacity as the functioning unit at the Durham York Energy Centre at Clarington. The capacity of this unit is 200,000 tonnes per year of carbonaceous waste; Clarington is limited at this time to 160,000 tonnes per year.

A facility of this magnitude will accommodate the carbonaceous waste of some 500,000 people in the counties of Hastings, Kawartha Lakes, Northumberland, Peterborough and Prince Edward, and the cities of Belleville, Peterborough and Quinte West. It will permit the closure, and possibly the mining, of old dumps.

At this point we face an enormous difficulty: that of attempting to create a major collaborative program between civic units that have developed as isolated communities resembling ancient castles with high walls and both wide and deep moats.

We want to develop a Feasibility Committee composed of representatives from each civic unit and guided by an experienced professional person.

An extraordinarily skillful leader from one of the civic units is required to persuade the civic units to agree to this (or another) approach, to select their representative, and to apply to the

Federation of Canadian Municipalities for grants to meet the cost of an experienced professional person!!!!!!!!!!

What ideas might you have?

We must not forget the physical background against which this tragedy is playing.

- i. Atmospheric heating due to **continuing emissions** of carbon dioxide (and methane!). Both from Bensfort Road dump.
- ii. Large changes in weather, wind, rain; e.g. derecho of May 21st, rivers of water.
- iii. Carbon composes about 50% of the composition of trees. 2 kg of tree yield 3.6 kg of carbon dioxide.
- iv. Melting of the glaciers producing higher sea levels and flooding of low-level land.
- v. The Rideau Canal Skateway is not yet open; this is the latest opening since 1971.

An advantage of any scheme that can produce electrical power is that hydrogen, Green Hydrogen (or clean hydrogen), can be produced by electrolysis of water. When hydrogen is used as a fuel, the only product is water!

Trials will be held this year in Quebec of a hydrogen-powered fast train, similar to the TGV (Train avec Grande Vitesse) in France. Here the train is powered by hydrogen, not electricity, that can be obtained cheaply from combustion of carbonaceous material in an EFW facility.

Note;

1. Please examine Appendix 2 which shows the probable challenges to be faced by a Feasibility Committee.
2. Please examine Appendix 3 which shows the populations of the eight civic units, percentage populations, and estimated cost of a Feasibility Committee for each civic unit.

Thank you for your invitation,

Sincerely,



Ray March, PhD, DSc, D(h.c.) Professor Emeritus, Trent University.