

Adirondack Compost Facility Warren County, NY

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EXECUTIVE SUMMARY

We have come together to facilitate the development of a food waste composting facility utilizing aerated static windrow with air-floor aeration systems (ASP). The use of this technology is vital in our business plan as it accelerates the composting process, decreasing the turnaround time to roughly 30 days instead of the industry norm of 90-270 days. We will maneuver to divert compostable solid waste from going to a landfill, by building a circular business model that repurposes what may be considered waste, into nutrient dense compost for agricultural, landscape, and gardening end uses.

COMPANY MISSION:

Our mission is to promote a more environmentally conscious public, by providing education and using a circular business model to divert organic waste from the landfill and incinerator and repurpose it for use in agricultural, landscaping, and home gardening applications.

THE PROBLEM AND OUR TARGET AUDIENCE:

The push to decrease landfill waste at the local and state level is creating demand for an expansion of recycling into food waste. Our target audience are the residential, commercial, and food processing sectors that generate food waste, which can be transformed into compost.

In the United States alone, food waste is the second largest category of municipal solid waste (MSW) sent to landfills and incinerators, accounting for approximately 18% of the waste stream (EPA) in 2010. Americans generate more than 34 million tons of wasted food annually, only 3% of which is diverted for composting. Organic materials constitute the largest single component of MSW. According to the U.S. Composting Council, approximately 72% of the municipal waste stream going to landfills is organic (6% wood, 7% textiles/leather, 13% yard debris, 12% food scraps, 34% paper). Currently, composting sectors are a \$35.97 billion dollar global industry.

To assist in the diversion of organic waste from landfills, we seek to position ourselves to accept organic waste materials from businesses, institutions, and the residential sector in Warren, Washington, Saratoga and Essex Counties in New York State. Services will initially be offered to those facilities identified by NYS Department of Environmental Conservation (DEC) as large food waste producers required to comply with New York State Food Donation and Food Scrap Recycling Law, Title 22, which requires that by January 1, 2022, all generators who produce 2 tons per week or more must donate excess food, where possible, and then recycle all inedible food scraps if located within 25 miles of an organics recycler. DEC has identified ten Food Wholesale & Distribution businesses that meet the 2-ton threshold located within 25 miles of our proposed compost facility location. We will target all ten in the initial phase of the facility's operation, with the intention of expanding the base to include a number of restaurants as well as colleges the following year.

THE SOLUTION:

Our composting facility will generate two revenue streams: 1) tipping fees from food waste generators, as is customary in this industry; and 2) sales of finished compost. There is also potential to sell bagged compost and value-added products such as a compost-based potting mix, for instance. Using ASP technology, our time required to produce compost will be short, just 30 days. Initially, we will strictly sell bulk compost by the yard. The first year in operation will have much lower revenue because the business will start with a pilot program. Once the pilot is working smoothly and effectively, the number of modules of the ASP will be expanded to meet the additional demand.

FINANCIAL HIGHLIGHTS:

| 3-Year Revenue & Expense Summary | | | | | | |
|---|---------------|---------------------|---------------|---------------------|---------------|---------------------|
| | Year 1 | | Year 2 | | Year 3 | |
| Gross Revenue | \$ | 133,415.00 | \$ | 133,415.00 | \$ | 133,415.00 |
| Operating Expenses | | | | | | |
| <i>Capital/Material Expense</i> | \$ | 350,960.12 | \$ | - | \$ | - |
| <i>Employee Salary</i> | \$ | 66,089.85 | \$ | 66,089.85 | \$ | 66,089.85 |
| <i>Accounting/Administrative/Tax</i> | \$ | 2,500.00 | \$ | 2,500.00 | \$ | 2,500.00 |
| <i>Misc.</i> | \$ | 12,340.83 | \$ | 12,340.83 | \$ | 12,340.83 |
| Expense Total | \$ | 431,890.81 | \$ | 80,930.68 | \$ | 80,930.68 |
| Net Income | \$ | (298,475.81) | \$ | 52,484.32 | \$ | 52,484.32 |
| Cash On Hand | \$ | (298,475.81) | \$ | (245,991.49) | \$ | (193,507.18) |

KEY DIFFERENTIATING FACTORS:

While our marketing strategy will involve business partnerships and consumer education, the factor that sets our business apart from smaller domestic composters is the NY State Food Scraps law that requires large organic waste generators (defined as those that generate at least 2 tons per week) to divert their food waste to compost facilities or anaerobic digestors if they are located within 25 miles of such a facility that accepts food waste. Since there is currently no facility in Warren County, we will have no immediate competitor. We plan to set the tipping fee for food waste significantly lower than the tipping fee for the nearest landfill, Greenridge in Saratoga County, whose tipping fee is \$54 per ton for large waste generators (that's the 2021 tipping fee under the Warren County contract for the town transfer stations).

