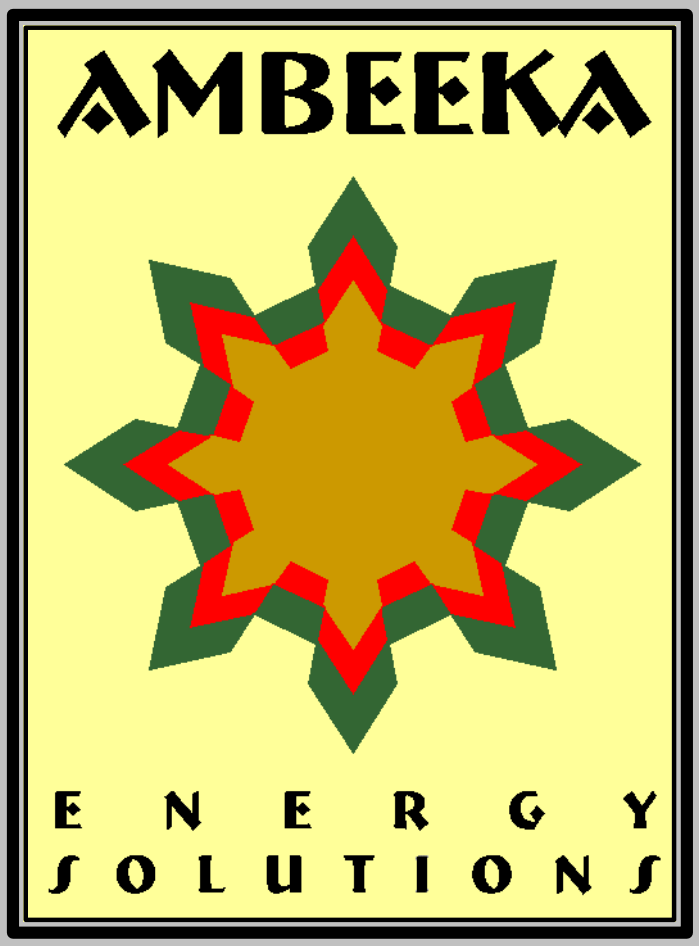

Business Plan for Project Karagwe

January 2000

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EXECUTIVE SUMMARY

Company Overview. Ambeeka Energy Solutions will empower the world's underdeveloped communities through the application of solar and wind energy technologies. The company will become the world's leading provider of renewable energy (RE) products and services, with projects potentially spanning all seven continents, by 2014.

Industry & Marketplace Analysis. One third of the world's population has no electricity. The majority of these people live in rural, remote areas of the world's poorest nations. Global development is a multi-billion dollar industry, with the World Bank providing huge sums of money to fund large-scale projects. In the past ten years, global electricity demand has grown by 40%. During this time, the use of RE has expanded at ten times the rate of fossil fuels. Experts predict that the world's electricity demand could triple by 2020, a colossal increase that will be fuelled by the industrialization of developing countries. As a specialty provider and integrator of RE systems designed for developing communities, Ambeeka will position itself to capitalize on this explosive trend. Ambeeka will establish its first project in Karagwe, Tanzania, which lies near the western shore of Lake Victoria, deep in sub-Saharan Africa.

Products & Services. Ambeeka will introduce affordable electricity to Karagwe by offering attractive financing options for solar electric systems. This will enable families to make purchases in small monthly installments, in the same way that a consumer would buy an automobile in the United States. In addition, Ambeeka will construct a 15,000-watt solar/wind power station and community center, where services such as electric coffee processing, water pumping, refrigeration, computing, telecommunications access, and Internet browsing will be sold. This community center will also serve as a nucleus of education, where Karagwe residents will be exposed to a contagious spirit of entrepreneurship. The services provided here will enable, motivate, and educate people to start new businesses. In this way, Ambeeka's presence in Karagwe will substantially boost the region's economic prosperity.

Marketing Strategy. Karagwe is a dispersed farming community of 350,000 people. The area is so remote that power lines may never be extended there, and only 2% of the population has electricity. Ambeeka's target customer is a Karagwe family that earns about $700 per year. A basic solar electric system will be priced at $288, or $24 per month. Market research conducted in Karagwe strongly suggests that this price is feasible, despite the fact that it represents 45% of a typical family's annual income. Currently, Karagwe families use crude and dangerous kerosene lamps to light their homes, and expensive dry-cell batteries to power their radios. A solar electric system is safer, more reliable, provides better lighting, and promises better value than the alternatives mentioned above. Construction of the power station and community center will advertise Ambeeka's dedication to a sustainable, long-term presence within the community. Ambeeka has partnered with a local company called the Columbia Solar Electronics Workshop (CSEW). Working with CSEW, Ambeeka will sponsor informational forums to educate customers about the economic benefits of financing, the technology behind solar electricity, and the use of electricity in cultivating a prosperous economy.

Operations and Development. In October 2000, Ambeeka will begin building the power station and community center. An expert in the RE field has been recruited to design this station, and to oversee its construction. CSEW will run all operations of the business in Karagwe, including inventory handling, payment collection, product distribution, and maintenance repair. All power systems will be sold to customers as pre-packaged kits, assembled by CSEW employees.

Management Team. Jason Spellberg, Ambeeka's founder, is completing his MBA in Entrepreneurship at the University of Colorado. He has traveled extensively in East Africa, and has forged a business partnership with Gaspar Makale, owner of CSEW. As permanent employees, the founders will seek, identify, and finance lucrative new project opportunities all over the world. Mr. Makale will also oversee Ambeeka's operations in Karagwe.

Summary of Financials and Offering to Investors. In Karagwe, solar kit financing will generate almost $800,000 of net income, and $2.7 million in accumulated cash, by 2006. Ambeeka will seek $1 million in a single round of seed financing to fund the construction of the power station and community center. Ambeeka will seek this capital from private accredited investors, non-profit relief agencies, or possibly as a partnership with a global technology company interested in penetrating emerging markets. Ambeeka's presence in Karagwe will drastically improve the community's prosperity, thereby building real demand for electronics and telecommunications products and services. In exchange for capital and strategic support, Ambeeka will offer an investor equity, and will additionally offer a partner company direct, unlimited access to these markets at the grass-roots level. Ambeeka is dedicated to improving the lives of the world's underprivileged people by promoting the use of clean renewable energy. Therefore, Ambeeka also offers investors association with this noble initiative.

COMPANY OVERVIEW

The name *Ambeeka* derives from an ancient Sanskrit word meaning "energy" or "illumination." Appropriately, therefore, the commitment of Ambeeka Energy Solutions will be to spread technologies for harnessing renewable energy (RE). The term "renewable" refers to sources of energy that can never be diminished or exhausted, such as wind and sun. The most common commercial RE technologies are photovoltaic (PV) modules, wind turbines, and, increasingly, fuel cells, which produce electricity from solar radiation, wind, and hydrogen, respectively.

Vision Statement

To Become the World Leader in the Creation, Development, and Deployment of Technologies that Converge the Advancement of Human Civilizations with that of the Environmental Condition

Three-Year Mission Statement

To Profitably and Sustainably Introduce Renewable Energy Into the World's Underdeveloped Communities

Current Status

Ambeeka Energy Solutions will be organized as a Delaware C-corporation, with an executive office in Boulder, Colorado, USA, during the first quarter of 2000. The company will serve as a for-profit holding, investing, and consulting agency, and will work in partnership with developing communities to establish sustainable RE projects all over the world.

Market & Services

Ambeeka will immediately specialize in providing electricity and electric services for rural communities, and will utilize two different business strategies to distribute power. First, Ambeeka will sell solar electric systems for home and commercial applications by allowing customers to finance the cost of these systems over time. Second, the company will offer end-user services direct to customers by establishing electrified community centers in the heart of their villages. At these centers, people will be able to purchase services ranging from crop processing to refrigeration to telecommunications access to internet browsing.

Objectives

Ambeeka's first RE project will be in Karagwe, Tanzania, a remote agricultural community in East Africa. The company will aggressively expand into a global provider of RE products and services by seeking new opportunities in other parts of Africa, as well as in Asia and Latin America. By 2014, Ambeeka will be the world's undisputed leading provider of RE products and services, and will operate Research & Development divisions for creating innovative novel technologies that address the environmental crises of the 21st Century. This business plan will present Ambeeka's strategy for getting started, by establishing a profitable and sustainable RE business in Karagwe, Tanzania.

PRODUCTS & SERVICES

Description of Services
Ambeeka will offer financing packages for home and commercial-scale solar electric systems. The retail price of a small solar electric system in rural Africa is around $800. Ambeeka will enable Karagwe customers to purchase systems in affordable monthly installments, similar to the way most people in the United States purchase automobiles. These financing options will be especially popular in poor communities such as Karagwe, where affordability drives a preventative wedge in a customer's ability to buy. This business plan will mainly describe the financing aspect of Ambeeka's operation in Karagwe.

To solidify people's confidence in these financing options, and to demonstrate the company's dedication to the community, a 15,000-watt solar/wind power station and community center will be constructed in Karagwe. A number of end-user services will eventually be provided at this community center, such as coffee bean processing, food storage and refrigeration, battery charging, water distilling, computing, telecommunications access, and Internet browsing. In addition, an educational center will be instituted, where customers will learn how to use electricity and technology to start new businesses, or to expand existing ones. Most of these services will be provided within a year after Ambeeka's initial establishment in Karagwe, but eventually they will generate as much as 75% of the company's revenue. All of these services will be designed to help Karagwe residents augment their incomes. In this way, Ambeeka hopes to foster economic activity, and thus prosperity, within the community. This business plan will not describe the community center aspect of Ambeeka's operation in detail, but the offering of these services *is* part of the company's long-range plan for development in Karagwe.

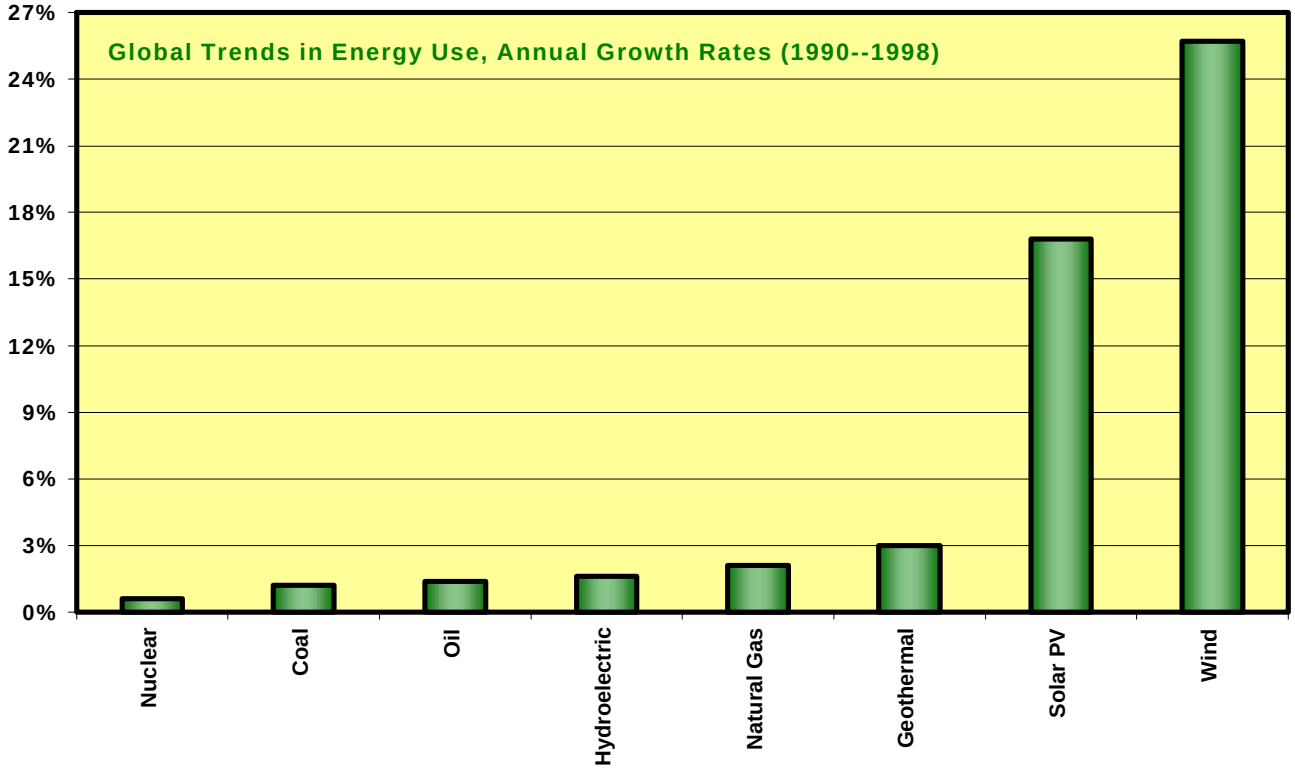
Proprietary Rights
In Karagwe, and in all other project sites, Ambeeka will seek partnership with a local organization to help with operations, marketing, legal negotiations, and other important aspects of conducting business. Ambeeka's partner in Karagwe is a natively owned company called the Columbia Solar Electronics Workshop (CSEW). CSEW was founded in April 1999 by Mr. Gaspar Makale, a Tanzanian electrical engineer and entrepreneur. Mr. Makale and Mr. Spellberg, Ambeeka's founder, are close friends, and have been in business together for close to two years. It is virtually impossible for any foreign company to conduct effective or sustainable business in a poor, developing community without trustworthy local contacts. Besides CSEW, there is no company in Karagwe that has the technical capability, or the entrepreneurial innovation, to establish a joint venture of this kind. As such, Ambeeka is confident that no other foreign company will be able to enter this market.

