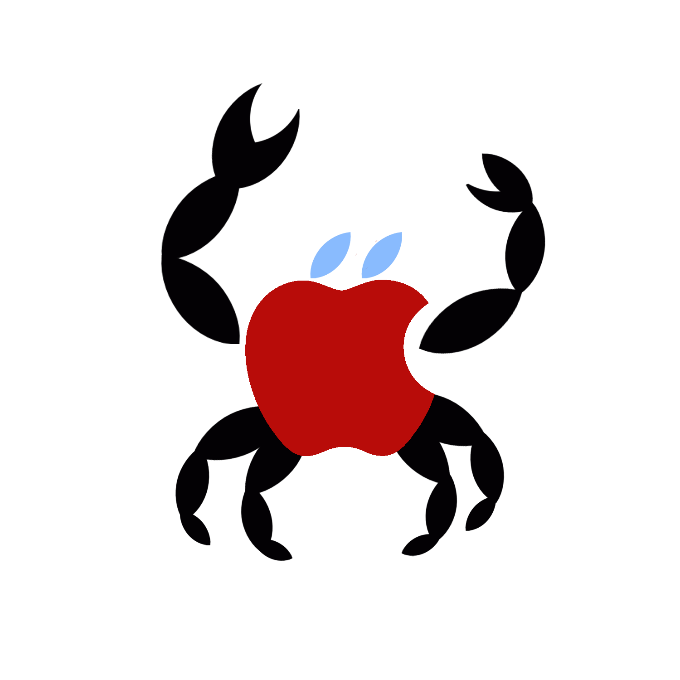
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**Sustainable Vents**

**Ecovent 1.20**

**Business Plan**

**Friday, January 27, 2023**

**Prepared By**

**MAC:**

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| **Tvisha Agarwal** | **Will Baker** | **Cecilia Beckerbauer** |
| **Thomas Cooper** | **Toni Shabaltiy** | **Noah Wilber** |

Executive Summary

Provide a summary of the whole document, narrating a short overview of the company, its structure, founder/s, founding date, and core team members. State the nature of the business, its target market, and the value it provides its clients.

Include the sales, marketing, operational, and financial plans of the company. Describe how the business can achieve growth with these strategies.

Lastly, mention the company’s direct and indirect competition and its competitive advantages over its competitors.

Company Overview

Mission Statement

At Sustainable Vents, we strive to provide the best user experience possible to not only save you money, but also time. Our Ecovent 1.20 provide our users with an unparalleled insight into the efficiency of their HVAC system. It is this insight that not only saves money in the short term, but additionally issues a long-term oversight of their HVAC system.

Philosophy

HVAC systems make up 46% of all energy costs in just the United States, and to install our competitors would cost anywhere from 3-15,000 on the low end. That is excluding the installation of a new air conditioner and furnace that would additionally necessary for our competitors to run properly. Here at Sustainable Vents, we believe that this is unnecessary and provides an incentive against going green. Factor in the growing inflation of the current economy and soon bills become very costly for just a month of living with temperatures below 50˚F. With this situation at hand, we strived to provide a cost-effective simple device with not only an affordable install, but also a large rate of versatility.

Vision

By providing such a simple and affordable device, we strive to provide users with short term and long-term benefits. By using our device to control the physical vents themselves, thus controlling the room-by-room temperatures, we provide a regulated HVAC system, cutting an electricity and gas bill in half within 6 months of use. In addition to this saving of money, our web servers provide a long-term insight into the efficiency of each room in the HVAC system. Utilizing this, one can discover what rooms are leaking air and/or need to be ventilated more.

Outlook

With the projected 6% increase in the next 5 years, we believe that our Ecovent 1.20 can aid with increase of affordability of products and an ease into going green. We know that we are a one-of-a-kind organization with unmatched product capabilities, and we strive to use that position to help the affordability of sustainability increase. We want to provide an experience that would not only benefit our users, but also the world.

