

ENERGY PROBE INTERROGATORY #4

INTERROGATORY

Issue 1 – New Business Activities

Ref: Exhibit B / Tab 1 / Schedule 1 / p. 8 #23

Preamble: On December 13, 2017, the Ontario government announced new rebates from the GreenON fund for ground source heat pumps (home geothermal). Homeowners will be eligible for rebates of up to \$20,000 for ENERGY STAR certified ground source heat pumps. This will offset the customer's costs under Enbridge's proposed Geothermal Energy Service program.

- a) Given the cited recent government announcement, why is the EGD GESP still required? Please explain.
- b) Please provide a DCF analysis for a typical GES from a homeowner perspective, including the government incentive. Include and discuss the assumptions and provide the resulting payback period.
- c) Please indicate the results of any discussions EGD has held with IESO for a cooperative GES program, using government incentives and potential incentives under IESOs demand management or other programs.

RESPONSE

- a) The Green Ontario Fund will provide:
 - \$2,000/loop ton up to \$15,000 contribution towards the installation of a horizontal closed-loop heat pump system.
 - \$2,000/loop ton up to \$15,000 contribution towards the installation of a horizontal pond closed-loop heat pump system.
 - \$3,000/loop ton up to \$20,000 contribution towards the installation of a vertical closed-loop heat pump system.

Enbridge anticipates that most homes will require 4 tons of system capacity at an average cost of approximately \$28,000 to \$32,000

For example given that the GreenOn subsidy for a 4 ton system will amount to \$12,000, which means that the homeowner will still need an additional \$16,000 to

\$20,000 to cover the full cost of a vertical closed loop heat pump system. A typical natural gas furnace, water heating and electric central air conditioning system will cost approximately \$8,000. This means that the natural gas based system is still significantly less expensive than the vertical closed loop heat pump system even with the GreenOn subsidy taken into account. In this example the Enbridge Geothermal Energy Service would reduce the upfront cost of the geothermal system by about \$12,000 making the geothermal solution much more attractive to the homeowner. The Company maintains that its Geothermal Energy Service proposal is complementary to the GreenOn program and will result in many more homeowners pursuing the ground source heat pump option. The long life nature of the underground geothermal loops makes them appropriate for the Company to own and for the Board to apply a utility model to service fees. Additionally, the Company will own, maintain and implement uniform standards of installation and commissioning.

- b) Please see response to Board Staff Interrogatory #10 c) filed at Exhibit I.2.EGDI.STAFF.10.
- c) The Company has had discussions with GreenOn / IESO about how the Geothermal Energy Service would complement the GreenOn geothermal rebate program. The Company has also discussed with GreenON / IESO regarding how the launch of a new construction rebate program similar to the retrofit market rebate program would increase adoption of geothermal energy systems.