



Republic of Kenya Energy and Communications Plan

This document is a recommended business plan for the development of the Republic of Kenya Energy and Communication Plan. The challenges that the Republic of Kenya faces today are the development and implementation of next generation of energy production, energy management and communications services

The primary purpose is to begin to establish the guidelines for the development of the policies, procedures and practices to ensure environmentally safe and economically practical operation of this new energy and communications services. Gathering the necessary information to complete the development of the strategic plan that will deliver the goals is essential to providing the Republic of Kenya a comprehensive project plan. This project plan should include a step by step implementation strategy.

It is understood that building of these new energy and communication system is the essential component that provides the basis for the continued development of the Republic of Kenya.

Understanding the current and future electrical power and communication requirements will be essential for the design and construction of the most efficient and productive energy and communication services. We would also recommend that the process of evaluating includes gasification/biomass, solar, wind, coal and other technologies that will provide the necessary power today and into the future.

The evaluating of the infrastructure needs to deliver electricity, phone services, highest speed internet, cable/satellite and other connivances would provide economies of scale in

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the implementation of these necessary services. A complete infrastructure analysis needs to include fiber backbone for the internet, web hosting, ISP, telecommunications, cell phones, data connectivity provided to all homes, business, schools and service providers. We will be reviewing the newest technologies in high speed information transmission. These include our equity partner that has developed a laser/microwave device that provides light speeds through the airways thus reducing the cost of certain pieces of the infrastructure.

Each of the above items will require a detailed project plan that interacts with all other projects plans to ensure the maximum benefit at minimum expense while ensuring the highest quality.

Cillium and our partners having reviewed the Republic of Kenyan Governments official web sites; the economic development potential and would like to put forward the following recommendations that we believe fit perfectly into the Republic of Kenyan goals for the future.

Our recommendations

The primary challenge to achieve the goal of each region is the evaluations and enhancements of the current infrastructure through out the region. This infrastructure includes but is not limited to:

- Electrical production and delivery
- Communications
- Water purification
- Waste Management

The most critical element of the needed infrastructure will be power production and delivery. From an electricity perspective, the best way to proceed is to determine first, what is the current production cost to produce power at the KWh level. Where are these power production solutions located in relationship to the consumer? Where is the projected growth in demand? Can the current facilities be enhanced for efficiencies or alternatives production capabilities?

The information requested allows us to look at the total picture and determine the most efficient locations to upgrade, build new and place alternative power production services. The distance the power travels determines the loss or degradation of output compared to the local demand. While it may appear cheaper to build the power production facilities near the ports to reduce deliver of fuel cost, it may greatly increase the amount of power needed to produce to offset the degradation/loss that will occur. The cost of land to build

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must be factored into the financial equations. We would also want to look at the economic impact on communities, it may be better to build where the jobs are most needed thus creating a better financial gain.

As this data is being collected, we will be providing feedback as to our findings. The information will be plotted on a series of interactive maps to show where the consumption is, the projected growth will be and the best locations for the new power production based on the weighted scale we jointly developed. These maps, with the associated data, will provide the building blocks for a comprehensive national energy plans that is scalable, efficient, safe, environmentally focused and cost effective.

Additionally, we will make recommendations on how to optimize the current energy plan, improve the current environmental impact, reduce cost and position the country for their future energy needs. These new technologies will provide new employment opportunities while reducing the end users cost of electricity. By utilizing renewable energy sources (solar, wind, wave and biomass/gasification) to power our system can provide clean renewable scalable energy to assist the rural areas which have the greatest need.

New age technologies like the sphere shaped solar/wind system eliminates the need for aiming the solar panels. The wind spins the globe & the solar design captures the light regardless of the angle of the sun and the spinning of the globe.



Communications Systems – The communications system will provide Republic of Kenya with the newest of high speed information flow technologies. First we should install our backbone network consisting of the best in fiber optics, microwave/laser technology, wireless technologies and the newest end-user equipment. We can also develop web hosting, social media, education services and business networking for local business and enticing offshore companies to invest in Republic of Kenya.