Type of Industry

We would be operating in the HVAC and energy markets of the United States. These markets have vital niche markets that are non-existent currently due to the power of our competitors in both of these markets. We view this as a valuable opportunity to provide our innovation and services to the United States, especially with the economic situation at hand.

Business Structure & Ownership

We have structured into a single good and support services corporation. This enables us to focus on the upkeep and production of our Ecovent 1.20s. Additionally, it allows a growth possibility shall we develop further innovations that would aid in our vision.

Services

Description

Provide a detailed description of each of the IT services the company is offering.

Value Proposition

Describe the value of the company offers its customers in terms of services, expertise, flexibility, speed, cost-efficiency, transparency, etc. Be as concise as possible.

Marketing Analysis

Industry Overview and Trends

Provide a short narrative of the IT industry’s market and economic status. Cite emerging trends that could possibly impact the company as well as the industry at large. You may use graphs and tables to present information that is relevant to this section.

Target Market

Expound on what market population is the main target for your IT services.

Market Size

|  |  |  |
| --- | --- | --- |
| **Draw Area** | **Size** | **% Of Total** |
| HVAC: Devices | 118,200,000,000 | 30% |
| HVAC: Upkeep Services | 78,800,000,000 | 20% |
| Energy: Devices | 364,200,000,000 | 20% |
| Energy: Upkeep Services | 546,300,000,000 | 30% |
| **Total** | **1,089,500,000,000** | **100%** |

Market Segmentation

|  |  |
| --- | --- |
| **Demographic** | **Behavioral** |
| **Psychographic** | **Geographic** |

SWOT Analysis

|  |  |
| --- | --- |
| **Strengths**   * Improving the efficiency of the HVAC system * Displays a room temperature on the floor vent device and the on the web app * Affordable * Intuitive | **Opportunities**   * Save money * Keep rooms in a consistent moderate temperature * Incredibly versatile * No expensive install * No need to purchase a whole new system |
| **Weaknesses**   * More work needed to finalize device * An internet connection is necessary to access the web app * Relying on customers updating the device when it is needed to be done | **Threats**   * Threat of copying due to a lack of copyright * Our competitors have a larger foothold in the market * Have to compete with HVAC zoning systems |

## 

Competition

Direct and Indirect Competition

|  |  |  |
| --- | --- | --- |
| **Sustainable Vents** | **Direct Competitor** | **Indirect Competitor** |
| Devices with Web App access, and upkeep services | Arzel Zoning Systems | Daikin |

Competitive Analysis

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Strength** | **Weakness** | **Opportunity** | **Threat** |
| Sustainable Vents | * Improving the efficiency of the HVAC system * Displays a room temperature on the floor vent device and the on the web app * Affordable * Intuitive | * More work needed to finalize device * An internet connection is necessary to access the web app * Relying on customers updating the device when it is needed to be done | * Save money * Keep rooms in a consistent moderate temperature * Incredibly versatile * No expensive install * No need to purchase a whole new system | * Threat of copying due to a lack of copyright * Our competitors have a larger foothold in the market * Have to compete with HVAC zoning systems |
| Arzel Zoning Systems | * Sustainable development * Number of acquisitions * Frequent quality inspection * Strong brand network | * High prices * Marketing not up to the mark * Zero presence in other segments * Lack of differentiation * Dependency | * Technological advancement * Increase the depth of product portfolio * Emerging markets * Skilled labor | * Mature markets * Intense competition * Dropping margins * Shortage of skilled human resources * Saturation in urban markets and stagnation in rural markets |
| Daikin | * Sustainable development * Number of acquisitions * Frequent quality inspection * Innovations * Future expansions * Strong brand network * Huge manpower force | * High prices * Marketing not up to the mark * Zero presence in other segments * Lack of differentiation * Dependency | * Technological advancement * Increase the depth of product portfolio * Emerging markets * Introducing small appliances * Skilled labor | * Mature markets * Intense competition * Dropping margins * Shortage of skilled human resources * Saturation in urban markets and stagnation in rural markets |

