

Encorp Environmental Report

Reduction in greenhouse gas emissions from recycling

In 2008, Encorp collected and had over 86,800 tonnes of material recycled. The energy saved through the recycling of materials collected by Encorp can be converted into tonnes of carbon dioxide equivalent (CO₂e), which is the common measure of greenhouse gases (GHGs), based on the US Environmental Protection Agency's (EPA) Waste Reduction Model. The model calculates net emission reductions based on the average distribution of fuels consumed along the entire lifecycle production process .

In total, Encorp's activities in 2008 contributed to the reduction of about 138 thousand tonnes of CO₂ equivalent being released into the atmosphere, an increase of 12 thousand tonnes compared with the same period of last year.

Greenhouse gas emissions associated with Encorp's stewardship activities

While recycling has an overall net benefit in terms of energy and emissions savings, the recycling process itself does require energy and thus has GHG emissions associated with it. While the EPA's Waste Reduction Model does factor in the typical energy use associated with recycling when estimating net savings, Encorp has committed to specifically estimating the GHG emissions associated with its stewardship activities. By doing so, we hope to identify ways in which we can minimize our environmental footprint going forward and maximize the net benefits to the planet.

Since Encorp is not a manufacturing company, the majority of our associated GHG emissions come as a result of transporting materials as well as heating and powering our network of facilities. Therefore, we define Encorp's GHG inventory boundary from the point that empty containers enter into the Encorp system, at either a depot or retailer, to when the materials are delivered to the end processors for recycling into new products. Emissions were estimated using conversion factors and methodologies developed by the World Resource Institute's Greenhouse Gas Protocol.

As this is Encorp Pacific (Canada)'s first emission report, the period spanning January 1, 2008 to December 31, 2008 will serve as the base year for future reports.

Emissions sources exclusions

Emissions associated with heating and powering the Encorp head office are not included in the GHG inventory since the office is part of a shared lease facility for which heat and power is controlled centrally by the landlord.

Staff commuting to work in personal cars was also excluded, as this is considered to fall under the personal carbon footprint of the employees and Encorp has little control over where people choose to live. However, work will be undertaken to produce travel plans to help reduce this effect under a further scheme.

Staff commuting and travel on BC Ferries was also excluded as it is not quantifiable since BC Ferries does not make the GHG emissions of the ferry fleet available to the public.

Finally, emissions associated with the handling of materials outside of Encorp's core stewardship activities, such as milk cartons and electronics, were excluded since such activities fall out of the scope of Encorp's core recycling stewardship activities for BC.



Emissions inventory summary

Type of Emission	tonnes CO ₂
Direct emissions are emissions from sources that are owned or controlled by Encorp	
Employee travel - gas use	29
Indirect emissions occur as a consequence of the activities of Encorp, but are from sources not owned or controlled by Encorp. Inclusions are emissions from purchased electricity consumed by Encorp offices, depots, processors and transporters, as well as the transportation of the beverage containers by contracted transporters.	
Offices (excluding head office)	
Purchased electricity in leased buildings (excluding head office)	23
Employee domestic air travel	9
Depots	
All purchased electricity in owned or leased buildings	686
All natural gas consumed in owned or leased buildings	1,665
Processors	
All purchased electricity in owned or leased buildings	385
Transportation – depots to processors	
Diesel fuel for transporters	3,467
Transportation – processors to end markets	
Diesel fuel	1,675
Rail (based on metric tonne km)	443
Sea travel (based on metric tonne km)	140
Total Emissions all sources	8,522

Future emissions reduction strategies

As we work to increase fuel efficiency and reduce our energy costs, we realize that we have to look beyond just the trucks themselves. To be truly effective, we must take a holistic approach to our entire logistics operation – including the supply chain. For instance, we know that if we reduce the amount of air we are transporting by compacting the containers, and get more containers on board each truck, we reduce loads, trucks, fuel burned and emissions. Optimizing our transportation network can potentially reduce the kilometres we drive and loads we haul, also saving fuel and reducing emissions.

*US EPA, Waste Reduction Model, Version 8 (5/06); US EPA, Solid Waste Management and Greenhouse Gases (2002). Exhibits 2-3 to 2-6.

