



# FUNDING PROPOSAL

## Product: VTT Bio Fuel Stoves

**Purpose:** To provide an affordable, safe, and environmentally friendly cooking solution for households in Sub-Saharan Africa.

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# Executive Summary

**VTT Gel Fuels** is dedicated to providing sustainable, clean, and affordable cooking solutions to households in Sub-Saharan Africa. We propose the introduction of biofuel stoves, which offer numerous health, environmental, and economic benefits compared to traditional cooking methods. We seek funding to support the production, distribution, and promotion of these stoves, aiming to improve the quality of life for millions while fostering a greener environment.

In Southern Africa and Globally, the use of biomass fuels has reached unsustainable levels. It is estimated that three billion people worldwide still use traditional cooking methods that rely on biomass fuels.

This reliance on solid fuels is more prevalent in rural areas, where access to modern energy sources like electricity and liquefied petroleum gas (LPG) is limited. The use of solid fuels is associated with significant health risks due to indoor air pollution and contributes to environmental degradation.

With the growing need for sustainable energy solutions, our company, **VTT Gel Fuels**, aims to provide eco-friendly and cost-effective biofuel stoves to households and small businesses in developing regions. These stoves will use our range of gel fuels, solid fuel tablets, solid Chafers heating fuels and pellets, reducing dependency on traditional fossil fuels and promoting environmental sustainability.

We provide a full solution as the biofuels are manufactured by us, **VTT Gel Fuels**.

# **BUSINESS OVERVIEW**

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At VTT bio Fuels, we are committed to revolutionizing the way communities in Sub-Saharan Africa access and use energy. Our mission is to provide sustainable, affordable, and efficient biofuels and stoves that empower households and businesses while protecting our environment.

Our innovative stoves are engineered to maximize the efficiency of our biofuels. They are easy to use, highly durable, and significantly reduce fuel consumption compared to traditional cooking methods. Our stoves help families save money, time, and resources while promoting a cleaner environment.

## **OUR MISSION**

To provide clean, sustainable, and affordable cooking solutions to households in Sub-Saharan Africa and the world at large. By producing high-quality bio fuel and innovative stoves, we aim to improve public health, protect the environment, and enhance the quality of life for millions. We are committed to driving positive change through continuous innovation, community engagement, and partnerships with local stakeholders.

## **OUR VISION**

To be the leading provider of clean cooking solutions in Sub-Saharan Africa, recognized for our commitment to sustainability, social impact, and technological innovation. We aspire to create a future where every household has access to safe and efficient cooking methods, contributing to healthier communities and a greener planet. Through our efforts, we envision a world where energy poverty is eradicated, and everyone can enjoy the benefits of modern energy solutions.

# PRODUCT OFFERINGS



## VTT BIO STOVE

Our biofuel stoves are designed to be efficient, durable, and easy to use.

Key features include:

- Fuel Efficiency: Consumes less fuel, reducing costs for users.
- Health Benefits: Produces no smoke, lowering respiratory risks.
- Environmental Impact: Uses renewable biofuels, reducing deforestation and carbon footprint.
- Economic Advantages: Supports local biofuel production, creating jobs and stimulating the economy.

## OUR FUELS



### Chafing Gel Fuel

Our Chafing Gel Fuel is a premium quality, easy-to-use, and highly efficient fuel solution designed for a variety of heating and warming applications. This product is ideal for catering events, buffets, outdoor activities, and emergency situations, providing a reliable source of heat.

### Solid Fuel Tablets



Our Solid Fuel is a highly reliable and convenient fuel source designed for a variety of heating and cooking applications. This product is perfect for outdoor adventures, emergency preparedness, and portable cooking solutions, providing a consistent and easy-to-use source of heat.



### Solid Fuel

Our advanced solid fuel solution designed to deliver clean, efficient, and sustainable energy.

# PRODUCT OFFERINGS

## Gel & Solid Fuel Tablets Stoves

Designed for efficiency and style, this stove is perfect for those who appreciate the cozy ambiance of a real fire. These are also suitable for the military and camping enthusiasts





# OVERVIEW OF BIO FUEL STOVE TECHNOLOGY AND ITS BENEFITS

In Sub-Saharan Africa, a significant portion of the population relies on biomass (wood, charcoal, and animal dung) for cooking. This practice poses severe health risks due to indoor air pollution, contributes to deforestation, and has negative economic implications. Traditional cooking methods are inefficient and time-consuming, particularly affecting women and children who spend hours collecting firewood.

Bio fuel stoves provide a clean, efficient, and safe alternative to traditional cooking methods. bio fuel is made from renewable resources and burns cleanly, reducing indoor air pollution and its associated health risks. These stoves are easy to use, cost-effective, and environmentally friendly, offering a sustainable solution for households.