Stage of Development
Although fifty years of market exposure have proven RE technologies to be unequivocally reliable and durable, the commercial RE industry is still in its infancy, and the electricity markets in developing parts of the world remain almost completely untapped. A business solution is needed to meet the challenge of profitably selling this expensive, high technology equipment to people with meager incomes. In the past five years, a number of strategies have been implemented in rural, developing markets with astounding success. Almost all of these models have extended a micro-credit or financing option to their customers. These successful companies, which will be further discussed in the Industry Analysis section, have proven the efficacy of the business model that Ambeeka will apply in Karagwe.

INDUSTRY & MARKETPLACE ANALYSIS

Industry Analysis

As an RE service provider targeting emerging markets, Ambeeka will compete in the industry known as Renewables for Sustainable Village Power (RSVP). RSVP is a small, but fast-growing subset of the gigantic global energy industry, which is currently experiencing an economic revolution. One significant characteristic of this revolution has been astonishing growth. Over the past ten years, for instance, the world's demand for electricity has increased by 40%. Experts predict that, as industrialization sweeps developing countries, current demand could *triple* by 2020.[1] Because so many new electricity users live in remote areas, most of this increased demand has been, and will continue to be, serviced by RE. As a result, renewables are by far the fastest growing segment of world energy use, as is shown in the following chart.[2]



The second trend of importance is privatization and deregulation. Over the past five years, this has been a global contagion, especially in developing countries, where governments continue to implement aggressive policies designed to attract foreign investment. Tanzania, for instance, adopted the National Investment Promotion and Protection Act in 1990, which guaranteed the privatization of several key industries, including energy. The opening of these economies has sparked the proliferation of scores of small, entrepreneurial energy companies striving to profitably satisfy the need for rural energy development. Some, such as the Grameen Bank of Bangladesh, the Solar Electric Light Fund of Thailand, and Soluz of the Dominican Republic, have developed profitable business models based on selling solar electric systems through micro-credit arrangements.[3] Meanwhile, large companies such as Enron, Shell Oil, and British Petroleum/Amoco have established dedicated RE divisions, and are aggressively executing multi-million dollar RE projects in places such as Indonesia and South Africa.

But despite this recent surge of activity, the RSVP industry still faces some imposing challenges. For example, the vast majority of people who most need RE technologies still cannot afford them. Substantial increases in end-user purchasing power have remained elusive, and, as a result, sales are not close to what they could be. Consequently, RE manufacturers have been unable to drive economies of scale enough to cost-compete with fossil fuels. Another problem

[1] "PowerGen Energy 2020 Report," Oxford Economic Research Association, September 1997

[2] "Coming of Age in the Energy Revolution," Christopher Flavin and Seth Dunn, *Renewable Energy World*, July 1999

[3] Please see **Appendix C** for a more complete list of entrepreneurial RE enterprises

is the lack of skilled RE technicians in developing countries. There are only a handful of training centers in the world teaching RE system installation. Finally, international turmoil remains an imposing obstacle. In many countries, political and economic instability has prevented the long-term investment and presence needed to sustain RE projects.

These challenges are typical of any global industry that is only just beginning to mature, and real progress is being made to address them. Over the past decade, for instance, PV production costs have been reduced by 80% (an additional 50% to 75% is required to cost compete with coal-fired electricity). Furthermore, experts predict that economic and industrial development in emerging countries will lead to a 100% increase in world income by 2020.[4] As prosperity builds demand for electricity, RE training centers are being established in the developing world, such as the highly respected Karadea Solar Training Facility in Karagwe. Furthermore, despite civil wars and social unrest, there are scores of developing countries, like Tanzania, where political stability harbors fantastic economic opportunity. Many experts predict that this global "Energy Revolution" contains the seed that will become the world's premier growth industry of the 21st Century.

Marketplace Analysis

Tanzania. Tanzania is the largest and most peaceful nation in East Africa. The country has demonstrated over 38 years of political stability, and is governed by a multiparty democracy based on English common law. Tanzania has posted an average annual economic growth rate of 3.5% over the past ten years, however inflation currently lingers at 13%.[5] Tanzania's GDP is expected to grow at 5.5% annually through 2002.[6] Agriculture is the nation's primary industry, accounting for 56% of its GDP, and employing over 90% of its workforce. Only 24% of Tanzania's population live in urban areas, meaning that the country's 32 million people are widely dispersed over an area more than twice the size of California.[7] Between 1986 and 1991, demand for electricity in Tanzania grew at an average annual rate of 10.2%, a trend that is expected to continue. Over 75% of Tanzania's electricity consumers are served by hydroelectric power, and the country experiences generation shortfalls during drought conditions. Almost all of Tanzania's electricity usage is confined to its urban areas.[8]

Karagwe. Karagwe is a remote farming community in the northwestern corner of Tanzania, about 100 kilometers from the western shore of Lake Victoria, at a geographic position of two degrees south latitude.[9] The region experiences two dependable rainy seasons per year, and receives an annual average of about five peak sun hours per day, roughly 10% more than Denver, Colorado. About 350,000 people, or 60,000 households, live in this region, which is situated on a wide, sloping ridge at an elevation of 1,650 meters (5,400 feet) above sea level. The prominence of this ridge above the surrounding plain leaves it exposed to the tropical trade winds, which consistently blow from the west. There are few regions in the world that boast such abundant RE natural resources. Almost every household in Karagwe is surrounded by a plantation of several hectares, and coffee is the community's chief cash crop. The average yearly income is about $700 per family, and, though this is strikingly poor by western standards, Karagwe is one of Tanzania's most prosperous rural communities.

Customer Analysis

Karagwe is an extremely dispersed village, with 350,000 people living in an area of 3,200 square kilometers. As a result, only 1.4% of Karagwe's most centralized homes and businesses are electrified by the regional utility grid, while 0.6% are electrified with solar power. The remaining 98% have no hope of seeing the grid extended to their homes during the next ten years.[10] Residents of Karagwe realize that modernization cannot take place without electricity, and that access to electricity will significantly enhance their economic prosperity and quality of life. As a result, it is no surprise that 100% of the fifty or so Karagwe residents surveyed during the summer of 1999 indicated a strong desire to participate in a financing program that would allow them to afford a solar electric system.[11]

Karagwe families live in large houses, typically constructed of brick and concrete. Each house has three to five bedrooms, a kitchen, a living room, a washroom, and an animal pen. Families submit no property taxes or mortgage payments. Furthermore, because Karagwe is a farming community, residents spend very little on food, except for the

[4] "PowerGen Energy 2020 Report," Oxford Economic Research Association, September, 1997

[5] "Tanzania, Economic Trends and Outlook," *Country Commercial Guides*, International Trade Administration, U.S. Dept. of Commerce, October 1998

[6] "Tanzania at a Glance," The World Bank, October 1998

[7] CIA World Factbook, 1999

[8] International Electric Power Encyclopedia, p. 156, 1998

[9] Please see the maps featured in **Appendix A**

[10] Personal Interview with the head manager, Karagwe office, Tanzania Electric Supply Company

[11] A description of this informal survey is provided in **Appendix D**

few items, such as rice and fish that must be imported from surrounding districts. Very few people in this village possess an automobile, and those who do earn three to ten times more than the average yearly income. Aside from a handful of bars, restaurants, grocery stores, and weekly farmers' markets, Karagwe offers very little for the consumer. Because there is not much in this community to spend money on, Karagwe families tend to retain a purchasing power that is greater than half of their annual income.[12] Nevertheless, due in large part to the inflationary pressures and banking crises that have plagued Tanzania ever since the 1960's, people are generally unfamiliar with the concept of saving money. Only in the past few years have stabilized banks begun to earn the trust of Tanzanian consumers, and in the rural parts of the country, this trend is proceeding quite slowly.

Despite these simplistic financial tendencies, the typical Karagwe resident is quite sophisticated, and understands the benefits of solar electricity. Karagwe is home to Africa's most distinguished solar training facility, where Ambeeka's Africa Operations Officer, Mr. Gaspar Makale, is chief of faculty. Because of the international recognition of this school, Karagwe residents know that solar electricity represents a clean, safe, and reliable way to power their homes. Unfortunately, however, even a small solar electric system costs about $800 retail in Africa, and only the richest families can afford this price. As a result, most families continue to light their homes with crude kerosene lamps, and to power their radios with inefficient dry cell batteries. Nevertheless, the demand for solar electric systems latently exists in Karagwe, and it is up to Ambeeka to tap this market potential by making these systems affordable for the average Karagwe family.

Competitor Analysis

Competing Technologies. Because solar electric systems are so expensive in Karagwe, they are viewed as luxury items. Almost every family would love to have one, but affordability is a preventative issue. As such, people must use more conventional methods of lighting their homes. Kerosene and dry cell batteries are readily available in Karagwe, but neither item is particularly cheap. Kerosene sells for about fifty cents per liter, and a typical family uses four to six liters per month; many organizations, such as schools and health clinics, use twenty to fifty liters per month. Dry cell batteries retail for about $3.00, and may last two or three weeks at the rate most families use their radios. Some families also own gasoline gensets, while still others own automobile batteries, which they charge with gensets, or at a grid station in the central part of the village.[13] Ambeeka's chief competition in Karagwe is certainly kerosene and disposable batteries, and solar has several advantages over them. First, kerosene lamps are crude and dangerous; it is easy to find an adult in Karagwe who has been burned, at some point in his or her life, by a kerosene lamp leaking, spilling, or completely exploding. Furthermore, kerosene lamps provide lighting that is only somewhat better than a large candle, and they tend to be noisy and smelly during operation. Dry cell batteries are expensive because they must be replaced so frequently, and their disposal poses a serious environmental threat. Also, many appliances cannot be powered with batteries. A solar electric system, on the other hand, is clean and safe, and provides the familiar fluorescent, white light that can illuminate an entire room. Furthermore, a solar electric system can be used to power any electric appliance. It offers modularity, flexibility, and expandability, so that one single power source can be used for the house's every electrical need. Additionally, these systems are extremely reliable, and require only minimal maintenance on, and periodic replacement of, the battery. If well maintained, a solar electric system will last for thirty years. Solar electric systems are more expensive than conventional alternatives in the short-term, but in the long run provide a far superior value for the money.

Competing Service Providers. Aside from Ambeeka's partner, CSEW, there are no businesses or organizations providing solar electricity in Karagwe. Furthermore, there is not a single organization in all of northwestern Tanzania that offers financing for solar electric systems. The national utility, the Tanzania Electric Supply Company (TANESCO), has no intention of expanding the utility grid into the periphery of Karagwe for at least ten years. Furthermore, this company has no understanding of solar electricity, and maintains only a minimal presence in Karagwe. TANESCO is not equipped to effectively compete in this marketplace.

