Instruction To The Generator ID Tool

The purpose of this tool is to help you identify which businesses in your jurisdiction meet the threshold for mandatory commercial organics recycling. This tool provides an estimate of how many employees it takes to generate 8 cubic yards or 4 cubic yards of organics/week for different business types, and explains how you can obtain specific business information for your jurisdiction to see which meet that threshold.

1. The following information is provided as an explanation of how the table was developed. You do not need to read or fully understand it. It is provided for those that would like to know more, or those that would like to use their own data to develop a localized generator ID tool. If you simply want to learn how to obtain your local business information and how to apply that to the final table, please skip to part 2 on page 3.

   a. **Background definitions**

      i. Business Groups – different business types generate different amounts of organics – compare a restaurant to a car dealership. CalRecycle has developed a list of business groups to use for waste characterization studies, to gather data on waste patterns for each group. Businesses are classified based on the North American Industry Classification System (NAICS) and grouped according to similarities in waste streams. For example, restaurants are in one group – they generate waste differently from most other types of businesses. Finance, insurance, and legal businesses are grouped together because they are office-type businesses and generate waste in similar ways.

      ii. Waste Composition Data – this provides information on the types and amounts of waste a business generates, such as the amount of food waste or office paper. For example, the waste generated by retail food stores contains about 52% cardboard and about 30% food. For businesses in the Durable Wholesale and Trucking category, the waste generated contains about 42% ferrous metal and about 21% cardboard. Data is collected by taking samples of waste and recyclables at business sites and sorting them into various material types, and weighing each type. Data from many sites is aggregated to get the profile for the business group.

      iii. Waste Generation Rate Data – this estimates the overall amount of waste generated by a business type, on a per-employee basis. For example, food stores generate about 195 pounds of total waste per employee per week (including diversion). Data is collected by measuring total amounts of disposal and recycling set out by businesses. Again, data from many sites is aggregated to get the profile for the business group. Note: for the 2014 Waste Characterization Study, waste compositions and generation rates for each business group were developed using number of employees based on Full-Time Equivalent (FTE) employees. This is believed to be a more consistent basis for predicting a business's waste pattern. However, for ease of use, generation rates using the basis of total employment (number of full and part time employees) are used in this tool.

      iv. Organic Material Types – these include food waste, yard waste, and most types of wood waste. These material types are defined for the waste characterization study (see Appendix B).

v. <u>Conversion Factors (Density Data)</u> – this data converts materials from pounds to cubic yards (see Appendix C).

b. **Calculating amounts of organics generated**

The number of employees needed to produce 8 cubic yards at a type of business can be calculated by using three steps. First, you need to find the percent of organic materials in the waste stream at that type of business. Second, you need the total amount of waste generated (on a per-employee basis) for the business type. Last, with some rearranging, you can solve for the number of employees that produce the required amount of organic material per week at that business type.

Example: Waste from food stores contains 30% food, 1% yard waste (leaves and grass), and 4% wood waste. Food stores generate 195 pounds of total waste per employee per week (including diversion). (CalRecycle 2014 study – see below).

<u>Food waste</u>
195 pounds total waste X 30% food = 59 pounds of food waste per employee per week
Food weighs on average 500 pounds per cubic yard
59 pounds ÷ 500 pounds per cubic yard = 0.118 cubic yards of food waste per employee per week

<u>Yard waste (Leaves and Grass)</u>
195 pounds total waste X 1% yard waste = 2 pounds of yard waste per employee per week
Leaves and Grass weighs on average 250 pounds per cubic yard
2 pounds ÷ 250 pounds per cubic yard = 0.008 cubic yards of yard waste per employee per week

<u>Wood Waste</u>
195 pounds total waste X 4% wood waste = 8 pounds of lumber per employee per week
Lumber weighs on average 500 pounds per cubic yard also
8 pounds ÷ 500 pounds per cubic yard = 0.016 cubic yards of wood waste per employee per week

<u>Total organics generated</u>
0.118 + 0.008 + 0.016 = 0.14 cubic yards (rounded) of total organics per employee per week
8 cubic yards per week ÷ 0.14 cubic yards per employee per week = 57 employees needed to generate 8 cubic yards of total organics per week.

Total waste generated includes materials both disposed and diverted. All data is from CalRecycle report *2014 Generator Based Characterization of Commercial Sector Disposal and Diversion in California*, unless otherwise noted.

This tool provides the above calculations for each business type in a table format using state-wide averages. If your jurisdiction's businesses feel they generate exceptionally different amounts of organic waste, you could go through this process after gathering waste characterization study data for your jurisdiction.