Marketing Plan

|  |
| --- |
| **Content Marketing** |
| By utilizing infographics, case studies, and user-generated content on social media, through social media marketing, and drawing the customers with Pay-Per-Click, through Google advertising marketing, we will create a sustainable marketing base. We intend to keep a content calendar and create buyer personas. These paired with the social media marketing and Google advertising marketing will allow us to fixate on our strengths and maintain a balance and foundation for our overall marketing strategy. |

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| **Social Media Marketing** |
| To promote the content created with content marketing, we would utilize social media marketing on a variety of social media platforms including Instagram, Tik Tok, Twitter, and LinkedIn. We would strengthen this by utilizing Google advertising, but we would use this as our foundational marketing strategy in conjunction with content marketing. We would also keep a calendar for furthered organization. Search engine optimization would also help promote this. |

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| **Search Engine Optimization** |
| To help promote and grow our foundational content and social media marketing strategies, we would utilize search engine optimization. We will have to do quite a bit of keyword research and how to best utilize this strategy as it can get in depth very quickly. We will most likely not be able to use this right away due to the sheer amount of research needed to use it properly, but we do want to focus on using it as a main support beam for our foundation. |

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| **Earned Media and PR** |
| When starting any small business, the local community is always going to be your initial most prosperous customers. With this, we plan on utilizing the earned media and PR marketing strategy to help pull in these local customers. We plan on doing this by creating a large positive start. We want people to be talking about the positives of our company and the Ecovent 1.20. This is a very time-consuming strategy so we will be phasing it out by focusing more and more on content and social media marketing. |

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| **Google Advertising** |
| This will be the costliest strategy out of all those that we plan on operating on. This is due to the fact that it is on a Pay-Per-Click system. Initially, this would not cost too much with only a few customers. However, with the exponential growth that we foresee by creating a new market, this can get expensive very, very quickly. Thus, we are planning to use this strategy the least. We do not see this becoming a dominant strategy, but do know of the benefits and will try to maintain a balance with that. |

Marketing Strategy

|  |  |
| --- | --- |
| **Marketing Strategy 1** | Content Marketing |
| **Activities** | Infographics, case studies, user-generated content |
| **Success Criteria** | Creating buyer personas, improving our search engine optimization, keep a calendar, fixate on a few things inside social media marketing |

|  |  |
| --- | --- |
| **Marketing Strategy 2** | Social Media Marketing |
| **Activities** | Instagram, Tik Tok, Twitter, LinkedIn |
| **Success Criteria** | Improving our search engine optimization, knowing our customers, keep a calendar, focus on content marketing |

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| --- | --- |
| **Marketing Strategy 3** | Search Engine Optimization |
| **Activities** | Utilize social media and content marketing as a key focus, use keywords appropriately |
| **Success Criteria** | Do lots of keyword research |

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| --- | --- |
| **Marketing Strategy 4** | Earned Media and PR |
| **Activities** | TV stories, journalism stories |
| **Success Criteria** | Create a large initial positive start, promote positivity, draw the attention that you want |

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| **Marketing Strategy 5** | Google Advertising |
| **Activities** | Pay-Per-Click |
| **Success Criteria** | Maintain a healthy balance between the financials with the other strategies and this one, make sure you know the limit |