[12] This information was gathered on-site in Karagwe by Mr. Spellberg during the summer of 1999

[13] This information was gathered on-site in Karagwe by Mr. Spellberg during the summer of 1999

MARKETING STRATEGY

Target Market Strategy
In order to make solar electricity affordable, Ambeeka will offer families and businesses the option of paying for their system in twelve monthly installments. The smallest kit offered will be priced at $24.00 per month. This translates into a year-end price of $288, which is a tremendous saving over retail. Because people in this region maintain a purchasing power equivalent to about 50% of their annual income, Ambeeka's principal target market is families that earn at least $600 per year. It is estimated that roughly one-third of Karagwe's households earn this amount or more, meaning that Ambeeka's primary target market in Karagwe consists of about 19,000 families.[14]

Service Strategy
Financing Terms. Many micro-credit programs have failed in developing communities because customers have been allowed to default on their loans. It can be extremely difficult both logistically and financially to repossess equipment in remote villages of foreign countries. To circumvent this problem, Ambeeka will offer "pre-financing" plans to its customers. Under the terms of these pre-financing options, customers will have to pay their entire balance before Ambeeka will give them a system. There are two reasons why this is necessary in Karagwe. First, people in developing countries often do not understand the concept of credit, and, especially when an American company is the lender, regularly assume that "credit" means "free." Second, industrialized nations have repeatedly allowed governments and businesses in the developing world to default on their debt. People in these communities, Karagwe included, are accustomed to receiving free handouts from the World Bank and industrialized governments. It is unlikely that Ambeeka can establish a high-growth, sustainable business in Karagwe if expensive electrical systems are provided, but money is not collected. As such, customers will pay for their systems first, in entirety, before they receive them; no exceptions will be allowed.

Because the financing plans will have one-year terms, Ambeeka must offer customers something while they pay for their electric systems. This is where the community center will be useful. During the terms of their financing contracts, Ambeeka's customers will be allowed to utilize all services at this community center free of charge. These privileges will end upon fulfillment of the financing agreement, or if a customer defaults on several payments. This strategy will allow Ambeeka to collect money before distributing systems, and will encourage customers to fulfill their financing agreements. Ambeeka will gladly accept down payments for customers desiring shorter financing terms.

Solar Electric Kits. Ambeeka's solar electric systems will be sized to meet the needs of a typical Karagwe household. Very few Karagwe homes have the need to power anything more extravagant than a few fluorescent lights and a radio, and therefore these systems will be small by western standards. Each system will come with a solar panel, a deep-cycle battery, a charge controller, lights, a radio, wiring, connectors, and mounting materials. In order to serve the expected high demand for affordable solar electric systems in Karagwe, all systems will be sold as pre-assembled kits. These kits will be designed to be so simple that end-users will be able to perform the installations themselves. In this way, Ambeeka will minimize the size of its technical staff. Initially, there will be three kit sizes offered. **Table 1** presents a spec and price comparison of Ambeeka's introductory product line. For homes or businesses requiring more power, customized systems will also be available. Furthermore, as the community becomes more prosperous, people will develop more extravagant tastes for electric appliances and equipment, such as television sets, satellite dish receivers, refrigerators, and computers. Ambeeka will continuously readjust this product line according to customers' power needs. In addition, attractive trade-in and scale-up plans will be offered to customers in subsequent years, so that smaller systems can be traded in and up-graded to larger ones.

Table 1. Ambeeka's Initial Product Line

Kit	Size	Components	Price/Month	Price/Year	Gross Margin
1	13 watts	1 light, 1 radio	$24.00	$288.00	72.46%
2	30 watts	2 lights, 1 radio	$48.00	$576.00	80.00%
3	48 watts	3 lights, 1 radio	$72.00	$864.00	94.59%

[14] Based on research conducted in Karagwe by Mr. Spellberg, summer 1999

Pricing Strategy
Ambeeka will price these kits as low as possible while still yielding an attractive profit. Based on Winrock's experience in Indonesia between 1994 and 1998, it is expected that a family living in an impoverished, rural agricultural community will surrender about half of its yearly income for a necessary item such as reliable electricity.[15] With the pricing strategy that Ambeeka has adopted, Karagwe consumers will pay less than half of what a comparable solar electric system would cost from a typical African retailer.

Distribution Strategy
The community center will be used as Ambeeka's administrative office and distribution hub. Most of the components of the solar electric kits will be shipped by sea from suppliers in the U.S. or Europe to the Indian Ocean port of Dar es Salaam, then trucked overland to Karagwe. Ambeeka will also attempt to identify reliable suppliers in South Africa to reduce its dependence on overseas shipping. Upon arrival in Karagwe, CSEW will be responsible for assembling all components into complete solar electric kits, ready for installation. When customers have satisfied their payment schedules, they will be cordially thanked for their business, and invited to pick up their kits from the community center. At this time, customers will be given written instructions on how to install and maintain their new systems. During their payment period, and throughout their duration of ownership, all Ambeeka customers will be invited to attend free educational workshops on using, maintaining, optimizing, and expanding their solar electric systems.

Advertising & Promotion Strategy
Ambeeka will rely greatly on publicity and word-of-mouth advertising to promote these financing plans. The construction of a 15,000-watt solar/wind power station and community center will be tremendous news in Karagwe, and will therefore serve as a very useful promotional tool. Residents will be unable to avoid noticing the sheer scale of this project. Over 100 people will be employed in this undertaking, and every newspaper and radio station in the region will publicly monitor its progress. Like many rural agricultural villages, Karagwe is a tight-knit community, and people tend to be extremely social. Ambeeka will have to do little to instigate excitement and conversation about this project. Once built, the generating facility, featuring a 10,000-watt wind turbine perched on an eighty foot tower, and a 5,000-watt array of sleek solar panels mounted on a 10,000 square-foot scaffold, will serve as a constant advertisement of the electricity that Ambeeka offers.

Due to the visibility of this project, Ambeeka will ensure that high standards of professionalism are maintained at all times. Embroidered uniforms will be distributed to the CSEW technicians that maintain and operate the community center. New, high-quality equipment will be purchased, and the community center itself will have a clean, modern design. Service will be prompt and courteous, and technicians will be well trained and well paid. To complement the publicity aspect, Ambeeka will also post billboards in the heavily trafficked "downtown" area of the Karagwe district. The main purpose of these billboard advertisements will be to inform and remind customers of scheduled educational training sessions and technical demonstrations being held at the community center. In addition, posters will be used to announce new service offerings or price adjustments, as needed. Finally, professionally printed brochures, featuring concise descriptions of the financing plans offered, as well as general information about solar energy, will be widely distributed.

Sales Strategy
Gaspar Makale, the founder and executive officer of CSEW, is a native of Karagwe, and has been installing solar energy systems there for eight years. Mr. Makale's expert reputation is common knowledge in the community. All sales and operational responsibilities will be contracted to CSEW, taking advantage of Mr. Makale's contacts and stature in Karagwe as a solar energy professional. Because CSEW's name is already well known to the community, customers will be dealing directly with a local company that they trust. A customer service office and reception desk will be established at the community center, and CSEW will collect payments at this location. In exchange for these services, and for using the CSEW name to generate trust and loyalty, Ambeeka will pay CSEW a contracting fee based on sales volume. Therefore, CSEW will have an incentive to aggressively generate sales by subscribing new customers, in whatever fashion they deem appropriate or effective.

Marketing & Sales Forecasts
Ambeeka's projected target market in Karagwe is about 19,000 families. There are 58,000 families in the region without electricity. However, these pre-financing plans will be expensive. Furthermore, customers will have to pay all

[15] "The Windpower for Islands and Nongovernmental Development Project with Site Descriptions," preliminary draft by Winrock International for USAID, 1995

of their monthly installments before receiving any equipment. Ambeeka recognizes that this will initially dissuade many potential customers. However, the construction of the power station and community center, as well as the partnership with CSEW, will help to reinforce Ambeeka's trustworthiness, and should neutralize some of these concerns. In addition, Ambeeka will allow subscribed customers to use the community center for free during their contract term. This means that customers will be able to enjoy free access to computers, refrigeration, water distilling, coffee bean processing, telecommunications access, and other services, for up to a year. Ambeeka anticipates subscribing about 250 families in 2001, the first year of operation. After one year, Karagwe residents will witness the delivery of solar electric systems purchased the previous year by their friends, neighbors, and relatives. The demand for these financing contracts will therefore increase exquisitely over the next five years, as Ambeeka's trustworthiness becomes confirmed, and its presence accepted, by the community. Furthermore, similar projects in other parts of the world have demonstrated that the availability of energy systems motivates people to increase their income by working harder, and then to save more of that income, in anticipation of having something valuable to buy. As a result, more Karagwe families will be able and willing to afford Ambeeka's financing plans over time, and the growth rates built into Ambeeka's revenue forecasts reflect this expectation. **Table 2** shows sales and revenue forecasts for the years 2001–2006.

Table 2. Sales & Revenue Forecasts

	2001	2002	2003	2004	2005	2006
Units Sold	250	750	1,875	3,750	5,625	8,438
Revenues	$84,240	$252,720	$631,800	$1,263,600	$1,895,400	$2,843,100

OPERATING STRATEGY

Damien Bonaphaite, a primary school teacher in Karagwe, arrives home after a long day of work. It is night-time in Africa, and pitch black envelops the quiet community. There are no street lights, no glows in the neighbors' windows; only the brilliant stars of the southern cross provide illumination. But on this night, Mr. Bonaphaite arrives to find his house teeming with activity. The solar electric system he spent a year buying has finally arrived, and his family is already putting it to good use. His wife is busily cooking in the kitchen, his eldest son studiously doing homework, and his two youngest children playing Monopoly, all possible due to the streaming radiance provided by the fluorescent lamp in the living room. Had this been a typical night in a typical Karagwe house, Mr. Bonaphaite would have to wait his turn to use one of the household's two kerosene lamps, for he has about thirty exams to grade. In other words, he would be up late, long after his family had retired for the night. But as he greets his family working and playing under this new artificial sun, Mr. Bonaphaite realizes that the "typical" Karagwe evening has now changed forever.

Operations Strategy

Customers will start their lifetime relationship with Ambeeka upon receipt of their first solar electric kit. In time, they will learn to effectively apply the full potential of solar energy, and they will completely replace archaic kerosene lamps and dry cell batteries with the solar electricity that will become the routine hallmark of the future for communities like Karagwe.

All of Ambeeka's operations in Karagwe will be contracted out to CSEW. Mr. Gaspar Makale, founder and CEO of CSEW, will serve as Ambeeka's Chief Operating Officer for this project. Mr. Makale will facilitate dealings with the Tanzanian government, as well as with Karadea, an influential UN-funded non-government organization that will be heavily utilized, both in the construction of the power station, and in ongoing operations.

Scope of Operations

CSEW will be responsible for conducting the following activities in Karagwe:

- **Operating and maintaining the power station and community center**
- **Placing supply orders and maintaining inventory**
- **Overseeing and orchestrating solar kit assembly and distribution**
- **Collecting customer payments**
- **Servicing customer repair calls and manufacturer's warranties**
- **Printing and distributing advertisements, such as billboards, posterboards, and brochures**
- **Subscribing new customers, and up-grading current and past customers**
- **Organizing informational forums and instructional demonstrations**

Ambeeka will negotiate the most attractive supply agreements possible, and all purchases will be made directly from manufacturers at wholesale prices. Additionally, all shipping will occur via ocean, to the Tanzanian port of Dar es Salaam. Supplies will be trucked overland to Karagwe from the Indian Ocean coast. To avoid import duties, all batteries will be purchased in bulk directly from the Chloride Exide Company, a Tanzania manufacturer. Lights, charge controllers, wiring, connectors, and radios will be purchased in bulk from wholesale suppliers in the United States, Europe, or South Africa. Solar modules will be purchased directly from GlobalSolar, Inc, a Denver, Colorado based company with production facilities in India. Wind turbines and towers will be purchased from and installed by Sagrillo Light & Power, of Forrestville, Wisconsin. Building and security materials will be purchased in the United States, South Africa, or Kenya. Ambeeka will be able to legally avoid all import duties through Mr. Makale's association with Karadea, which enjoys complete exemption from most Tanzanian tariff laws. A temporary work force of about 100 will be hired in Karagwe to build the power station and community center. Sagrillo Light & Power will design, oversee, and orchestrate the construction project, with all Ambeeka officers present to oversee progress and to direct funding.