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2. **Identifying which businesses in your jurisdiction meet the threshold by business type**
    a. **Obtaining Data on Your Local Businesses – Sources of Information**
        i. Local business license or other local database that you might have that contains employment data for each business in your jurisdiction, including self-reporting from businesses
        ii. California Employment Development Department (EDD) Labor Market Information Division (LMID) – use the "Employer by Geographic Area" to get lists of businesses by jurisdiction, according to employment size ranges (See **Appendix A** for help on navigating this site).
        http://www.labormarketinfo.edd.ca.gov/aspdotnet/databrowsing/EmpGeog.aspx?menuChoice=emp&searchType=Geography
        iii. Private Sources of Business Data – ReferenceUSAgov, Dun & Bradstreet, others
    b. **Match the businesses in your jurisdiction to the business types provided**
        i. Using one of the methods above, create a list of businesses in your jurisdiction, identify the type of business, and identify the number of employees.
        ii. The Generator ID Tool includes a table of business types, their associated 3-digit NAICS code, and the likely number of employees for that type to meet the MORe threshold. Using this table and your knowledge of the business gathered in part i above, match your businesses with the appropriate 3-digit NAICS code in the table.
        iii. Compare the number of employees at your jurisdiction's businesses with the required number to produce the threshold amount of organics, and flag those that exceed the required number. This is your list of businesses that must start organics recycling.

Example:

Business name	# of employees	Business Type (using the 3 digit NAICS code)	# of employees needed to produce 8 cu yd of organics per week by business type
Store A	60	Food store	57
Store B	60	Restaurant	102
Store C	232	Retail, clothing store	197

↑

This data comes from the Generator ID Tool (calculated in part 1)

You identify 3 businesses in your jurisdiction, and find that they have the shown number of employees. You find that the 3 businesses are a food store, a restaurant, and a retail clothing store. When you look up those business types from the CalRecycle table, you find that the required number of employees for each of those business types is 57, 102, and 197, respectively. Because your food store, "Store A", has 60 employees, they likely produce more than 8 cubic yards of organics per week and meet the threshold for needing an organics recycling program. Likewise, "Store C" has more employees than 197 (they have 232), so they must start an organics recycling program. In this example, "Store B" likely does not produce the required 8 cubic yards of organic material, however, you may still want to contact them to see if they meet the threshold just in case.

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The table you will use to identify the estimated number of employees to generate organic waste at or above the threshold for each business type is provided below.

Business Type by Group	Employees to reach 8 CY organics per week	Employees to reach 4 CY organics per week
1 Arts, Entertainment & Recreation Gambling, Recreation, Amusement Museums, Historical Sites & Similar Performing Arts & Spectator Sports	74	37
2 Durable Wholesale & Trucking Couriers and Messengers Durable Goods Wholesalers Postal Service Truck Transportation Warehousing and Storage	185	93
3 Education Educational Services	570	285
4 Hotels/Lodging Accommodation	140	70
5 Manufacturing - Electronic Equipment Computer and Electronic Products Electrical Equipment and Appliances	593	296
6 Manufacturing - Food; & Nondurable Wholesale Beverage and Tobacco Products Food Manufacturing Nondurable Goods Wholesalers	92	46
7 Manufacturing - All Other Apparel Manufacturing Chemical Products Fabricated Metal Products Furniture and Related Products Leather and Allied Products Machinery Misc Manufacturing Nonmetallic Mineral Products Paper Products Petroleum and Coal Products Plastics and Rubber Products Primary Metal Mfg Printing and Related Support Activities Publishing Industries, except Internet Textile Mills Textile Product Mills Transportation Equipment Wood Products	705	352
8 Medical/Health Ambulatory Health Care Services	573	287

Hospitals		
Nursing and Residential Care Facilities		
9 Public Administration	1116	558
Public Administration		
10 Restaurants	102	51
Food Services and Drinking Places		
11 Retail Trade - Food & Beverage Stores	57	29
Food and Beverage Stores		
12 Retail Trade - All Other	197	99
Clothing and Clothing Accessories		
Electronics and Appliance Stores		
Furniture and Home Furnishings		
Gasoline Stations		
General Merchandise Stores		
Health and Personal Care Stores		
Misc Store Retailers		
Motor Vehicle and Parts Dealers		
Nonstore Retailers		
Sporting Goods, Hobby, Books, Music		
13 Services - Management, Administrative, Support, Social	85	42
Administrative and Support Services		
Electronic Markets, Agents, Brokers		
Management of Companies and Enterprises		
Religious, Civic, Professional & Similar		
Social Assistance		
14 Services - Professional, Technical, Financial	153	77
Broadcasting, except Internet		
Credit Intermediation & Related		
Data Processing, Hosting and Related		
Financial Investment & Related		
Funds, Trusts, Other Financial Vehicles		
Insurance Carriers & Related Activity		
Lessors of Nonfinancial Intangible Assets		
Monetary Authorities - Central Bank		
Other Information Services		
Professional and Technical Services		
Real Estate		
Rental & Leasing Services		
Telecommunications		
15 Services - Repair and Personal	275	138
Personal and Laundry Services		
Repair and Maintenance		
16 Not Elsewhere Classified	118	59
Agric and Forestry Support Activities		
Air Transportation		
Animal Production		
Building Materials and Garden Supplies		