PRODUCT DESCRIPTION:

Composting is a cost-effective, biological method of green waste (GW) recycling. Composting promotes economic development, protects the environment, anyone can do it, and it improves

are then taken to our facility. By using our facility, these companies will be abiding by the NY State DEC law, if they meet the criteria, and all will gain good PR by touting their environmental responsibility. When the compost product is ready for sale, our target B2B market will be garden centers, plant nurseries, and small organic farms.

On the B2C side, we will target environmentally conscious consumers who want to make a difference and will be early adopters of our service and eventually, the value-added product. Many people buy compost currently but it is often low quality (sold at big box stores from who knows where) and sometimes is even made from sewage sludge. Demographically, this would most likely primarily include Millennials and Generation Z who are concerned about the environmental impact of their actions and choose “green” products when possible. It may also include some environmentally conscious Gen Xers and Baby Boomers. Our target consumer will be urban or suburban households who do not have adequate yard space for a large or distanced compost pile. They are likely not avid gardeners who use the final composted product but may purchase some smaller bags for small-scale or container gardening. Or for improving their lawn or putting around their trees and shrubs.

The B2C marketing strategy of the value-added compost product would center on Warren County suburban homeowners who enjoy small to medium-scale gardening but do not have the space or time to invest in producing their own compost. We would also market to the local farmers and landscape companies who desire high quality compost. Farmers and nurseries also represent a large market for good quality compost sold in bulk. They buy large quantities.

If legislation is enacted in our target market similar to Vermont’s Act 148, or the Universal Recycling and Composting Law, our markets would expand beyond the innovators and early adopters to reach the early and late majority who would be forced by law to seek some sort of composting service.

Below is a listing of potential B2B customers as well as an estimate of B2C clients within 25 miles of the proposed facility site.

| Facility Name | Type |
|-------------------------------------|-------------------------------|
| Shahay's Country Store | Food Wholesale & Distribution |
| Sweet Road Bakers Inc | Food Wholesale & Distribution |
| Glens Falls Produce Co., Inc. | Food Wholesale & Distribution |
| Donohue Candy and Tobacco Co., Inc. | Food Wholesale & Distribution |
| US Foods, Inc. | Food Wholesale & Distribution |

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| Capital Food Services, LLC | Food Wholesale & Distribution |
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| Bimbo Bakeries USA, Inc | Food Wholesale & Distribution |
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| Green Mountain Food Services, LLC | Food Wholesale & Distribution |
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| Champlain Beef Co Inc | Food Wholesale & Distribution |
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|-------------------------------------|-------------------------------|
| Fitzgerald Brothers Beverages, Inc. | Food Wholesale & Distribution |
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MARKETING STRATEGY:

Our marketing strategy will hinge on an educational campaign. We will offer tours on site at our leased property to local business owners. We will also work with local school districts to provide early education to K-12 students and conduct trainings among cafeteria staff at school districts and hospitals.

In addition to workshops and demonstrations, we will produce a series of promotional materials to distribute to potential B2B and B2C customers, explaining the benefits of our composting service. This will include flyers, brochures, posters, and refrigerator magnets with the composting do's and don'ts and our logo and contact information.

We will also reach out to large waste management haulers in our market to offer a partnership whereby they can expand their current customer base to include the Warren County region.

We will develop a user-friendly, eye catching website where customers can sign up for a subscription, pay their bill online, and order compost bags. We will conduct strategic social media and advertising campaigns to garner followers and engagement by sharing interesting, informative, visually appealing content. We will create monthly social media editorial calendars and monthly media pitching plans.

Starting with Facebook and Instagram, we will develop a following locally and will boost engagement by collaborating with partners in local government and business to cross-promote our company to their existing followers. We will pitch local publications and broadcast channels about the new service, with a focus on the environmental benefits, and the "lifecycle of food" angle.

We will hold a special annual Earth Day event at which we will invite guests and media to learn about composting and our technology. We envision gifting attendees with promotional materials and a potted plant, rooted in our compost.