Ongoing Operations
After the power station and community center are completed, a full-time workforce of three to five maintenance technicians and two to four security agents will be hired and paid directly by CSEW for salaries in excess of $1,000 per year. Sagrillo Light & Power will thoroughly train CSEW technicians on proper maintenance and operation of the power station. Insurance on hard assets will be purchased from a trustworthy agency in Tanzania.

CSEW will be charged with the responsibility of maintaining customer relations and satisfaction. This will include subscribing new customers and taking care of existing ones. CSEW will provide free maintenance or repair visits to customers' homes for one year after the equipment's initial installation. Additionally, CSEW will help and encourage customers to upgrade to larger power systems. Used components in good working condition will be accepted as trade-in for credit on a larger system. Furthermore, customers will be encouraged to return their used batteries to CSEW, which will send them out for proper recycling. Price credits towards the purchase of new batteries will be given to all customers who dispose of their old batteries in this manner.

CSEW will be in charge of hiring and maintaining a trained local workforce. Because Mr. Makale has taught at the Karadea Solar Training Facility for six years, he knows who the most competent technicians are, and how to find them in East Africa. Ambeeka will provide the financial resources to help Mr. Makale attract these technicians to Karagwe.

Operating Expenses
Table 3 shows Ambeeka's anticipated operating expenses from 2001—2006.

Table 3. Operating Expenses

	2001	2002	2003	2004	2005	2006
CSEW Contracting Fees	5,000	10,000	20,000	40,000	80,000	160,000
Maintenance Expenses	3,000	3,150	3,308	3,473	3,647	3,829
Marketing Expenses	3,000	3,600	4,320	5,184	6,221	7,465
Insurance and Security	8,000	8,000	8,000	8,000	8,000	8,000
Total	$19,000	$24,750	$35,628	$56,657	$97,867	$179,294

DEVELOPMENT STRATEGY

Development Strategy
Ambeeka will assemble a legal team and incorporate during the first quarter of 2000. After completing and revising the business plan, the company will begin to seek grants and investments from accredited private investors, multi-national relief agencies, and, possibly, from large corporations.

There will be some need for product development and prototyping in Karagwe. Solar electric systems consist of four main components. The solar panel harnesses photon energy from the sun, converting radiation into electricity. This electricity is then conditioned by a charge controller before it is sent to a battery for storage. The charge controller regulates the battery's state of charge, preventing it from being damaged. The appliance, then, receives its power directly from the battery. This system has been used and perfected for well over fifty years, and Ambeeka's kits will not deviate from this simple design.[16] Nevertheless, Ambeeka's solar electric systems will be sold as pre-assembled kits. Because customers will be expected to perform their own installations, Ambeeka will need to test customer reaction to these kits. Specifically, Ambeeka will assemble several versions in order to develop a packaging method that optimizes simplicity for the customer. Prototype testing will be conducted simultaneously with the construction of the power station, and will take less than one month to complete.

Once in Karagwe, Ambeeka and CSEW will focus on developing market demand for the financing services. Because these financing plans will be expensive, and because no equipment will be distributed until all payments have been received, it will take time for Ambeeka to earn the trust of Karagwe's consumers. However, Ambeeka is convinced that this can be done within one year. First, utilization of CSEW, a Karagwe company that people already know and trust, will help to lend credibility to Ambeeka's promises. Second, the power station and community center will represent a symbol of Ambeeka's long-term commitment to the community. Finally, Ambeeka will lead by example; when working solar kits are delivered to the first wave of customers, Ambeeka's trustworthiness will be ultimately confirmed. By this time, Karagwe's demand for these systems will be growing fantastically.

Development Timeline
Project Karagwe will be launched in five major phases, during the following estimated dates:

Phase 1	**Incorporation: Finalize business plan, incorporate, file with the U.S. SEC, build project website: January—March, 2000**
Phase 2	**Venture Financing: $1 million for construction of power station & community center, and to jump-start operations: Februrary—September, 2000**
Phase 3	**Construction of power station & community center: October—December, 2000**
Phase 4	**Optimize solar kit packaging and assembly: November, 2000**
Phase 5	**Subscribe customers to solar kit financing plans: December, 2000**

Development Expenses
Ambeeka estimates that the company will need $2,000 to $5,000 for incorporation and legal fees, which will be paid by Mr. Spellberg during the first quarter of 2000.

[16] Please see **Appendix B** for a schematic diagram of a solar electric system

MANAGEMENT TEAM

Company Organization
Ambeeka's principal founders, Jason Spellberg and Gaspar Makale, will control the majority of the company's equity. Ambeeka will employ both Mr. Spellberg and Mr. Makale on a full-time basis. A Board of Directors will be assembled if and when investors demand one. A Board of Advisers has been compiled in the meanwhile. This Board is composed of experts with extensive experience relevant to the area of international rural development. All of these advisers have agreed to lend their assistance free of charge. Please see **Appendix E** for a detailed description of Ambeeka's Board of Advisers, and **Appendix F** for the resumes of Ambeeka's founders.

Management Team
***Jason P. Spellberg**, Executive Officer*. Mr. Spellberg is Ambeeka's primary visionary. He will earn his MBA degree in Entrepreneurship from the University of Colorado at Boulder in May 2000. He has taken formal coursework in both PV and wind system design and installation at Solar Energy International (SEI) of Carbondale, Colorado, arguably the most respected and well-known RE training facility in the world. Mr. Spellberg has many contacts in the industry, and knows key people at the National Renewable Energy Laboratory (NREL), the Public Service Company of Colorado, GlobalSolar, Inc., Energy Alternatives Africa, and the Tanzania Investment Center. He has traveled extensively in East Africa, and conducted market research on solar financing in Karagwe while doing an internship for CSEW during the summer of 1999.

***Gaspar V. Makale**, Africa Operations Officer*. Mr. Makale, Ambeeka's principal co-founder, will serve as the company's Officer for Africa Operations. Mr. Makale is a native of Karagwe, Tanzania, and is a master electrician. In 1999, he founded the Columbia Solar Electronics Workshop (CSEW) with financial backing from Mr. Spellberg. CSEW offers a wide range of electrical services in the Karagwe area and beyond. Mr. Makale has installed over 500 solar electric systems in his career, and he has taught the PV systems design and installation course at the Karadea Solar Training Facility for six years. For the last three of those years, Mr. Makale has served as the school's resident chief of staff. The school itself is located in Karagwe, and is operated and funded by one of Tanzania's most important Non-Government Organizations, the Karagwe Development Association (KARADEA), with which Mr. Makale has very close ties. In a period of only eight years, the Karadea Solar Training Facility has arguably become the most respected solar energy technical school in the Southern Hemisphere. Mr. Makale has earned the distinction "Fundi," which, in Kiswahili means "Master Technician." He is unquestionably Tanzania's premier installer of PV systems, and one of the most admired men in Karagwe.

Administrative Expenses
Table 4 shows Ambeeka's expected administrative expenses for 2001—2006.

Table 4. Administrative Expenses

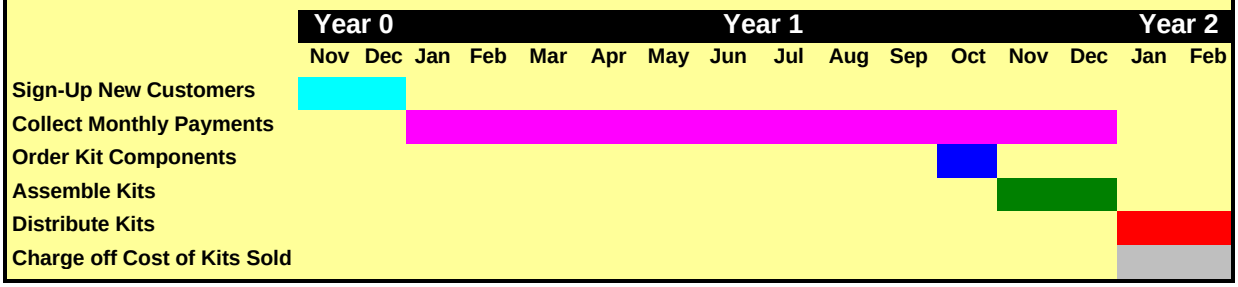
	2001	2002	2003	2004	2005	2006
Salary, Mr. Spellberg	30,000	36,000	43,200	51,840	62,208	74,650
Benefits, Mr. Spellberg	3,000	3,600	4,320	5,184	6,221	7,465
Salary, Mr. Makale	2,500	3,000	3,600	4,320	5,184	6,221
Travel Expenses	4,000	4,800	5,760	6,912	8,294	9,953
Legal & Accounting Services	4,000	4,800	5,760	6,912	8,294	9,953
Office Expenses	500	600	720	864	1,037	1,244
Total	$44,000	$52,800	$63,360	$76,032	$91,238	$109,486

FINANCIAL SUMMARY

Financial Assumptions

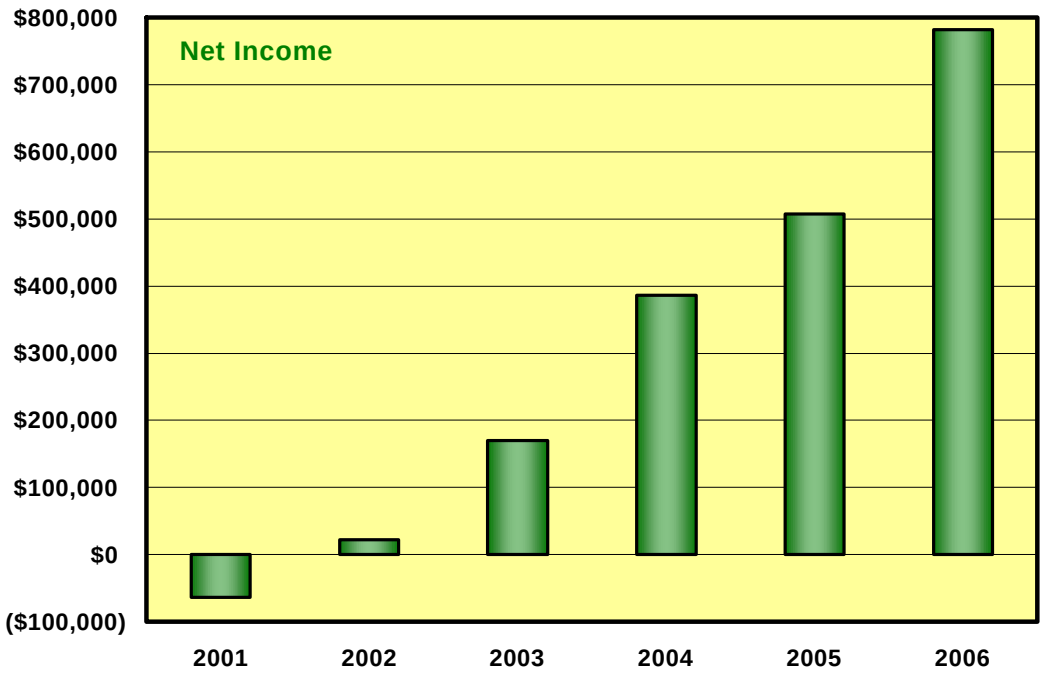
The financial statements presented in **Appendix G** reflect only Ambeeka's forecasted sales of pre-financing contracts in Karagwe. Revenues generated from community center services are not included in these forecasts, nor are potential revenues generated from projects in locations other than Karagwe. In addition, the financial statements assume that Ambeeka makes no capital expenditures during the explicit period of 2001—2006. Due to the nature of the pre-financing plans, the bulk of customer payments will be collected before kit components will be ordered. This will have a positive effect on net income and cash flow. **Table 5** presents Ambeeka's expected operational calendar, and shows why reported net income and cash flow will be increased by the nature of the pre-financing plans.