## KEY COMPONENTS OF BIO FUEL STOVES:

- **Fuel Gel:** The gel is a thickened form of ethanol that burns cleanly, producing minimal smoke and no harmful emissions such as carbon monoxide or particulate matter.
- **Burner:** Designed to efficiently burn the biofuel, the burner typically includes a wick or a catalytic element to ensure complete combustion.
- **Stove Body:** Made from heat-resistant materials, the stove body houses the burner and supports cooking pots and pans.
- **Regulator:** The models feature a fuel regulator to control the flame intensity, providing better heat management for cooking.

## HOW IT WORKS:

- The bio fuel is poured into the burner.
- Ignition is achieved using a match or lighter.
- The fuel burns steadily, producing a consistent and controllable flame.
- Once cooking is completed, the flame can be easily extinguished by closing the burner or using a snuffer.

## **BENEFITS OF BIO FUEL STOVES**

### **Health Benefits:**

- **Reduced Indoor Air Pollution:** Biofuel stoves produce minimal smoke and no harmful emissions, significantly reducing the risk of respiratory illnesses and other health issues associated with traditional biomass fuels.
- **Improved Safety:** Biofuel is less prone to spills and fires compared to liquid fuels, reducing the risk of accidental burns and household fires.

### **Environmental Benefits:**

- **Sustainable Fuel Source:** bio fuel is made from renewable resources, reducing dependence on deforestation and mitigating environmental degradation.
- **Lower Emissions:** The clean-burning nature of biofuel results in lower greenhouse gas emissions, contributing to climate change mitigation.

### **Economic Benefits:**

- **Cost-Effective:** Biofuel stoves are often more efficient than traditional cooking methods, requiring less fuel for the same amount of cooking, which can result in cost savings for households.
- **Job Creation:** The production, distribution, and sale of biofuel and stoves can create employment opportunities within local communities.

### **Social Benefits:**

- **Time Savings:** Using biofuel stoves can reduce the time spent on collecting firewood, allowing individuals, particularly women and children, to engage in other productive activities such as education and income-generating work.
- **Empowerment:** Access to modern cooking technology can improve the quality of life and empower communities by providing a reliable and convenient cooking solution.

### **User Experience:**

- **Ease of Use:** Biofuel stoves are simple to operate, with straightforward ignition and flame control mechanisms.
- **Portability:** Many bio fuel stove models are lightweight and portable, making them ideal for both indoor and outdoor use





## VTT BIO STOVE KEY FEATURES

- ☑ High energy density and efficiency
- ☑ Low emissions and reduced carbon footprint
- ☑ Safe and easy to handle and store
- ☑ Consistent and reliable performance
- ☑ Biodegradable and environmentally friendly

# MARKET ANALYSIS

## MARKET NEED

The potential market for biofuel stoves in Sub-Saharan Africa is vast. With over 600 million people lacking access to clean cooking solutions, there is a substantial demand for affordable and efficient cooking technologies. The target market includes low to middle-income households, rural and peri-urban communities, and institutions such as schools and hospitals.

## TARGET MARKET

- **Population:** Over 1 billion people in Sub-Saharan Africa, with a significant portion living in rural and low-income urban areas.
- **Current Cooking Methods:** Predominantly wood, charcoal, and kerosene, which pose health risks and environmental challenges.

## PAIN POINTS

- **Health Hazards:** Indoor air pollution from traditional stoves causes respiratory diseases.
- **Environmental Impact:** Deforestation and carbon emissions from wood and charcoal use.
- **Economic Burden:** High cost of traditional fuels.

## MARKET POTENTIAL

- Growing awareness of health and environmental issues.
- Government and NGO initiatives promoting clean energy solutions.
- Increasing affordability of biofuels.

# TARGET MARKETS:



## Residential

Households seeking efficient and clean cooking and heating solutions.



## Commercial

Restaurants, hotels, Supermarkets, and institutions requiring reliable and eco-friendly fuel.



## Industrial

Factories and plants looking for sustainable fuel options for operations.



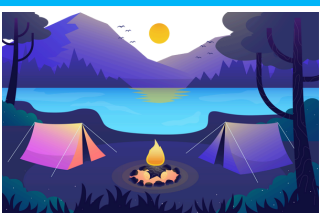
## Emergency Services

Portable and reliable fuel for disaster relief and remote areas.



## Rural and Semi-Urban Areas

Where biomass is commonly used for cooking and heating.



## Outdoor Enthusiasts

For camping markets

# **BUSINESS MODEL**

## **Revenue Streams**

- Direct Sales: Stoves sold through local distributors and retailers.
- Subscription Model: Monthly subscription for fuel supply and stove maintenance.
- Partnerships: Collaborations with NGOs and government programs for bulk purchases.