Pricing Strategy

We have decided to operate on an economy pricing and cost-plus pricing strategies. In choosing an economy pricing, we decided that this one of the best fits for our Ecovent 1.20s as we hold affordability and accessibility as some of our most unique features. It is these features that set us out in the energy and HVAC markets, so it was a very simple choice to include an economy pricing strategy. Not only do we maintain these values by watching our competitors, but we feed into our other pricing strategy, cost-plus. By utilizing a cost-plus strategy in conjunction with the economy pricing strategy, we are able to embody the values of sustainability and simplicity. We formed Sustainable Vents in an effort to help push for more sustainability and support for the going green movement. There is no reason to be focusing on a profit for this organization, as we want to promote sustainability with our Ecovent 1.20s. However, since this is an entrepreneurial organization, we do expect a profit to be formed. Upon much consideration, we have decided that we wish to use this profit to help promote the going green movement and sustainability in other markets by financially supporting organizations, governments, and non-profits. Not only does this promote the green movement in our own markets, HVAC and energy, but it also allows the movement to gain more support and headway. Thus, the economy pricing and cost-plus pricing strategies best aid our organization in embodying the values that we hold closest as an organization: Affordability, accessibility, sustainability, and going green.

Operational Plan

Operating Hours

As an organization, we promote a non-toxic and supportive environment. This includes encouraging our employees and ourselves to set boundaries between home and work life, supporting their mental health, and promoting a welcoming community of friends rather than just co-workers. This plays out heavily in our operating hours as we will not be operating on any federal or general holiday. We also will provide mental health days, team bonding activities, group volunteering sessions, and other support systems to promote our desired environment. Additionally, our flexibility and simplicity allow us to work under 10 hours per week and still make a viable living. We will be increasing pay to a salary system, but seeing as we are just a start-up there is no need.

Location

Seeing as our organization does not need a location currently, we have decided that we will operate remotely until it is necessary to get a warehouse. With the design of our product, manufacturers are more able to provide the numbers that would be demanded, and only shipping would need to be handled on our side of the operations. All of our upkeep services, can be done remotely due to the Raspberry Pi Pico Ws having Wi-Fi. We do foresee having to get a warehouse eventually for an inventory storage center, and we would ideally be able to manufacture our devices without a third party. However, we do not feel that is necessary at the moment so thus we would be operating remotely until then.

Key Staff

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Tvisha Agarwal** | **Will Baker** | **Cecilia Beckerbauer** |
| **Position** | Director of Marketing | Director of Hardware | Director of Business Actions |
| **Date Joined** | Nov. 7, 2022 | Nov. 7, 2022 | Nov. 7, 2022 |
| **Salary** | $10.50/hr.  ~ $2,520/yr. | $10.50/hr.  ~ $2,520/yr. | $10.50/hr.  ~ $2,520/yr. |
| **Name** | **Thomas Cooper** | **Toni Shabaltiy** | **Noah Wilber** |
| **Position** | Director of Device Software | Director of Design | Director of Servers |
| **Date Joined** | Nov. 7, 2022 | Nov. 7, 2022 | Nov. 7, 2022 |
| **Salary** | $10.50/hr.  ~ $2,520/yr. | $10.50/hr.  ~ $2,520/yr. | $10.50/hr.  ~ $2,520/yr. |