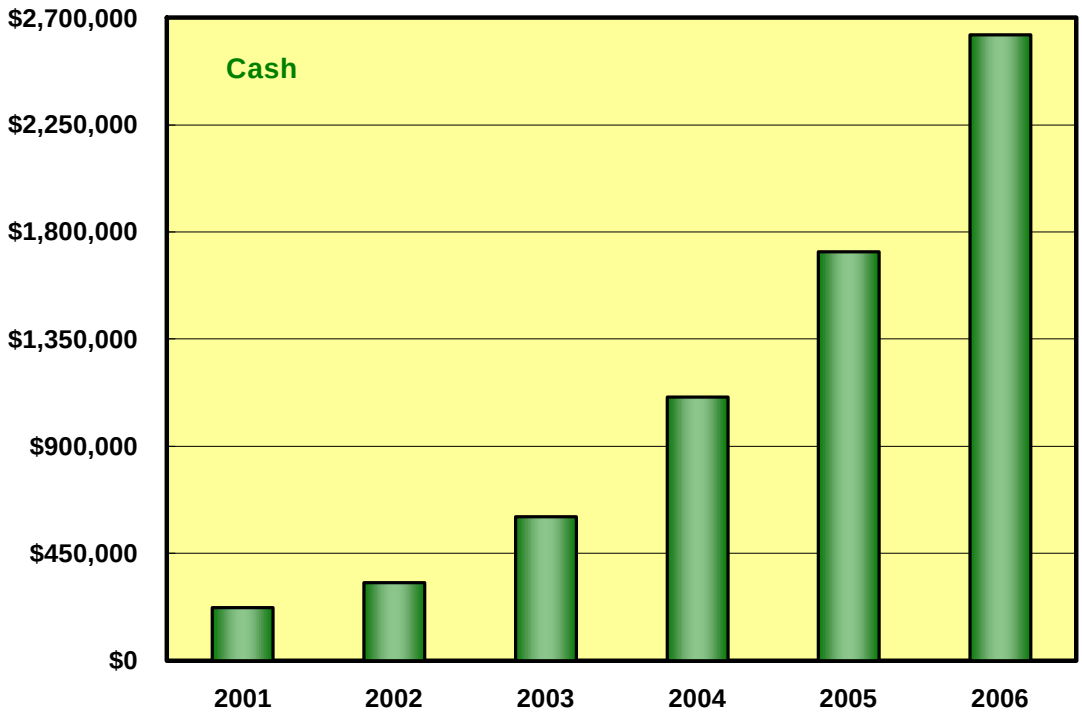
Table 5. Operational Calendar



Financial Forecasts

The following charts graphically illustrate Ambeeka's growing net income and cash flow balance from 2001—2006.





Capital Requirements
Ambeeka requires $800,000 in start-up capital for the construction of the power station and community center. An additional infusion of $200,000 in cash at the end of 2000 will be needed to jump-start operations; this includes a significant safety cushion in case of financial emergency.

Ratio Analysis
Table 6 shows Ambeeka's comparative financial ratios for operational years 2001—2006. The increasing return on equity figures demonstrate that Ambeeka does not plan to seek further external capital to expand the operation in Karagwe. The return on assets figures do not increase as substantially, because this analysis assumes that Ambeeka does not expend any cash during the first six years of operation.

Table 6. Financial Ratios	2001	2002	2003	2004	2005	2006
Profitability						
Cost of Kits Sold	0.00%	19.04%	22.84%	28.55%	38.07%	38.07%
Operating Expenses	74.79%	30.69%	15.67%	10.50%	9.98%	10.16%
Gross Margin	-74.75%	14.57%	44.97%	51.04%	44.63%	45.86%
Profit Margin	-74.75%	8.74%	26.98%	30.63%	26.78%	27.52%
Return on Equity	-6.30%	2.21%	17.05%	38.70%	50.76%	78.23%
Return on Assets	-6.36%	1.99%	11.18%	16.77%	15.87%	17.11%
Activity						
Total Asset Turnover	0.09	0.23	0.41	0.55	0.59	0.62
Fixed Asset Turnover	0.12	0.39	1.13	2.63	4.74	8.88
Liquidity						
Quick Ratio	4.19	2.14	1.53	1.40	1.46	1.49

Ratio Comparisons. There are no comparable businesses that release their financial ratios to the public. Most of the activity in the rural development industry is driven and subsidized by industrialized governments and World Bank contracts. There are several private enterprises that have been largely successful in this realm, but their financial statements are not available for comparison.

Financial Risks[17]

Currency Translation. All of Ambeeka's revenues will be collected in Tanzanian shillings, and almost every shilling collected will have to be converted into U.S. dollars in order to meet the company's major expense accounts. Although the Tanzanian shilling has deflated considerably against the dollar over the past eighteen months, this trend may not continue. As far as the founders know, there are no market-based instruments available for hedging this currency risk. As such, all financial forecasts assume that Ambeeka will lose 5% of its revenue to currency exchange fluctuations and expenses. In order to minimize exposure, almost all collected Tanzanian money will be immediately converted into U.S. dollars by establishing a corporate forex account at the Tanzania National Bank. This account will allow for currency exchange at a competitive market rate, and will also enable Ambeeka to automatically wire transfer all funds directly into a corporate account at either Citibank or the Chase Manhattan Bank in Denver. This will be Ambeeka's short-term answer to contending with currency risk. For the long-term, Ambeeka will neutralize currency risk by diversifying its operations and holdings into other areas of the world.

Political and Economic Stability. The countries surrounding Tanzania's western border have experienced a great deal of strife over the past ten years, characterized by anarchy, exodus, bloody violence, and massive inflation. In Tanzania, these regional pressures have contributed to high unemployment and double-digit inflation. Nevertheless, Tanzania has demonstrated 38 years of political stability, during which time the government has transferred power peacefully on three different occasions, most recently in 1994. There is a substantial World Bank presence in Tanzania, as well as in Kenya and Uganda. The Tanzanian government has set up an Investment Center to aid foreigners in identifying lucrative opportunities in Tanzania. Consistent with this measure, the government has also adopted extremely liberal tax and import laws in an effort to attract foreign investment. Ambeeka is confident that the political and economic climate in Tanzania is becoming more and more favorable for business every day, and that real progress is being made to protect Tanzania's economy and infrastructure from the instability occurring in neighboring regions.

Coffee. Karagwe residents depend heavily on coffee for their revenue. Economically, coffee harvests can be affected by climate or market prices, and this cannot be ignored as a potential threat to Ambeeka's success in Karagwe. However, Ambeeka's presence in Karagwe will drastically improve the region's prosperity, and the community center will help to spark an entrepreneurial spirit by providing new opportunities for small business in Karagwe. In short, Ambeeka's commitment for a long-term, value-enhancing presence in Karagwe will itself significantly neutralize this risk by helping the community to diversify and expand its economy. Furthermore, Ambeeka will explore the possibility of accepting coffee as payment for solar kits, which might prove to be another effective strategy for neutralizing currency translation risk.

Cross-Cultural. There is an operational risk inherent whenever a company in one country attempts to do business in another. This "distance" risk will be mitigated in Karagwe through the partnership with CSEW, which will handle all day-to-day operations of the business. Additionally, Ambeeka will maintain a full-time Colorado-based staff, as well as an expanding travel budget, so that Karagwe, and future sites in other countries, will be visited on a regular basis.

Exit Strategy

This proposed project in Karagwe will require a long-term commitment. In Karagwe, Ambeeka will generate cash flows that will be used to finance project expansions into other areas of the world, such as West Africa, Asia, and Latin America. Once Ambeeka's concept has been proven, and the potential for further growth demonstrated, Ambeeka will most likely exit via a management buy-out. Another real possibility will be to take the company public. Demonstration of substantial and sustainable growth, combined with the establishment of a global brand name recognition, should make this a viable exit option. In the past decade, several mutual funds have been established that explicitly invest with environmental companies, and this demonstrates that there is a public capital market willing to purchase equity in a company like Ambeeka. In any case, Ambeeka does not foresee an exit occurring until at least 2006.

[17] For a comprehensive background on the challenges of conducting business in Tanzania, please see the author's paper entitled *Tanzania: Developing Strategies for Effective Business Practices*, available in Adobe Acrobat format from the Ambeeka website, www.Ambeeka.com

Investment Requirements
Mr. Spellberg has already invested $8,000 in administrative, travel, and research expenses to write this business plan. In the near future, Ambeeka will require an additional $2,000 to $5,000 for incorporation and legal expenses, plus $1 million in seed venture financing to launch the project in Karagwe. **Table 7** presents an itemized breakdown of the venture financing needed.

Table 7. Itemization of Investment Needed

Power Station	
5,000 Watt Solar Array	50,000
10,000 Watt Wind Generator	50,000
Power Conditioning Equipment	50,000
Power Storage Equipment	50,000
Security Equipment	10,000
Wiring and Connectors	10,000
Labor	30,000
Total Cost of Power Station	$250,000
Community Center	
Coffee and Fruit Processors	175,000
Refrigeration & Freezing Equipment	80,000
Computing and Telecommunications Center	100,000
Water Pumping Facility	60,000
Convention Center and Theatre	25,000
Battery Charging Station	20,000
2 Work Vans	20,000
Workshops	15,000
Office Space	5,000
Furniture	5,000
Security Equipment	5,000
Labor	40,000
Total Cost of Community Center	$550,000
Total	
Power Station	250,000
Community Center	550,000
Cash for Operations	200,000
Total Venture Round B Investment	$1,000,000

In addition, the company will seek assistance in further developing legal, distribution, marketing, and financial strategies for conducting business internationally. Therefore, Ambeeka will require significant strategic support, as well as capital, in launching this venture.

Project Valuation
Table 8 shows the valuation analysis for Ambeeka's project in Karagwe. This estimation is based on expected net income in 2006 multiplied by a factor of three. This multiple reflects Ambeeka's expectation that the services offered at the community center will be 75% of total net income. This valuation analysis unequivocally confirms Ambeeka's intention to provide a positive return to its investors. This is consistent with the company's mission statement, which mandates that Ambeeka will *profitably* empower underprivileged communities through the application of RE.

Table 8. Net Income-Based Valuation	2006
Expected Revenue from Pre-Financing Program	$2,843,100
Expected Revenue from Community Center	$8,529,300
Total Expected Revenue	$11,372,400
Expected Profit Margin	27.52%
Expected Net Income	$3,129,282
P/E Multiple	10
Expected Valuation	$31,292,815
Discount Rate	50%
Present Value, Year 2000	$2,243,115

Offering

Ambeeka's required $1 million capital investment will be obtained through a venture round financing period conducted during first half of 2000. Ambeeka will attempt to obtain the majority of this capital either from an environmental project investment agency such E & Company, or in the form of a partnership with a large, multinational corporation interested in penetrating emerging markets. Ideally, this will be an electronics or telecommunications company that has substantial financial, marketing, and legal resources. Potential corporate partners include companies such as General Electric, Philips, Sharp, Magnavox, Toshiba, Thompson's of France, and a host of streamlined, globally-aggressive telecommunications companies. Ambeeka will also seek and accept financing from private, accredited investors such as business Angels, in accordance with all U.S. and Tanzanian securities laws.

Ambeeka will prefer to structure this investment agreement as an exchange of services partnership agreement, but, if necessary, equity can and will be granted in return for capital. Because the founders want to maintain cash flows for use in future project expansions, and not to buy back common stock, Ambeeka will attempt to retain 67% of its equity in the control of management throughout both rounds of financing. Additionally, the company will explore the possibility of leveraging a partnership or equity investment with a loan from a government or non-profit relief agency such as USAID or the Africa Project Development Fund.[18]

The markets in which Ambeeka will operate have a tremendous long-term potential for economic development. Ambeeka has the knowledge and the local contacts to bring electricity and prosperity to these regions. Eventually, these markets will develop a substantial demand for electronics, telecommunication, and information technologies. Ambeeka's ideal investor and/or corporate partner will have the vision and the desire to penetrate these markets early and aggressively. They will have the resources to provide significant financial, logistical, operational, marketing, and legal support. In exchange, a partner company will be granted exclusive supply and branding rights for all products and services that Ambeeka offers. In addition, Ambeeka will actively help a partner company to market its product(s) at the grass roots level by employing locals to build a loyal, long-term customer base within their communities. By providing underdeveloped communities with affordable and dependable electricity, Ambeeka will help pave the way for prosperity and economic development to permeate emerging markets all over the world.

