



## CalRecycle Commercial Climate Calculator: Frequently Asked Questions

### What are the benefits of using this calculator?

- Better understand your business' trash and its impacts - including cost, volume, and environmental impact.
- Estimate the results of reducing and recycling your trash. Recycling may provide opportunities for your business to save money. Recycling helps conserve resources and extends the life of California's landfills. It also helps create a healthy environment for our community and future generations.
- [Chapter 476, Statutes of 2011 \(Chesbro, AB 341\)](#) requires all businesses and public entities that generate four or more cubic yards of waste weekly and multifamily complexes of five or more units to recycle. This tool can help you start a recycling program or expand your recycling program.
- Share a customized one-page report with customers or management that highlights current programs and future opportunities to reduce your trash.
- Access dozens of free resources to start new programs today.

### I don't have a recycling program. Is this calculator for me?

Yes. The calculator is designed for all types of users, including those without recycling programs. All you need is a computer, access to Microsoft Excel software, and basic information about your business, such as the number of employees, geographic location, and commercial sector.

### What if I don't have any information about my trash and recycling?

No problem. Just enter five basic pieces of information about your business: 1) business name, 2) number of employees<sup>1</sup>, 3) the county in which the business is located, 4) sector, and 5) whether your business currently has a recycling program. Default trash and recycling information will automatically appear based on your business profile. You can then use this information to determine what future potential your business has to further reduce or recycle your trash.

### Can I save my own copy of the Commercial Climate Calculator on my computer?

Yes! Any user with the Microsoft Office Suite should be able to easily download this MS Excel workbook onto their computer. Some of the benefits of saving the file to a computer are that it allows the user to come back and fill in missing data later, share information in the calculator with others, and trend future progress for their organization.

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<sup>1</sup> Multifamily complexes instead provide number of units and event venues enter visitors per year.



**I represent a government agency, recycler, or other organization that provides business waste reduction and recycling support services. How can I use this calculator to better serve businesses in my community?**

This calculator is designed for a wide variety of users, including third parties that provide related services to businesses. One specific feature that is intended to assist you can be found in the “Custom\_Rates” spreadsheet where you can enter customer costs for various levels of trash, recycling, and organics services in your community. In addition, the calculator is designed to help you illustrate the business and environmental benefits associated with waste reduction and recycling in a way that is compelling and easy to communicate to the typical business. The customized one-page report will be particularly helpful for you to share the calculator results with a business.

**Which greenhouse gas emissions factors does this calculator use?**

The calculator uses California-specific greenhouse gas emissions factors developed by the California Air Resources Board along with information from the U.S. EPA’s Waste Reduction Model (WARM). CalRecycle will update these factors as well as other source data used in the calculator as better data become available.

**I already track or report my trash and recycling levels. Why would I use this calculator?**

The primary goal of the Commercial Climate Calculator is to evaluate future potential, not current waste or recycling levels. It helps you examine and compare the relative diversion, financial, and climate impacts associated with different waste handling strategies at your business.

**How is this calculator different than U.S. EPA’s WARM or WasteWise Tool?**

[U.S. EPA’s WARM](#) helps solid waste planners estimate climate impacts of different trash handling strategies. It requires that you know how many tons of each material will be transferred between handling strategies as a result of future actions.

The WasteWise [Waste Reduction and Buy Recycled Tracking Tool](#) helps businesses track tons, cost, and greenhouse gas emissions reductions from existing programs. Like WARM, it requires that you know current tonnage.

**The Commercial Climate Calculator combines elements of these two tools and provides additional features.** It provides current and future estimates of your business trash and recycling volumes, costs and greenhouse gas emissions. If you do not know your actual current or future waste or recycling tonnages, cost, or composition, the Commercial Climate Calculator will estimate it for you. In addition, it includes:

- Some California-specific waste, cost, and greenhouse gas emissions estimates, and
- An interactive results page that works for any California business.

**Can I revise the assumptions in the calculator?**

Yes. The calculator is designed to be transparent; you can see all of the assumptions, data, and data sources that underlie the calculations on the [Background\\_Data](#), [Cost\\_Data](#), and [Waste\\_Data](#) pages. The calculator will use your revised data instead of the default data, if you enter your own data on previous pages (e.g. actual tons of waste, actual cost of recycling). If you would like to use other default data for waste or recycling densities, costs, quantities, or emission factors, you may enter your own data on this page.