FINANCIAL PLAN:

The Financial Plan for the company begins with specifying Initial Capital Costs required to start the business. In order to ensure financial sustainability, we are starting the business as small as possible, to still drive revenue and provide opportunity to scale. The total value for start-up is \$350,960.12, which includes:

Food Scrap Collection & Composting Operation Budget

Initial Capital Costs

| Capital (depreciable; vehicle may be expensed on IRS per-mile rate) | Cost | Unit | # of Units | Note | Total |
|---|---------------|-------|------------|--|----------------------|
| 6-months Operating Expenses | \$ 40,465.34 | unit | 1 | 6 months of operating expenses | \$ 40,465.34 |
| Grinder | \$ 820.00 | week | 52 | One-time cost, with modifications | \$ 42,640.00 |
| Loader | \$ 3,000.00 | month | 12 | One-time cost | \$ 36,000.00 |
| Mixer | \$ 35,000.00 | unit | 1 | One-time cost | \$ 35,000.00 |
| Screener | \$ 25,150.00 | unit | 1 | One-time cost (can screen 8-15 yards per hour) | \$ 25,150.00 |
| Bagger | \$ 9,090.00 | unit | 1 | One-time cost | \$ 9,090.00 |
| Tarps | \$ 156.95 | unit | 6 | One-time cost | \$ 941.70 |
| PVC for ASP (90'S, T's, couplings) | \$ 11,006.16 | unit | 1 | Assumes 8 ASP zones for site. | \$ 11,006.16 |
| Blowers | \$ 239.00 | unit | 8 | One-time cost | \$ 1,912.00 |
| Timers | \$ 26.99 | unit | 8 | One-time cost | \$ 215.92 |
| Doghouse | \$ 135.00 | unit | 3 | One-time cost (for feedstock storage) | \$ 405.00 |
| Site Office (Ekodome) | \$ 10,139.00 | unit | 1 | One-time cost | \$ 10,139.00 |
| Truck Scale | \$ 17,995.00 | unit | 1 | One-time cost | \$ 17,995.00 |
| Improvements at site | \$ 120,000.00 | Unit | 1 | Structure, Drains, electrical, water, pads et cetera | \$ 120,000.00 |
| Other | | | | | \$ - |
| | | | | | \$ 350,960.12 |

The above capital cost is assuming a system that can handle 20 tons of food scraps per week, and the associated carbon rich material that will be needed for processing compost. Tipping fees to the organic haulers will be \$25.00 per ton. Land procurement is not included in initial costs, because the compost operation will be set-up on land which will be leased by the ACEC from Warren County. Initial capital costs could be lowered if Warren County is able to provide pre-processed, carbon rich material.

3-Year Revenue & Expense Summary

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As shown in the Executive Summary, the Budget projects three years of operations. Year-over-year projections provide a net income that will allow for further capital costs to be incurred to scale the company to 25 large food waste generators.

Year One starts off with one employee, working 40 hours per week, at \$46,981.17 per year. The employee will be responsible for building the compost facility company, collaborating with local large food waste producers, processing the food scraps, marketing the service and the resulting compost product, and ultimately producing a quality finished compost. Year One assumes that the employee will spend their time in the below fashion:

- 30 hours per week plan, manage, and supervise the compost operation, ensuring that the resulting compost is high quality (and high value)
- 5 hours per week coordinate waste/feedstock collection and hauling activities OR Coordinate receipt of food wastes and other feedstock to ensure clean (uncontaminated) raw materials. Act as liaison with food waste haulers
- 5 hours per week market the compost for sale and perform educational activities to promote the successful use of the compost facility by businesses and institutions

Year One revenue is driven by tipping fees and sales of the compost created at the site.

Below is a closer look at Year 1 revenue:

| Year-One Budget | | | | | | |
|----------------------------------|---------|------------|------------|--------------|-------|-------------------|
| Revenue | Revenue | Unit | # of Units | Note | Total | |
| <i>Food Scrap Tipping Fees</i> | \$25 | ton | 1040 | 20 tons/week | \$ | 26,000.00 |
| <i>Compost Sales(bulk sales)</i> | \$45 | cubic yard | 2387 | | \$ | 107,415.00 |
| <i>Other</i> | | | | | \$ | - |
| | | | | | \$ | 133,415.00 |

Total operating expenses for Year One includes material expenses, employee salary, and miscellaneous, which comes to a total of \$350,960.12. Net income for Year One totals \$133,415.00.