[18] The financial statements in **Appendix G** assume that all capital raised is used to purchase equity

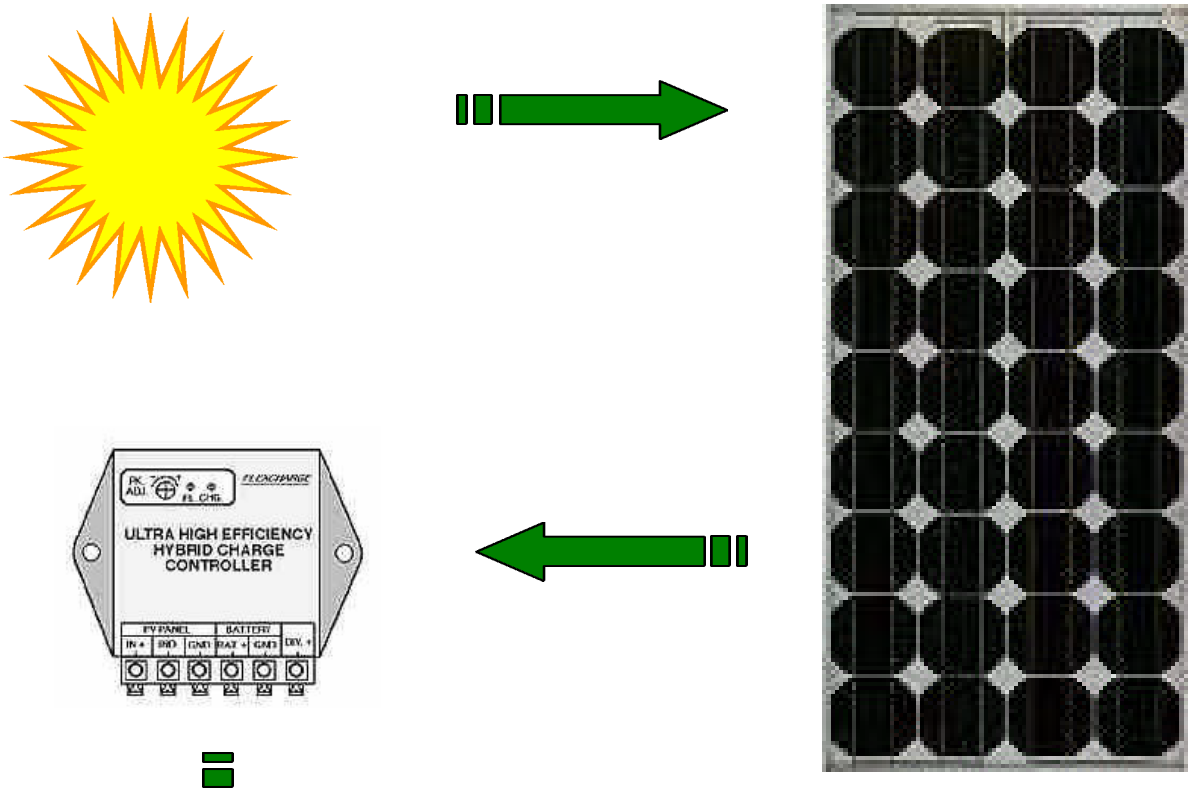
APPENDIX A MAPS

Karagwe


Tanzania
International boundary
Region boundary
National capital
Region capital
Railroad
Road
0 150 Kilometers
0 150 Miles
Regions of Zanzibar a
1 Pemba North
2 Pemba South
3 Zanzibar North
4 Zanzibar Urban/West
5 Zanzibar Central/South
a Zanzibar comprises the islands of Zanzibar and Pemba.
Boundary representation is not necessarily authoritative
UGANDA
KENYA
RWANDA
BURUNDI
ZAIRE
ZAMBIA
MALAWI
MOZAMBIQUE
INDIAN OCEAN
Lake Victoria
Lake Tanganyika
Lake Rukwa
Lake Nyasa
Lake Natron
Lake Eyasi
Lake Manyara
Lake Edward
Ukerewe Island
Mafia Island
ZIWA MAGHARIBI
MARA
MWANZA
SHINYANGA
KIGOMA
TABORA
ARUSHA
KILIMANJARO
SINGIDA
DODOMA
TANGA
RUKWA
MBEYA
IRINGA
MOROGORO
PWANI
DAR ES SALAAM
LINDI
MTWARA
RUVUMA
Kampala
Entebbe
Jinja
Kasese
Masaka
Mbarara
Kabale
Kigali
Goma
Bujumbura
Bukoba
Musoma
Mwanza
Biharamulo
Kahama
Shinyanga
Nzega
Kigoma
Ujiji
Uvinza
Tabora
Singida
Kondoa
Dodoma
Arusha
Moshi
Kilimanjaro
Nyumba ya Mungu Dam
Nairobi
Nakuru
Nyeri
Narok
Magadi
Kisumu
Butere
Nanyuki
Isiolo
Kindaruma dams
Tsavo
Voi
Malindi
Mombasa
Tanga
Korogwe
Pangani
Pemba
Wete
Mkoani
Mkokotoni
Zanzibar
Koani
Kibaha
Dar es Salaam
Morogoro
Kilosa
Iringa
Ifakara
Kilwe Kivinje
Kilindoni
Lindi
Mtwara
Masasi
Tunduru
Songea
Njombe
Mbeya
Tukuyu
Tunduma
Mpui
Sumbawanga
Mpanda
Kalemie
Moba
Mbala
Kasama
Chitipa
Karonga
Mzuzu
Nkhata Bay
Lundazi
Kasungu
Nkota Kota
Mchinji
Augusto Cardoso
Lichinga
Marrupa
Montepuez
Mueda
Pemba

APPENDIX B

Simplified schematic diagram of a basic solar electric system, with arrows indicating direction of energy flow.



Photovoltaic Module

DC Load or Appliance

Battery

APPENDIX C

GLOBAL ENTREPRENEURIAL RE ENTERPRISES

Organization	Type	Location
CAT Consultancy	Profit	Wales
Cinergy Global Power	Profit	United Kingdom
E & Company	Profit	New Jersey, USA
Econergy International Corporation	Profit	Colorado, USA
Energy & Environmental Ventures, LLC	Profit	New England, USA
Energy Alternatives Africa	Profit	Kenya
Energy Power Resources, Ltd.	Profit	England
Enersol	Non-Profit	New England, USA
Global Impressions, Ltd.	Profit	United Kingdom
Hyder	Profit	Wales
Intermediate Technology Consultants	Profit	United Kingdom
Nykomb Synergetics AB	Profit	Sweden
Plenum Energy	Profit	Germany
PowerGen	Profit	United States
Ramboll	Profit	Denmark
Solar Bank International	Profit	United States
Soluz	Profit	New England, USA
SunTree	Profit	Israel
The Grameen Bank/Grameen Shakti	Non-Profit/Profit	Bangladesh
TradeWind Insurance	Profit	United States

APPENDIX D SURVEY

During the Summer of 1999, Mr. Spellberg conducted an informal survey of Karagwe citizens. As an American, it is very difficult to obtain reliable information from people there, because they will always try to make themselves sound poorer than they really are, in the hope of receiving a handout or "sponsorship." Therefore, questions concentrated on qualitative measures rather than quantitative. In other words, discussion of actual dollar figures was avoided. Nevertheless, a good measure of Karagwe's demand for solar electricity, and why it is not being met, was obtained from these conversations. In some cases, a translator was used. The following questions were posed, generally in this order:

1) **What other electrical appliances do you own?**
2) **How do you feel about the currently available energy sources in Karagwe?**
3) **What do you know about solar energy?**
4) **Do you know Gaspar Makale?**
5) **Why is solar energy not used more readily in Karagwe?**
6) **In which village do you live?**
7) **How big is your house?**
8) **How do you light your house and power your radios?**
9) **What would you use solar energy for, if you could get it?**

It is important to note that these questions were *not* posed in a formal interview environment, but during casual conversation with almost every local that Mr. Spellberg met. Most of these conversations took place on the streets, in bars and restaurants, or on shuttle rides between villages. Overwhelmingly, the results of these conversations demonstrated that, in Karagwe, solar power is viewed as an expensive luxury item that only the richest families possess. Furthermore, it was clear that almost every individual had a basic understanding of what solar energy is, and what it can do. The most important message of these conversations is that a tremendous latent demand for solar energy exists in Karagwe, and that the major obstacle impeding its widespread use is affordability.

APPENDIX E BOARD OF ADVISERS

April Allderdice. Ms. Allderdice has developed RE policy in Bangladesh, in Egypt, and in many parts of Latin America. She worked at NREL's International Programs Division for five years, and graduated from Solar Energy International's RE education program. Most significantly, Ms. Allderdice was instrumental in aiding the Grameen Bank of Bangladesh to develop a working micro-finance plan for solar electric systems. The Grameen model is now regarded to be the most successful solar leasing program in the history of the industry, and the bank has become one of the most fortuitous lending institutions in the world with a 95% pay-back rate. Ms. Allderdice is currently earning her MBA degree at Columbia University in New York. Her experience developing a successful business plan to bring affordable solar energy systems to families in Bangladesh will be extremely valuable to this project.

Christy Barnes. Ms. Barnes has over six years of experience in the energy industry, as well as several years' experience in the global development field. Currently, she is employed by Econergy International Corporation (EIC), where she develops training curriculum for electric utility managers in developing countries. This curriculum, which has been implemented in Ghana, Brazil, and Mexico, teaches utility managers strategies for maximizing energy efficiency. Ms. Barnes is currently earning her MBA degree in Entrepreneurship and Marketing from the University of Colorado. She played an instrumental role in the preparation of this business plan, and, as one of Ambeeka's most accessible advisers, will maintain close involvement with Ambeeka in years to come. At some point in the future, Ms. Barnes may join the company's full-time staff.

Todd Bartholf. Mr. Bartholf is a director at Econergy International Corporation (EIC), and has over twenty years of experience in the RE industry. During his impressive career, Mr. Bartholf has provided strategic planning, project development, and technical assistance as a consultant to numerous organizations all over the world. Prior to joining EIC, Mr. Bartholf served as a Senior Program Officer at Winrock International, a non-profit development assistance organization. While at Winrock, Mr. Bartholf spearheaded the development of RE projects in several Asian countries. His advice on technical and economic matters, as well as his contacts within the industry, will prove highly valuable to Ambeeka.

Robert Byrne. Mr. Byrne is a British ex-patriot who has been installing solar electric systems off an on in eastern and southern Africa for ten years. Currently, he is working with the Maasai people in Arusha, Tanzania, on a large-scale solar project to electrify several remote community centers and schools on tribal lands. Mr. Byrne is literally in the trenches, both as a system installer and integrator, and as a fundraiser. He has important contacts with non-government organizations throughout Europe and Africa, and knows key RE producers and distributors. His assistance with the Tanzanian government, with suppliers and distributors, and with private fundraisers, will prove vital to Ambeeka's success in Karagwe. He will also serve as an ideal sounding board for idea testing.

Francisco Delgado, Ph.D. Dr. Delgado is a Professor of Finance at the University of Colorado. He specializes in the area of risk management, particularly as it relates to international finance and currency exchange. A native of Peru, Professor Delgado has consulted for numerous banks in Latin America on currency hedging, and has developed financial strategies to help these banks effectively conduct business across international borders. Professor Delgado's expertise in this realm will help Ambeeka to manage the serious financial risks associated with doing business in Tanzania.

Mary Grady, MBA. Ms. Grady has worked in the U.S. RE industry for over seven years in both the public and private sectors. Most recently, she worked for Kyocera Solar International, one of the world's largest producers of PV technology, as well as for the U.S. Export Council for RE. She is now working for Winrock International. Ms. Grady has lived and worked in Brazil, and knows the global RE industry as well as anybody. She will aid in developing strategies for executing this business plan, and in locating potential investors.

