# Deltera Measures Construction-Related Emissions to Set Reduction Targets

**Mantle's expertise with embodied emissions allowed Deltera to measure—and reduce—the impact of their portfolio of over 20 large multi-family condominium buildings.**

## CHALLENGE

**Deltera is a construction management company specializing in the development of high-rise rental and condominium buildings. Deltera is a member of the Tridel Group of Companies, the largest builder of condominiums in the Greater Toronto Area.**

**One of Deltera's priorities is reducing GHG emissions, and in particular, embodied emissions.**

**"Embodied emissions" refers to the upfront carbon from:**
a) the production and transportation of materials; and
b) construction processes.

Because Deltera is involved in large-scale construction, their embodied emissions are more significant than for companies in many other industries.

**Deltera engaged Mantle to answer the following questions:**

1. What data do we need to collect to measure GHG emissions?
2. What is our baseline carbon footprint, including scope 1, 2 and 3 emissions?

## APPROACH

**Before engaging Mantle, Deltera had not been tracking emissions. The big challenge, therefore, was figuring out the best way to *estimate* GHG emissions—and embodied emissions in particular—with the available data.**

Working closely with Deltera, Mantle devised the following approach to collect the data:

- **Scope 1 and 2 emissions:** This included only their head office use of gas, electricity and refrigerants.
- **Scope 3 emissions:** This was based on what was most material to Deltera and what they could actually report on—capital goods, waste, employee commuting, and use of sold goods.

**For a developer, capital goods are the greatest contributor of emissions.**

To estimate these, Mantle used a hybrid approach:
a) material quantities for concrete and rebar
b) spend-based figures for all other materials.

**All data was fed into One Click LCA to estimate Deltera's total embodied—or construction-related—emissions.**

MANTLE
—CLIMATE—

*This baseline study will guide our ESG Leadership team in identifying opportunities for emissions reduction so that we may set and publish targets that will allow us to reach our goal of net zero.*

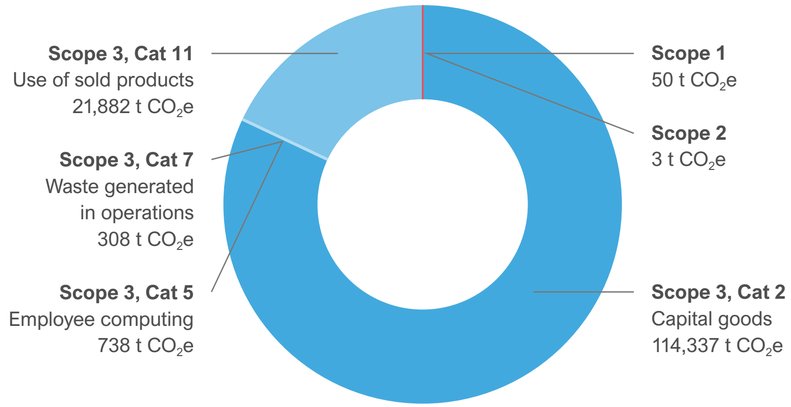
**— 2023 ESG Report**

## RESULTS

**With Mantle's expert help, Deltera was able to first determine its baseline GHG emissions.**

**Baseline: 2022 Total GHG Emissions**
Scope 1: **50 t CO2e**
Scope 2: **3 t CO2e**
Scope 3: **137,265 t CO2e** (mostly Cat 2 – Capital Goods and Cat 11 – Use of Sold Goods)

**Emissions: Detailed Analysis**




Delterra then set targets to reduce its scope 1, 2, and select 3 GHG emissions. The targets were published in Deltera/Tridel's second annual ESG report.

**More importantly, the inventory and targets have informed Deltera's decisions around design and material selection.**

For example, the baseline inventory indicated that Deltera should put effort and resources into reducing Scope 3 emissions created from capital goods

**To help address this, Deltera and Mantle co-hosted a workshop with key suppliers.** The purpose of the workshop was to review Deltera's targets and identify potential solutions to enable Deltera to more accurately measure and reduce its embodied emissions.

**Solutions included:**
- using low carbon alternatives
- submitting environmental product declarations (EPDs)
- incorporating sustainable building designs.

**As embodied carbon becomes an increasingly important metric, developers are continuing to improve how they track key data points, such as material quantities, points of origin, and environmental product declarations (EPDs).**