Crop Production
Fishing, Hunting and Trapping
Forestry and Logging
Mining, except Oil & Gas
Motion Picture and Sound Recording
Oil & Gas Extraction
Pipeline Transportation
Rail Transportation
Scenic and Sightseeing Transportation
Support Activities for Mining
Support Activities for Transportation
Transit & Ground Passenger Transport
Utilities
Waste Mgmt and Remediation Services
Water Transportation

Appendix A

This appendix is provided to guide you through how to use the EDD website to look up how many employees are at each of your businesses in your jurisdiction. You can type out the link provided on page 3, or follow the steps below.

1. Visit [Employer by Geographic Area](#) by clicking the link.
2. Select your county for your jurisdiction.
3. Decide which industry sector you wish to start with, or identify the industry sector of the specific business you have in mind. For example, your list of businesses may start with restaurants. In that case, select Sector 72 "Accommodation and Food Services". Another approach may be that you wish to look up "John's Grocery Store" in your jurisdiction. In this case, you would select Sector 44 "Retail Trade". You might want to select each sector to see which groups fall into each.
4. Select the NAICS industry group you are searching for. Continuing the example above, if you were searching for restaurants, you would select Group 7225 "Restaurants". If you were searching for "John's Grocery Store" you would now select Group 4451 "Grocery Stores".
5. After clicking "View Employer List" when you have selected the appropriate Group for your search, you will see a list of businesses in your geographic area that falls under that Group. You can click on the up and down arrows next to Name, City, or Industry to sort the list by those categories, if you wish.
6. Click the business that you want, and you will see some specific information about that business. "Employer Size Class" should be the second-to-last category, and will tell you about how many employees work at that business. You should note the upper range (larger) number. This is because when you are matching these businesses to the CalRecycle table, if the required number of employees to generate 8 cubic yards of organic waste is somewhere in the middle of the range, that business meets the threshold for mandatory commercial organics recycling. By noting the larger number on your list, you will guarantee that you are identifying the required businesses.
   a. Example: You looked up "Imaginary Grocery Store" in your jurisdiction, and you found the EDD database listed the number of employees as being 20-49 employees for this restaurant. Referring to the CalRecycle table, you see that the required number of employees for the "food store" business type, which includes grocery stores, is 36 or more employees. You should mark "Imaginary Grocery Store" as meeting the threshold for mandatory commercial organics recycling.
7. You can continue your search by selecting "New Search", or go "Back" to look up more businesses within the Group you have identified.

Appendix B – Organic Material Types List and Definitions

From CalRecycle's 2014 Waste Characterization Study

Food means food material resulting from the processing, storage, preparation, cooking, handling, or consumption of food. This type includes material from industrial, commercial, or residential sources. Examples include discarded meat scraps, dairy products, egg shells, fruit or vegetable peels, and other food items from homes, stores, and restaurants. This type includes grape pomace and other processed residues or material from canneries, wineries, or other industrial sources.

Leaves and Grass means plant material, except woody material, from any public or private landscape. Examples include leaves, grass clippings, plants, and seaweed. This type does not include woody material or material from agricultural sources.

Prunings and Trimmings means woody plant material up to 4 inches in diameter from any public or private landscape. Examples include prunings, shrubs, and small branches with branch diameters that do not exceed 4 inches. This type does not include stumps, tree trunks, branches exceeding 4 inches in diameter, or material from agricultural sources.

Branches and Stumps means woody plant material, branches, and stumps that exceed 4 inches in diameter, from any public or private landscape.

Clean Dimensional Lumber means unpainted new or demolition dimensional lumber. Includes materials such as 2 x 4s, 2 x 6s, 2 x 12s, and other residual materials from framing and related construction activities. May contain nails or other trace contaminants.

Clean Engineered Wood means unpainted new or demolition scrap from sheeted goods such as plywood, particleboard, wafer board, oriented strand board, and other residual materials used for sheathing and related construction uses. May contain nails or other trace contaminants.

Clean Pallets and Crates means unpainted wood pallets, crates, and packaging made of lumber/engineered wood.

Material types such as compostable paper and other wood waste that were sorted in the study were not included since those types contain materials and items not included in the statutory definition of "organic waste".

Appendix C – Organic Material Types Bulk Density Values

Material Type	Bulk Density, lb/cubic yard
Food	500
Leaves and Grass	250
Prunings and Trimmings	300
Branches and Stumps	350
Clean Dimensional Lumber	500
Clean Engineered Wood	500
Clean Pallets & Crates	500

Source: based on internet research, data from a California field study, and the knowledge and expertise of CalRecycle staff to determine average density values.