Peter Lilienthal, Ph.D. Dr. Lilienthal is a Senior Economist at the National Renewable Energy Laboratory (NREL) in Golden, Colorado. He has been the Senior Analyst of NREL's International and Village Power Program for nine years, and has worked in the RE field since 1978. He specializes in conducting feasibility and optimization analyses for RE projects in developing nations. Dr. Lilienthal will continue to assist Ambeeka by reviewing and editing the business plan, by providing fresh ideas and approaches, and by connecting Ambeeka's management team with other key people in the industry.

Bernard Oswego. Mr. Oswego is a native of Kenya, and is the Chief Operations Officer at Energy Alternatives Africa (EAA), probably Kenya's pre-eminent large-scale RE consulting firm. He has seven years of hands-on experience installing solar electric systems. For EAA, Mr. Oswego evaluates project financing and feasibility, and negotiates contracts with the World Bank and other international lenders. He is fluent in Kiswahili, and knows key people in East African government, financial, and non-profit organizations.

Mick Sagrillo. Mr. Sagrillo, owner of Sagrillo Power and Light, has been designing, installing, repairing, and building wind generators for twenty years. He is perhaps the nation's best-known specialist in the commercial wind energy industry, and has worked on RE development projects in 29 foreign countries. He has consulted for NREL, as well as numerous other energy organizations all over the world, and has taught the wind energy class at SEI for the past six years. In addition to serving as a consultant for the business plan, he has agreed to oversee the design and construction of Ambeeka's power station and community center in Karagwe.

Erich Stephens. Mr. Stephens served two years in Paraguay with the Peace Corps, and has since graduated from SEI's RE education program. He has consulted for the Nature Conservancy, and for the past two years has been instrumental in the establishment of a large-scale commercial wind power project in New England. Mr. Stephens has been a dedicated proponent of this project since its inception, and may join the Ambeeka management team as a full-time employee within a year.

Johnny Weiss. Mr. Weiss has been an Executive Director of Solar Energy International (SEI), arguably the world's most respected RE training center, since 1991. He has been training people in RE installation since 1981, and has nearly thirty years of experience as a licensed general contractor in solar home building and design. During his career, Mr. Weiss has taught solar installation in developing countries all over the world. He has agreed to assist with the on-site design and construction of Ambeeka's power station and community center.

Ron White, Ph.D. Dr. White is a Senior Analyst at NREL's International Programs Division. He has over twenty years of experience advising and consulting on RE projects in sub-Saharan Africa, and has traveled extensively in the region. As one of Ambeeka's most accessible and supporting advisers, Dr. White will continue to provide constructive criticism, new ideas, and liaison with potential consultants and investors.

JASON P. SPELLBERG

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OBJECTIVE

To build Ambeeka Energy Solutions into a global provider of renewable energy products and services

EDUCATION & EXPERIENCE

University of Colorado at Boulder — **Boulder, CO**
Master's Degree in Business Administration — Expected Graduation May, 2000

- Major in Entrepreneurship; 3.7 cumulative GPA
- Awarded $3,500 in merit-based fellowships for study in Entrepreneurship
- Helped GlobalSolar, Inc of Wheat Ridge, CO develop a marketing strategy for introducing their solar module into East Africa as an independent project for MBA credit
- Teaching Assistant, MBA Business Statistics course

Columbia Solar Electronics Workshop — **Karagwe, Kagera, Tanzania**
Summer Internship — June – August, 1999

- Conducted the feasibility analysis for the Ambeeka business concept
- Forged a business partnership with Gaspar Makale, Tanzania's leading installer of solar electric systems
- Made contacts with key industry people including Mark Hankins, Bernard Oswego, and Robert Byrne, as well as officials at the Karagwe Development Association (KARADEA), the Tanzania Foreign Investment Center, the Tanzania Revenue Authority, the Tanzania Electric Supply Company, and the Africa Projects Development Fund

Solar Energy International — **Carbondale, CO**
Renewable Energy Education Program — June – August, 1998

- Completed coursework in PV system design and installation
- Helped to install a 1.5 kW grid-tied PV system on a home in Edwards, CO
- Completed coursework in the fundamentals of wind generator operation and installation
- Helped to install a 1.5 kW wind generator on a remote home near Fairplay, CO

Amgen, Inc. — **Boulder, CO**
Department of Inflammation — November, 1993 – May, 1998
Research Associate in Cell Biology & Immunology

- Worked on over 20 project teams to develop novel therapeutics for treating inflammatory diseases
- Responsible for researching the effects of drugs on cells and organ systems, reporting data at team meetings, contributing to strategies for drug development, and coordinating cell biology research efforts with those of other departments
- Supervised 3 student interns to help with research and project implementation
- Wrote 2 and co-authored 7 scientific papers
- Promoted twice for ability to work in teams, handle multiple responsibilities, conduct sound science, function without supervision, and take primary initiative
- Presented data in front of 200 cell biologists at the international Keystone Symposium

Northwestern University — **Evanston, IL**
Bachelor's Degree in History & Immunology — Graduated June, 1993

- Chairman of fraternity Rush committee; led the most successful recruitment program on campus
- Chairman of Philanthropy committee; led an effort which raised $82,000 for diabetes and ALS research, and honored by the Saturn Corporation for dedication to community service

ADDITIONAL INFORMATION

- Skilled in Microsoft Office, including Access databases, as well as using Excel spreadsheets for financial analyses and optimization modeling (maximizing profits or minimizing costs using the Solver function)
- Written and conversational literacy in Spanish
- Able to travel extensively, and to remote locations (have been to 17 countries on 4 continents); self-sufficient and culturally adaptive

APPENDIX G FINANCIAL STATEMENTS

Pricing Strategy and Sales & Revenue Forecasts

Pricing of Financing Contracts	Kit 1		Kit 2		Kit 3	
	per month	per contract	per month	per contract	per month	per contract
Price	$24.00	$288	$48.00	$576	$72.00	$864
Gross Profit Margin		72.46%		80.00%		94.59%

Anticipated Sales Breakdown	Kit 1	Kit 2	Kit 3
Percent of Total Sales	85%	13%	2%

Sales Forecasts	2001	2002	2003	2004	2005	2006
Sales Growth Rate		**200%**	**150%**	**100%**	**50%**	**50%**
Kit 1 Sales	213	638	1,594	3,188	4,781	7,172
Kit 2 Sales	33	98	244	488	731	1,097
Kit 3 Sales	5	15	38	75	113	169
Total Kits Sold	**250**	**750**	**1,875**	**3,750**	**5,625**	**8,438**

Total Customers Served, 2001-2006 **20,688**

Revenue Forecasts	2001	2002	2003	2004	2005	2006
Kit 1	$61,200	$183,600	$459,000	$918,000	$1,377,000	$2,065,500
Kit 2	$18,720	$56,160	$140,400	$280,800	$421,200	$631,800
Kit 3	$4,320	$12,960	$32,400	$64,800	$97,200	$145,800
Total Revenues	**$84,240**	**$252,720**	**$631,800**	**$1,263,600**	**$1,895,400**	**$2,843,100**

Cost of Kits Sold and Inventory Holding Schedule

Cost of Kits Sold	Kit 1		Kit 2		Kit 3	
	Description	Cost	Description	Cost	Description	Cost
Photovoltaic Module	13 Watt	$69.00	30 Watt	$125.00	48 Watt	$171.00
Battery	12 V, 20 Amp-Hr	$20.00	12 V, 60 Amp-Hr	$60.00	12 V, 100 Amp-Hr	$100.00
Charge Controller	2.5 Amp	$30.00	5 Amp	$50.00	5 Amp	$50.00
Loads	1 light, 1 radio	$10.00	2 lights, 1 radio	$15.00	3 lights, 1 radio	$20.00
Connectors & Wiring		$15.00		$25.00		$35.00
Mounting		$10.00		$15.00		$20.00
Shipping (Whole Kit)		$13.00		$30.00		$48.00
Total Cost		**$167**		**$320**		**$444**

Inventory Holding Schedule	2001	2002	2003	2004	2005	2006
Inventory at Beginning of Year	0	250	750	1,875	3,750	5,625
Kits Installed During Year	0	250	750	1,875	3,750	5,625
New Kits Ordered at End of Year	250	750	1,875	3,750	5,625	8,438
Inventory at End of Year (Units)	250	750	1,875	3,750	5,625	8,438
Inventory at End of Year (Value)	**$48,108**	**$144,323**	**$360,806**	**$721,613**	**$1,082,419**	**$1,623,628**

Consolidated Pro-Forma Financial Statements, 2001--2006

Income Statement	2001	2002	2003	2004	2005	2006
Revenue	$84,240	$252,720	$631,800	$1,263,600	$1,895,400	$2,843,100
Cost of Kits Sold	$0	$48,108	$144,323	$360,806	$721,613	$1,082,419
Gross Profit	$84,240	$204,613	$487,478	$902,794	$1,173,788	$1,760,681
CSEW Contracting Fee	$5,000	$10,000	$20,000	$40,000	$80,000	$160,000
Administrative Expense	$44,000	$52,800	$63,360	$76,032	$91,238	$109,486
Maintenance Expense	$3,000	$3,150	$3,308	$3,473	$3,647	$3,829
Marketing Expense	$3,000	$3,600	$4,320	$5,184	$6,221	$7,465
Insurance & Security Expense	$8,000	$8,000	$8,000	$8,000	$8,000	$8,000
Total Operating Expenses	$63,000	$77,550	$98,988	$132,689	$189,106	$288,780
Operating Profit	$21,240	$127,063	$388,490	$770,105	$984,682	$1,471,901
Currency Exchange Loss	$4,212	$10,231	$24,374	$45,140	$58,689	$88,034
Depreciation Expense	$80,000	$80,000	$80,000	$80,000	$80,000	$80,000
Earnings Before Income Taxes	($62,972)	$36,832	$284,116	$644,965	$845,992	$1,303,867
Income Tax Expense	$0	$14,733	$113,646	$257,986	$338,397	$521,547
Net Income	**($62,972)**	**$22,099**	**$170,470**	**$386,979**	**$507,595**	**$782,320**

Balance Sheet	2001	2002	2003	2004	2005	2006
Assets						
Cash	$221,874	$328,492	$603,437	$1,106,318	$1,716,810	$2,629,063
Inventory	48,108	144,323	360,806	721,613	1,082,419	1,623,628
Total Current Assets	269,982	472,815	964,244	1,827,930	2,799,228	4,252,691
Property, Plant, & Equipment	$800,000	$800,000	$800,000	$800,000	$800,000	$800,000
Accumulated Depreciation	$80,000	$160,000	$240,000	$320,000	$400,000	$480,000
Net Fixed Assets	$720,000	$640,000	$560,000	$480,000	$400,000	$320,000
Total Assets	**$989,982**	**$1,112,815**	**$1,524,244**	**$2,307,930**	**$3,199,228**	**$4,572,691**
Liabilities						
Accounts Payable	$48,108	$144,323	$360,806	$721,613	$1,082,419	$1,623,628
Accrued Expenses	$4,846	$5,965	$7,614	$10,207	$14,547	$22,214
Accrued Taxes Payable	$0	$3,400	$26,226	$59,535	$78,092	$120,357
Total Liabilities	$52,954	$153,688	$394,647	$791,355	$1,175,057	$1,766,199
Stockholders' Equity	$1,018,000	$1,018,000	$1,018,000	$1,018,000	$1,018,000	$1,018,000
Retained Earnings	($80,972)	($58,873)	$111,597	$498,576	$1,006,171	$1,788,492
Total Liabilities & SE	**$989,982**	**$1,112,815**	**$1,524,244**	**$2,307,930**	**$3,199,228**	**$4,572,691**

Statement of Cash Flows	2001	2002	2003	2004	2005	2006
Beginning Cash	$200,000	$221,874	$328,492	$603,437	$1,106,318	$1,716,810
Net Income	($62,972)	$22,099	$170,470	$386,979	$507,595	$782,320
Change in Inventory	(48,108)	(96,215)	(216,484)	(360,806)	(360,806)	(541,209)
Depreciation Add-Back	$80,000	$80,000	$80,000	$80,000	$80,000	$80,000
Change in Accounts Payable	$48,108	$96,215	$216,484	$360,806	$360,806	$541,209
Change in Accrued Expenses	$4,846	$1,119	$1,649	$2,592	$4,340	$7,667
Change in Accrued Taxes Payable	$0	$3,400	$22,826	$33,309	$18,556	$42,265
Total Adjustments to Cash Balance	$21,874	$106,618	$274,945	$502,881	$610,492	$912,253
Ending Cash	**$221,874**	**$328,492**	**$603,437**	**$1,106,318**	**$1,716,810**	**$2,629,063**

