

Independent Study Highlights Environmental Impact of Enercare's Water Purification Systems

A study commissioned by Enercare Inc. (Enercare) and independently carried out by Delphi has revealed the potential environmental benefits of Enercare's water purification systems¹ for households that only drink bottled water.

Plastic Waste Reduction

As part of the study, Delphi looked at the plastic waste that can be avoided by consuming water through Enercare's water filtration and reverse osmosis systems (water purification systems). Based on a daily water intake from home of 0.93 L/person/day, Enercare's water purification systems can help customers substantially reduce their plastic consumption.

Assumptions² & Methodology

To establish a reasonable assumption for daily water intake at home, Delphi adjusted the recommended daily drinking water intake to reflect intake from water rather than other beverages and to reflect intake at home. Delphi then determined the most commonly purchased size of disposable water bottles to be the 500 mL size and examined the characteristics of the 500 mL bottle, such as the average mass of plastic and the mass of a full water bottle.

These assumptions were then used to calculate the average number of water bottles needed per person on

an annual basis and, consequently, the number of bottles avoided per person per year. The total mass of plastic avoided annually by replacing single-use bottled water with Enercare's water purification systems was then calculated.

Study Results

Delphi concluded that switching from bottled water to Enercare's water purification systems could result in **682 plastic water bottles avoided per person per year, or 9 kgs of plastics avoided per person per year.** For a household of 4 people, installing an Enercare purification system could eliminate the use of **2,727 plastic water bottles each year, or 36 kgs of plastic each year.**

Impact over Product Lifespan

Enercare's water purification systems have an estimated lifespan of 15 years once they've been installed in a customer home. For every unit installed, this could result in a total of **up to 39,600 tonnes of plastic avoided after one year,** assuming a household of 4 people.

ANNUAL SAVINGS

2,727

BOTTLES PER HOME*



or 682 bottles per person

36kg

PLASTIC PER HOME*



or 9 kg plastic per person

For more information on the study, feel free to reach out to ESGdepartment@enercare.ca

Sources:

¹ Environmental Benefits of Enercare's Drinking Water Filtration Units", Delphi (163904 Canada Inc.), April 12, 2024.

² Assumptions used in Calculations:

- a) **Recommended daily drinking water intake:** The average recommended daily drinking water intake is assumed to be 2.6 liters per person per day. This is based on National Institute of Health guidelines, adjusting the general intake recommendation for men (3.7 liters) and women (2.7 liters) to reflect water intake specifically, excluding other beverage sources.
- b) **Percent of daily water intake from water:** It is assumed that 51.2% of an individual's daily fluid intake is from water alone, with the remaining intake coming from other beverages. This assumption is based on data provided by the Centers for Disease Control and Prevention.
- c) **Percent of daily awake hours at home:** For this study, it is assumed that individuals spend 70% of their awake hours at home. This assumption was calculated by Delphi, factoring in average time spent at home based on behavioral data.
- d) **Daily water intake at home:** The study assumes that the daily water intake at home is 0.93 liters per person per day. This figure was calculated by Delphi, taking into account the total recommended daily water intake and the percentage of time individuals are at home.
- e) **Average plastic water bottle volume:** The average volume of a plastic water bottle is assumed to be 0.5 liters (500 mL), as this is the most commonly purchased bottle size. This assumption is supported by data from multiple sources, including the National Institute of Health, Tennessee Travel Bottled Drinking Water Consumers, and the Beverage Marketing Corporation.
- f) **Mass of plastic in the average bottle:** The average mass of plastic in a single 500 mL water bottle is assumed to be 13.3 grams. This value is based on estimates from the Department of Environment, Food and Rural Affairs in the United Kingdom.
- g) **Mass of average full water bottle:** The mass of a filled 500 mL plastic water bottle, including both water and plastic, is assumed to be 533.3 grams. This value was calculated by Delphi based on typical water and plastic weights.

* Assuming a 4 person household.