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Other consideration - The production of purified water is essential to the health and well being of our collective partners and employees that will be on site. We are already reviewing the types of water purification. Reverse osmosis water purification systems, new water sources or importing bottled water will help to begin to improve the general health.

We have already begun the process of evaluating gasification/biomass (we will be producing more trash that can be used for fuel and eliminate the need for land fills), solar, wind, coal and other technologies that will provide the necessary power today and into the future.

The goal is to establish a series of interconnected services that assist each other in their financial goals while providing maximum social and economic benefit through sound business practices, job training, customer satisfaction; leading edge thought and technologies. Other things that must be considered are delivery systems of the products, staging of equipment, and training of the local support; supplies necessary for the processes, back office support, payroll, insurances, medical support and all other services for successful implementation of these projects.

The right of ways we will have would allow us to put in a fiber backbone to lease to communications providers. The gasification systems will also generate revenues both from the removal of garbage and the selling of the excess electrical capacity back to the grid. A Safe and clean transportation alternative will be provided for most cities. Those areas where the biomass/gasification systems are located will benefit from the reduction of landfill waste in the cities.

Job creation will be explosive. Local citizens must be trained for the skilled labor positions, the back office support and leadership roles and responsibilities. There will be a number of jobs created for the installation of the upgrades the receiving and implementation of the electrical equipment (energy management, energy production and energy distribution) and most importantly once the volume requires, we will then develop manufacturing facilities to build the equipment we will be utilizing for energy, communications, water purification and other equipment. Once we have developed the template for Republic of Kenya, then we can begin to export our ideas and equipment manufactured in Republic of Kenya to the neighboring countries in the SADC.

Projected timetable after funding acquired:

Year one:

- we will identify and secure all the land purchases/right of ways for our stations and routes
- Land clearing should begin in month 3 of our project
- Also in year one, we will develop all engineering, architectural, insurances, environmental requirements, permits, and legal process, procedures and practices

- Land acquisition will be completed within the first two years
- Year two:
- General construction will begin on the biomass/gasification systems with a completion timeline for the end of year five
 - The beginning construction of the routes will begin by building the foundations and moving to the tier structures
 - Biomass/gasification plants purchased & installation to be completed by end of year 4
 - The solar systems deployment will begin
 - Both the solar and gasification systems will begin generating revenues as they are completed

Cillium, Inc.
Republic of Kenya
Energy Production Plan

Higher energy prices, global warning and other environmental concerns are changing the way people live and do business. Around the world, customers are increasingly showing their preference for companies who practice social and environmental responsibility, and business owners are always on the look out for strategies which give them a competitive advantage over the competition. Many have adopted a "green solution" into their corporate agenda.

CILLIUM specializes in development and deployment in alternative green energy in wind, solar, wave and biomass technologies. The unique design of our systems allow for the deployment of saleable electrical production systems that allow governments and companies to implement what they need to meet their needs and the flexibility to add additional systems when they are needed as the demands changes.

All systems will be fully tested for safety and reliability and will have an average service life of up to 15 years. The goal is to provide a solution that can pay for itself over time by reducing the current cost of electricity of is a better investment than conventional electricity production systems on new installations.

The advantage we have is that our energy management systems provides us the catalyst to due the data gathering necessary As this data is being collected, the information will be plotted on a series of interactive maps to show where the consumption is, the projected growth will be and the best locations for the new technologies. These maps, with the associated data, will provide The Republic of Kenya with the building blocks for a comprehensive national energy plan that is scalable, efficient, safe, environmentally focused and cost effective.

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The research and development between GHB, Cyber Park Partners and the local Colleges and Universities in the field of energy management and new energy production systems will deliver new products and service in the areas of wind, solar and water flow technologies. These technologies will provide the ability to meet the growing energy demands while using non-polluting fossil fuels. These new technologies will be the leaders in the multi-trillion dollar world energy industries. The overall impact will be more cost effective energy production through cleaner energy production processes.

The technologies we are already developing are:

Solar/Wind – Our device will be designed to utilize both solar and wind on the same device. This design is spherical in shape allowing for higher efficiency regardless of the angle of the light source while capturing the movement of wind simultaneously with solar. This allows both technologies to share certain cost (infrastructure, maintenance, footprint, land acquisition, right of way) while reducing cost and providing much greater scalability.