Monthly Consolidated Pro-Forma Financial Statements, Year 2001

Income Statement	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Revenue	$7,020	$7,020	$7,020	$7,020	$7,020	$7,020	$7,020	$7,020	$7,020	$7,020	$7,020	$7,020	$84,240
Cost of Kits Sold	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Gross Profit	$7,020	$7,020	$7,020	$7,020	$7,020	$7,020	$7,020	$7,020	$7,020	$7,020	$7,020	$7,020	$84,240
CSEW Contracting Fee	$417	$417	$417	$417	$417	$417	$417	$417	$417	$417	$417	$417	$5,000
Administrative Expense	$3,667	$3,667	$3,667	$3,667	$3,667	$3,667	$3,667	$3,667	$3,667	$3,667	$3,667	$3,667	$44,000
Maintenance Expense	$250	$250	$250	$250	$250	$250	$250	$250	$250	$250	$250	$250	$3,000
Marketing Expense	$750	$0	$0	$750	$0	$0	$750	$0	$0	$750	$0	$0	$3,000
Insurance & Security Expense	$667	$667	$667	$667	$667	$667	$667	$667	$667	$667	$667	$667	$8,000
Total Operating Expenses	$5,750	$5,000	$5,000	$5,750	$5,000	$5,000	$5,750	$5,000	$5,000	$5,750	$5,000	$5,000	$63,000
Currency Exchange Loss	$351	$351	$351	$351	$351	$351	$351	$351	$351	$351	$351	$351	$4,212
Depreciation Expense	$6,667	$6,667	$6,667	$6,667	$6,667	$6,667	$6,667	$6,667	$6,667	$6,667	$6,667	$6,667	$80,000
Earnings Before Income Taxes	($5,748)	($4,998)	($4,998)	($5,748)	($4,998)	($4,998)	($5,748)	($4,998)	($4,998)	($5,748)	($4,998)	($4,998)	($62,972)
Income Tax Expense	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Income Tax Credit	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Net Income	**($5,748)**	**($4,998)**	**($4,998)**	**($5,748)**	**($4,998)**	**($4,998)**	**($5,748)**	**($4,998)**	**($4,998)**	**($5,748)**	**($4,998)**	**($4,998)**	**($62,972)**

Balance Sheet	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Assets												
Cash	$206,669	$207,588	$209,257	$210,926	$211,845	$213,514	$215,183	$216,102	$217,771	$219,440	$220,359	$222,028
Inventory	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$48,108
Total Current Assets	$206,669	$207,588	$209,257	$210,926	$211,845	$213,514	$215,183	$216,102	$217,771	$219,440	$220,359	$270,136
Property, Plant, & Equipment	$800,000	$800,000	$800,000	$800,000	$800,000	$800,000	$800,000	$800,000	$800,000	$800,000	$800,000	$800,000
Accumulated Depreciation	$6,667	$13,333	$20,000	$26,667	$33,333	$40,000	$46,667	$53,333	$60,000	$66,667	$73,333	$80,000
Net Fixed Assets	$793,333	$786,667	$780,000	$773,333	$766,667	$760,000	$753,333	$746,667	$740,000	$733,333	$726,667	$720,000
Total Assets	**$1,000,002**	**$994,255**	**$989,257**	**$984,259**	**$978,512**	**$973,514**	**$968,516**	**$962,769**	**$957,771**	**$952,773**	**$947,026**	**$990,136**
Liabilities												
Accounts Payable	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$48,108
Accrued Expenses	$5,750	$5,000	$5,000	$5,750	$5,000	$5,000	$5,750	$5,000	$5,000	$5,750	$5,000	$5,000
Accrued Taxes Payable	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Liabilities	$5,750	$5,000	$5,000	$5,750	$5,000	$5,000	$5,750	$5,000	$5,000	$5,750	$5,000	$53,108
Stockholders' Equity	$1,018,000	$1,018,000	$1,018,000	$1,018,000	$1,018,000	$1,018,000	$1,018,000	$1,018,000	$1,018,000	$1,018,000	$1,018,000	$1,018,000
Retained Earnings	($23,748)	($28,745)	($33,743)	($39,491)	($44,488)	($49,486)	($55,234)	($60,231)	($65,229)	($70,977)	($75,974)	($80,972)
Total Liabilities & SE	**$1,000,002**	**$994,255**	**$989,257**	**$984,259**	**$978,512**	**$973,514**	**$968,516**	**$962,769**	**$957,771**	**$952,773**	**$947,026**	**$990,136**

Cash Flows	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Beginning Cash	$200,000	$206,669	$207,588	$209,257	$210,926	$211,845	$213,514	$215,183	$216,102	$217,771	$219,440	$220,359
Net Income	($5,748)	($4,998)	($4,998)	($5,748)	($4,998)	($4,998)	($5,748)	($4,998)	($4,998)	($5,748)	($4,998)	($4,998)
Change in Inventory	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	($48,108)
Depreciation Add-Back	$6,667	$6,667	$6,667	$6,667	$6,667	$6,667	$6,667	$6,667	$6,667	$6,667	$6,667	$6,667
Change in Accounts Payable	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$48,108
Change in Accrued Expenses	$5,750	($750)	$0	$750	($750)	$0	$750	($750)	$0	$750	($750)	$0
Change in Acrd Taxes Payable	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Adjustments to Cash	$6,669	$919	$1,669	$1,669	$919	$1,669	$1,669	$919	$1,669	$1,669	$919	$1,669
Ending Cash	**$206,669**	**$207,588**	**$209,257**	**$210,926**	**$211,845**	**$213,514**	**$215,183**	**$216,102**	**$217,771**	**$219,440**	**$220,359**	**$222,028**

Monthly Consolidated Pro-Forma Financial Statements, Year 2002

Income Statement	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
Revenue	$21,060	$21,060	$21,060	$21,060	$21,060	$21,060	$21,060	$21,060	$21,060	$21,060	$21,060	$21,060	$252,720
Cost of Kits Sold	$48,108	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$48,108
Gross Profit	($27,048)	$21,060	$21,060	$21,060	$21,060	$21,060	$21,060	$21,060	$21,060	$21,060	$21,060	$21,060	$204,613
CSEW Contracting Fee	$833	$833	$833	$833	$833	$833	$833	$833	$833	$833	$833	$833	$10,000
Administrative Expense	$4,400	$4,400	$4,400	$4,400	$4,400	$4,400	$4,400	$4,400	$4,400	$4,400	$4,400	$4,400	$52,800
Maintenance Expense	$263	$263	$263	$263	$263	$263	$263	$263	$263	$263	$263	$263	$3,150
Marketing Expense	$900	$0	$0	$900	$0	$0	$900	$0	$0	$900	$0	$0	$3,600
Insurance & Security Expense	$667	$667	$667	$667	$667	$667	$667	$667	$667	$667	$667	$667	$8,000
Total Operating Expenses	$7,063	$6,163	$6,163	$7,063	$6,163	$6,163	$7,063	$6,163	$6,163	$7,063	$6,163	$6,163	$77,550
Currency Exchange Loss	$1,053	$1,053	$1,053	$1,053	$1,053	$1,053	$1,053	$1,053	$1,053	$1,053	$1,053	$1,053	$12,636
Depreciation Expense	$6,667	$6,667	$6,667	$6,667	$6,667	$6,667	$6,667	$6,667	$6,667	$6,667	$6,667	$6,667	$80,000
Earnings Before Income Taxes	($41,830)	$7,178	$7,178	$6,278	$7,178	$7,178	$6,278	$7,178	$7,178	$6,278	$7,178	$7,178	$34,427
Income Tax Expense	$0	$2,871	$2,871	$2,511	$2,871	$2,871	$2,511	$2,871	$2,871	$2,511	$2,871	$2,871	$30,502
Income Tax Credit	$16,732	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$16,732
Net Income	**($25,098)**	**$4,307**	**$4,307**	**$3,767**	**$4,307**	**$4,307**	**$3,767**	**$4,307**	**$4,307**	**$3,767**	**$4,307**	**$4,307**	**$20,656**

Balance Sheet	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Assets												
Cash	$205,659	$218,604	$232,448	$240,551	$253,495	$267,340	$272,931	$285,875	$299,720	$305,311	$318,255	$332,100
Inventory	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$144,323
Total Current Assets	$205,659	$218,604	$232,448	$240,551	$253,495	$267,340	$272,931	$285,875	$299,720	$305,311	$318,255	$476,422
Property, Plant, & Equipment	$800,000	$800,000	$800,000	$800,000	$800,000	$800,000	$800,000	$800,000	$800,000	$800,000	$800,000	$800,000
Accumulated Depreciation	$86,667	$93,333	$100,000	$106,667	$113,333	$120,000	$126,667	$133,333	$140,000	$146,667	$153,333	$160,000
Net Fixed Assets	$713,333	$706,667	$700,000	$693,333	$686,667	$680,000	$673,333	$666,667	$660,000	$653,333	$646,667	$640,000
Total Assets	**$918,993**	**$925,271**	**$932,448**	**$933,884**	**$940,162**	**$947,340**	**$946,264**	**$952,542**	**$959,720**	**$958,644**	**$964,922**	**$1,116,422**
Liabilities												
Accounts Payable	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$144,323
Accrued Expenses	$7,063	$6,163	$6,163	$7,063	$6,163	$6,163	$7,063	$6,163	$6,163	$7,063	$6,163	$6,163
Accrued Taxes Payable	$0	$2,871	$5,742	$2,511	$5,382	$8,253	$2,511	$5,382	$8,253	$2,511	$5,382	$8,253
Total Liabilities	$7,063	$9,034	$11,905	$9,574	$11,545	$14,416	$9,574	$11,545	$14,416	$9,574	$11,545	$158,738
Stockholders' Equity	$1,018,000	$1,018,000	$1,018,000	$1,018,000	$1,018,000	$1,018,000	$1,018,000	$1,018,000	$1,018,000	$1,018,000	$1,018,000	$1,018,000
Retained Earnings	($106,070)	($101,763)	($97,456)	($93,690)	($89,383)	($85,076)	($81,310)	($77,003)	($72,696)	($68,930)	($64,623)	($60,316)
Total Liabilities & SE	**$918,993**	**$925,271**	**$932,448**	**$933,884**	**$940,162**	**$947,340**	**$946,264**	**$952,542**	**$959,720**	**$958,644**	**$964,922**	**$1,116,422**

Cash Flows	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Beginning Cash	$222,028	$205,659	$218,604	$232,448	$240,551	$253,495	$267,340	$272,931	$285,875	$299,720	$305,311	$318,255
Net Income	($25,098)	$4,307	$4,307	$3,767	$4,307	$4,307	$3,767	$4,307	$4,307	$3,767	$4,307	$4,307
Change in Inventory	$48,108	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	($144,323)
Depreciation Add-Back	$6,667	$6,667	$6,667	$6,667	$6,667	$6,667	$6,667	$6,667	$6,667	$6,667	$6,667	$6,667
Change in Accounts Payable	($48,108)	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$144,323
Change in Accrued Expenses	$2,063	($900)	$0	$900	($900)	$0	$900	($900)	$0	$900	($900)	$0
Change in Accrued Taxes Payable	$0	$2,871	$2,871	($3,231)	$2,871	$2,871	($5,742)	$2,871	$2,871	($5,742)	$2,871	$2,871
Total Adjustments to Cash Balance	($16,369)	$12,945	$13,845	$8,102	$12,945	$13,845	$5,591	$12,945	$13,845	$5,591	$12,945	$13,845
Ending Cash	**$205,659**	**$218,604**	**$232,448**	**$240,551**	**$253,495**	**$267,340**	**$272,931**	**$285,875**	**$299,720**	**$305,311**	**$318,255**	**$332,100**