### **I am a manufacturer; why isn't my recycling showing up?**

The calculator uses industry averages to calculate the default recycling information. Because the manufacturing sector varies so greatly in the amount they recycle, the calculator does not have valid averages for this sector. If you are a manufacturer and currently recycle, you can still use the calculator, but you will need to complete a few additional steps:

1. On the Current\_Recycling tab, enter your recycling amount using either "Have information on number of containers and pickups" or "Have actual recycling amount from bills."
2. If you have mixed recycling (all your recycling materials go in one bin), you will also need to take these steps:
  - a. Enter your cost using "Have actual cost from bills" on the Current\_Recycling tab in Step 3.1b.
  - b. Enter what materials are in your recycling by weight in Step 3.1c. Please make sure to enter the new makeup of your recycling so that the percentages by material by weight add up to 100 percent. Note that you will not be able to enter the makeup by volume.
  - c. Enter the density (pounds per cubic yard) of your mixed recycling in cell H21 of the Background\_Data tab if you enter your mixed recycling amount (in Step 3.1a) in volume (cubic yards, gallons) rather than weight (pounds, tons).
    - i. The density of mixed recycling varies greatly depending on what materials are in it. Typical mixed recycling density factors range from 50-200 pounds per cubic yard. Use the material specific density factors in the Background\_Data tab and look at what makes up your recycling to estimate your density.

### **I operate a small hotel; why isn't my recycling showing up?**

The calculator uses industry averages to calculate the default recycling information. Unfortunately, the calculator does not have valid averages for small hotels. If you operate a small hotel and currently recycle, you can still use the calculator, but you will need to complete a few additional steps:

- Your first option is to select "Hotels-Large" instead of "Hotels-Small." The calculator has recycling defaults for large hotels, so this might be your easiest option. Otherwise, do the following:
- On the Current\_Recycling tab, enter your recycling amount using either "Have information on number of containers and pickups" or "Have actual recycling amount from bills."
- If you have mixed recycling (all your recycling materials go in one bin), you will also need to take these steps:
  1. Enter your cost using "Have actual cost from bills" on the Current\_Recycling tab in Step 3.1b.



2. Enter what materials are in your recycling by weight in Step 3.1c. Please make sure to enter the new makeup of your recycling so that the percentages by material by weight add up to 100 percent. Note that you will not be able to enter the makeup by volume.
3. Enter the density (pounds per cubic yard) of your mixed recycling in cell H21 of the Background\_Data tab if you enter your mixed recycling amount (in Step 3.1a) in volume (cubic yards, gallons) rather than weight (pounds, tons).
  - i. The density of mixed recycling in large hotels is 93 pounds per cubic yard. Your density may be anywhere between 50-200 pounds per cubic yard, depending on the composition of your recycling.

**Schools, hotels, and other facilities with many non-employee users should use # of FTE's, not number of students, in the calculator.**

- All quantities (except venue visitors and multifamily units) are tied to number of employees, not hotel guests or students or prisoners. The general idea is that the number of employees should scale with the number of other people who are at that facility.

**The expected recycling cost in the calculator differs from the quote I received from my recycler. Can I enter the known future recycling cost in the calculator somewhere?**

No, the calculator only allows you to customize “before” costs. Once you know your expected recycling costs, you will need to conduct your own final cost-saving analysis outside of the Calculator.

**Which business sector should be used for the following examples?**

- A K-12 school: use *Services – Education*;
- Shopping centers: use one of the Retail codes depending on store mix;
- A ski resort: use “Services – Other Misc.”

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The calculator uses ARB’s compost emission reduction factor, which is 0.42 MTCO<sub>2</sub>E/ton of feedstock.

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If a business has the specific rates that a hauler charges in their community and would like to customize the rates in the calculator, go to the worksheet tab “9.CustomRates” to input the custom rates. Follow the directions on the worksheet. You can customize rates for solid waste collection, recycling collection, and organics collection. There is a box associated with each of these rates. Be sure to check the box under the appropriate monthly rate sheet, so that the calculator will use your customized rate for the calculation.

For more information or assistance please contact your Local Assistance and Market Development liaison at (916) 341-6199 or

<http://www.calrecycle.ca.gov/LGCentral/Reports/Contacts.aspx>.