
Wasted life

Residential Food Scraps Pick Up Services

NON PROFIT ORGANIZATION

WE ARE STUDENTS AT THE UCLA SUSTAINABILITY PROGRAM, SUBMITTING A NEW START UP IDEA FOR A SERVICE TO IMPROVE EXISTING PROGRAMS FOR THE WASTE, RECYCLING AND ENERGY INDUSTRY.

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Part One - Overview

Since 2010, approximately 40% of food produced in the U.S. is wasted - over 34 million tons each year. Currently, less than 3% of this waste is diverted for beneficial purposes; this refuse is a huge environmental, social and economical resource that can inspire new business opportunities. With a growing environmentally friendly mindset, composting is becoming a common way to manage organic waste and produce usable products. Although there are some existing models in the field, our vision is to **take organic waste separation to the next level and provide a custom service to pick up food scraps from residential homes**, that cannot manage their own compost nor have a program in their city. By developing services that provide smart and simple solutions, we believe our society can move forward with solving waste issues.

Our program aims to solve these problems:

1. **Help with archiving zero waste goals and policies:** (SB 1383) By separating and composting food waste, we can support entities to achieve zero waste goals.
2. **Capture methane emissions:** 50% of the food waste that is diverted from landfills to anaerobic digesters could generate enough power to serve more than 2,500,000 homes annually. Thus, we can produce renewable energy and **reduce climate emissions**.

3. **Sustainability education:** encourage our customers to learn about the importance of separating waste from landfills.
4. **Support local communities:** by creating compost hubs and urban farms we can return nutrients to the local environment and help create local jobs.
5. **Time and effort:** Many people do not have the time nor effort to maintain their own composter. Our service can facilitate a clean, easy and odorless option for composting.

Part Two - What and How

Wasted life is a vision of new business forms that are based on **Environmental- Equity- Economical** view. By facilitating a service that picks up food scraps from residential houses, we are able to develop a business that is based on **Circular economy**.



Our vision for the business:

- Monthly Subscription (minimum \$20 paid monthly/yearly)
- Custom counseling based on survey
- Calculate your food consumption and waste
- Provide a custom bin (three different options)
- Weekly pick up schedule
- Monthly gift of a plant, soil package or eggs

Compost Models

We manage food scraps for you:

Our composting plan is designed efficiently based on budget, location and permits.

1. **Waste To Energy:** Invest in a compost facility that converts methane emissions to energy.
2. **Local Collaborations with Urban Farming:** By collaborating with local community gardens and “compost hubs” we can treat organic waste locally and reduce carbon emissions on transportation. The composting process will be by improving the bin systems and feeding food scraps to chickens. Additionally, we can support community projects by providing gardening education and creating a greenhouse for our monthly plant gifts.
3. **Anaerobic digesters:** best for handling organic waste streams with high moisture content. We can transport organic waste to the local facility.

Part Three - Resources Requirement

Wasted life is asking for a \$2,000,000 investment in some upfront capital goods and the first 6 months of operational costs. **Capital goods are for bins, pickup/delivery vehicles for the initial service area, & storage space.**

Bins will be provided upfront for each of the first 5,000 homes that signs up for the service at no upfront cost to the customer. These bins will serve a dual purpose of in-home collection and curbside pickup. Each bin will be odorless, so as to maximize its in-home appeal to

the customers. Each bin will cost approximately \$25 - after the first 5000 homes, this cost will shift onto the customer.

Additionally, Wasted Life will need investment in 5 collection trucks for the initial service area at a cost of. Each pickup/delivery vehicle will be an BYD 8R Battery Electric Refuse Truck (costing ~\$300,000), which features a 76 miles range and 18,000 lb payload. Compared to standard trucks, each would save approximately \$13,000 of operational cost annually based on service routes of 60 miles per day/five days a week (according to the manufacturer).

The operational costs for the first 6 months are employees: 10 x full-time garbage collectors (~\$200,000), 2 x part-time collectors for redundancy (~\$20,000), 1 x sales staff (~\$25,000), & 1 x administrator (~\$40,000). Additionally, the company will need to pay for insurance, storage space for the trucks, & electric charging.

Part Four - Potential partnership

The following organizations, facilities and businesses are potential partners that can help to promote our mission and process materials (compost). Since the pilot program will take place in Los Angeles county, the following partners will be from that area.

LA Compost : community compost hubs all throughout L.A. County. These hubs range from schools, museums, and community gardens. They keep organics in the community and create a shared space where individuals can come together to learn and ultimately be a part of something bigger than their individual self.

Kiss The Ground: Organization that supports and promotes composting through education and social media. The collaboration can take part in promoting, educating and expanding the program to different types of communities.

LA County sanitation districts: Created a Digestive facility to treat food scraps. Currently working with Waste Management and optional to expand and receive more food waste that is converted to fertilize and energy.

Anaergia: A leader in the production of clean energy, fertilizer and recycled water from organic waste streams, and offers the widest range of anaerobic digestion technologies.

CR&R Incorporated environmental services: Invested in an advanced organics processing technology known as Anaerobic Digestion. This technology has enabled CR&R to produce a

clean Renewable Natural Gas that is being created from the organic waste that is being captured throughout CR&R's collection network.

LA Community Garden Council: The Los Angeles Community Garden Council (LACGC) partners with 42 community gardens in LA County to take care of the business side of gardening and give you more time to get dirty in the garden

Part Five - Ideal End State: Circular Economy

Revenue Growth: Customer base growth driven by merchandising and branding, as we provide high quality and custom design of our compost bins, monthly gifts and personal customer care. Initially, our services and products would be branded as a premium product, but would expand into lower price points once economies of scale are achieved.

Customer growth would initially happen areas in surrounding our waste management partners in urban & suburban California. Eventually, Wasted Life will out grow these partnerships with independent waste facilities and open our own in-house facilities. These facilities would expand revenue streams by capturing and selling any methane produced, simultaneously getting government incentives for recapturing.

Finally, Wasted Life would expand into other states if/when those states enact similar legislation requiring home food waste management.