Financial Plan

Assumptions

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sustainable Vents** | | | | |
| **Business Start-Up Costs in USD** | | | | |
| **FUNDING** |  | **Estimated** | **Actual** | **Over/(Under)** |
| **Investor Funding** |  | | | |
|  | Owner 1: Tvisha Agarwal | 150.00 | 150.00 | 0.00 |
|  | Owner 2: Will Baker | 150.00 | 150.00 | 0.00 |
|  | Owner 3: Cecilia Beckerbauer | 150.00 | 250.00 | +100.00 |
|  | Owner 4: Thomas Cooper | 150.00 | 250.00 | +100.00 |
|  | Owner 5: Toni Shabaltiy | 150.00 | 250.00 | +100.00 |
|  | Owner 6: Noah Wilber | 150.00 | 250.00 | +100.00 |
|  | **Total Investment** | 900.00 | 1,300.00 | +400.00 |
|  | | | | |
| **Loans** |  | | | |
|  | Bank Loan 1 | 75,000.00 | 75,000.00 | 0.00 |
|  | **Total Loans** | 75,000.00 | 75,000.00 | 0.00 |
|  |  |  |  |  |
| **TOTAL FUNDING** |  | **75,900.00** | **76,300.00** | **+400.00** |
|  | | | | |
| **COSTS** |  | **Estimated** | **Actual** | **Under/(Over)** |
| **Fixed Costs** | | | | |
|  | Advertising for Opening | 600.00 | 550.00 | -50.00 |
|  | Basic Website | 200.00 | 200.00 | 0.00 |
|  | Brand Development | 100.00 | 50.00 | -50.00 |
|  | Business Cards/Stationery | 200.00 | 194.00 | -6.00 |
|  | Business Licenses/Permits | 100.00 | 100.00 | 0.00 |
|  | Computer Hardware/Software | 10.00 | 10.11 | +0.11 |
|  | Legal/Professional Fees | 300.00 | 150.00 | -150.00 |
|  | Operating Cash (Working Capital) | 100.00 | 150.00 | +50.00 |
|  | Point of Sale Hardware/Software | 15.00 | 12.00 | -3.00 |
|  | Prepaid Insurance | 100.00 | 111.00 | +11.00 |
|  | Reserve for Contingencies | 200.00 | 250.00 | -50.00 |
|  | Starting Inventory | 500.00 | 600.00 | +100.00 |
|  | Telephone | 25.00 | 25.00 | 0.00 |
|  | Tools & Supplies | 50.00 | 67.00 | +17.00 |
|  | **Total Fixed Costs** | **2,500.00** | **2,469.11** | **-30.89** |
|  | | | | |
| **Average Monthly Costs** | | | | |
|  | Advertising | 100.00 | 115.00 | +15.00 |
|  | Business Insurance | 30.00 | 24.00 | -6.00 |
|  | Employee Salaries and Commissions | 1,260.00 | 1,260.00 | 0.00 |
|  | Inventory, Raw Materials, Parts | 1,000.00 | 1,000.00 | 0.00 |
|  | Internet Connection | 60.00 | 60.00 | 0.00 |
|  | Loan and Credit Card Interest & Principal | 1,350.00 | 1,362.38 | +12.38 |
|  | Legal/Accounting Fees | 50.00 | 25.00 | -25.00 |
|  | Miscellaneous Expenses | 12.00 | 30.00 | +18.00 |
|  | Payroll Taxes or Self-Employment Tax | 648.00 | 660.96 | +12.96 |
|  | Postage/Shipping Costs | 50.00 | 75.00 | +25.00 |
|  | Supplies | 50.00 | 25.00 | -25.00 |
|  | Telephone | 25.00 | 25.00 | 0.00 |
|  | Website Hosting/Maintenance | 50.00 | 50.00 | 0.00 |
|  | **Total Average Monthly Costs** | 4,685.00 | 4,712.34 | -27.34 |
|  | **x Number of Months** | **12** |  |  |
|  | **Total Monthly Costs** | **56,222.00** | **56,548.08** | **-328.08** |
|  | | | | |
| **TOTAL COSTS** |  | **58,720.00** | **59,017.19** | **-297.19** |
|  | | | | |
| **SURPLUS/(DEFICIT)** |  | **17,180.00** | **17,282.81** | **-102.81** |

Six-Month Sales Forecast

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Draw Area | Price Point | February  2023 | March  2023 | April  2023 | May  2023 | June  2023 | July  2023 | Total |
| Devices Sold | 19.99 | 1,999.00 | 3,298.35 | 5,437.28 | 8,955.52 | 14,706.10 | 24,347.82 | 58,744.07 |
| Upkeep Services | 100.00 | 0.00 | 0.00 | 0.00 | 10,000.00 | 16,500.00 | 27,200.00 | 53,700.00 |
| Subtotal | 119.99 | 1,999.00 | 3,298.35 | 5,437.28 | 18,955.52 | 31,206.01 | 51,547.82 | 112,444.00 |