Wave – Our devices use the natural movement of the ocean waves to generate energy. While there are several companies that are experimenting with this type of technology, ours uses some of the same designs that our solar/wind device utilizes. This makes our equipment more efficient, cost effective and scalable. The Republic of Kenya provides a perfect environment for our development and deployment of these technologies.

Biomass/Gasification systems can be utilized in conjunction with the local governments to reduce land fill requirements. The payment for managing the waste and revenue generated by the sale of electricity makes this technology financially viable and the addition of our wind/solar technologies on the same facility greatly increases the profitability of each location.

Energy Management and Production Systems

Cillium

CILLIUM specializes in providing sustainable energy management products for industrial mechanical devices and commercial electrical systems and energy production systems. Our energy management products are guaranteed to reduce electrical consumption by at least 20% on all circuits we manage. Our energy production systems utilize only clean green energy designs that take advantage of wind, solar and wave technologies. All systems are fully tested for safety and reliability and have an average service life of up to 15 years. Our lease/purchase plans are designed for client flexibility allowing them to select the financial arrangements that best meet their budgetary needs.

CILLIUM would like to invite Republic of Kenya to be our strategic partner.

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Our systems will reduce consumption on existing systems while positioning Republic of Kenya to be a leader in clean energy production. These technologies will provide:

- Millions of dollars in annual savings for the Corporations and Government facilities located in the Republic of Kenya.
- New job creation to review and implement these systems would result in hundreds of new, high skilled jobs.
- Additionally this creates the need for new employees in project management and other support functions.
- Development for staging and assembly facilities here in Republic of Kenya that would support that area of the world.

We would like to consider Republic of Kenya as a possible location for a Regional Corporate Headquarters. There are many positive impacts for the citizens of Republic of Kenya. First, is the reduced cost of government provides a more efficient use of tax dollars. A savings of up to 20% of the Country's electric bills could divert budget dollars to other projects.

Secondly, business would also have the same cost management benefit which could be used to maintain staff, increase market share, pay down debt, and reduce prices to their consumers or whatever is in the best interest of the city. Third, the reduction of electrical demand will have a positive impact on the environment, less need for fossil fuels used in the production of electricity.

A training center will be established to educate skilled labor in the proper implementation of our systems both in Republic of Kenya and surrounding countries. This will require the hiring and training of the instructors, managers and implementation employees.

There can be a collaborative development of energy management curriculums offered through the local Colleges and Universities in the Republic of Kenya area. The courses will focus on project management, design, implementation, sales, tracking and many other aspects of the energy management and consulting fields. The energy production and energy management fields are becoming the most needed and fastest growing throughout the world. Most experts agree that energy is a multi-trillion dollar industry.

The research and development between GHBGT and the local Colleges and Universities in the field of energy management and new energy production systems will deliver new products and service in the areas of wind, solar and water flow technologies. These technologies will provide the ability to meet the growing energy demands while using non-polluting fossil fuels. These new technologies will be the leaders in the multi-

trillion dollar world energy industries. The overall impact will be more cost effective energy production through cleaner energy production processes.

All these projects will provide greater energy management, cost savings, environmental impacts and the creation of thousands new jobs in new fields that will encompass all levels of career opportunities. The following are the areas that will be positively impacted by *new job insourcing* in the Greater Sri Lanka area:

Job Creation Hundreds of new jobs in Republic of Kenya for assembly, distribution, support functions and installation.

Hundreds of new jobs are created in receiving, consulting and management in the energy management field.

Higher Education will benefit from research and development in the on going energy systems, development of new systems in the smaller user fields (home), the development of new electricity production using water flow and wind.

Cost Containment Better utilization of power consumption and more efficient energy production will be the key to managing the cost of energy.

Environment The reduction of electrical usage and the deployment of clean green energy production will reduce the need for fossil fuels. This also reduces the need for foreign energy.

Political Job creation, tax revenue, reduced energy cost and new products.