## **Cost Structure**

- Manufacturing Costs: Production of stoves and fuel.
- Distribution Costs: Logistics for delivering stoves and fuel.
- Marketing Costs: Awareness campaigns and promotions.

# **MARKETING STRATEGY**

Our marketing strategy involves segmenting the market based on geographic regions, income levels, and cooking habits. We will position our stoves as a cost-effective and healthier alternative to traditional methods. Our marketing plan includes community demonstrations, partnerships with local NGOs, and targeted advertising campaigns.

**Awareness  
Campaign**

**Distribution  
Channels**

**Pricing  
Strategy**

## **Awareness Campaigns:**

- Collaborate with local communities and influencers to promote benefits.
- Educational programs highlighting health and economic advantages.

## **Distribution Channels:**

- Partnerships with local retailers and community organizations.
- Mobile sales units to reach remote areas.

## **Pricing Strategy:**

- Competitive pricing to ensure affordability.
- Flexible payment options, including installment plans.

# **FINANCIAL PROJECTIONS**

We are seeking R7 million in funding to cover production, distribution, and marketing expenses. Our revenue model is based on direct sales and partnerships with local distributors. We project reaching a break-even point within 2 years and achieving profitability shortly thereafter.

## **Funding Requirements:**

- Initial investment: R7 million for manufacturing, distribution, and marketing.
- Use of funds:
  - 50% for production
  - 30% for distribution
  - 20% for marketing and operations.

# IMPACT AND SUSTAINABILITY

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## Social Impact:

- Improved health outcomes for millions of households.
- Economic empowerment through job creation and cost savings.

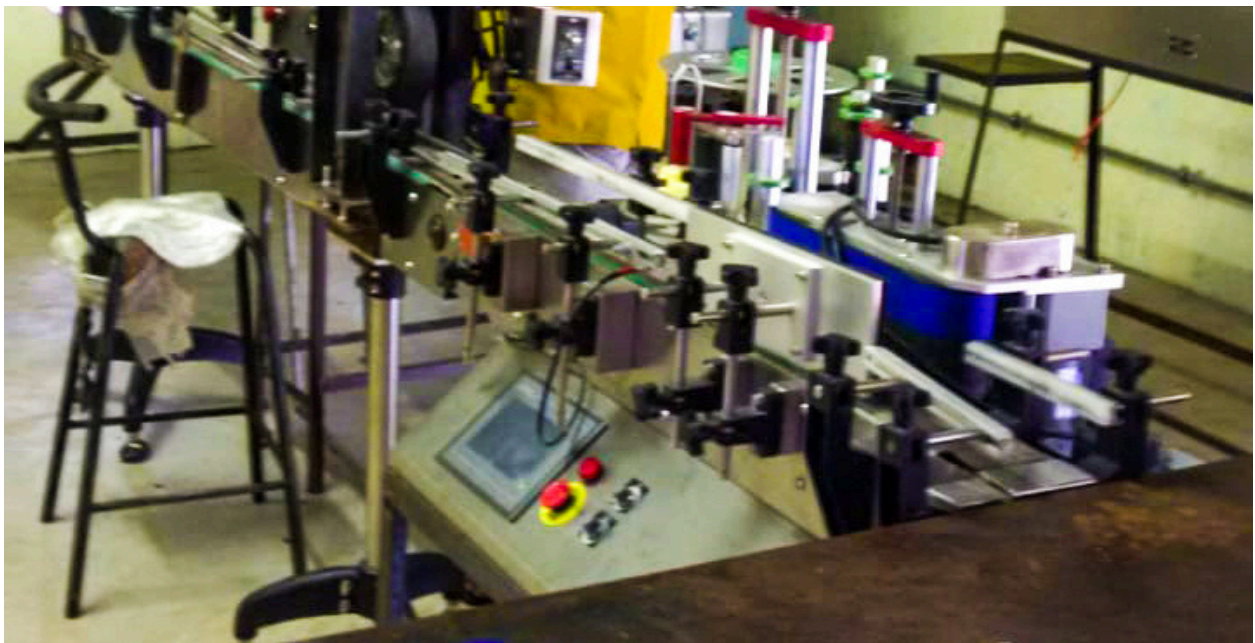
## Environmental Impact:

- Reduction in deforestation and carbon emissions.
- Promotion of renewable energy sources.

## Sustainability Plan:

- Continuous product innovation to enhance efficiency and affordability.
  - Partnerships with local and international organizations to ensure long-term growth.
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## Our Bio Fuel Manufacturing Facility

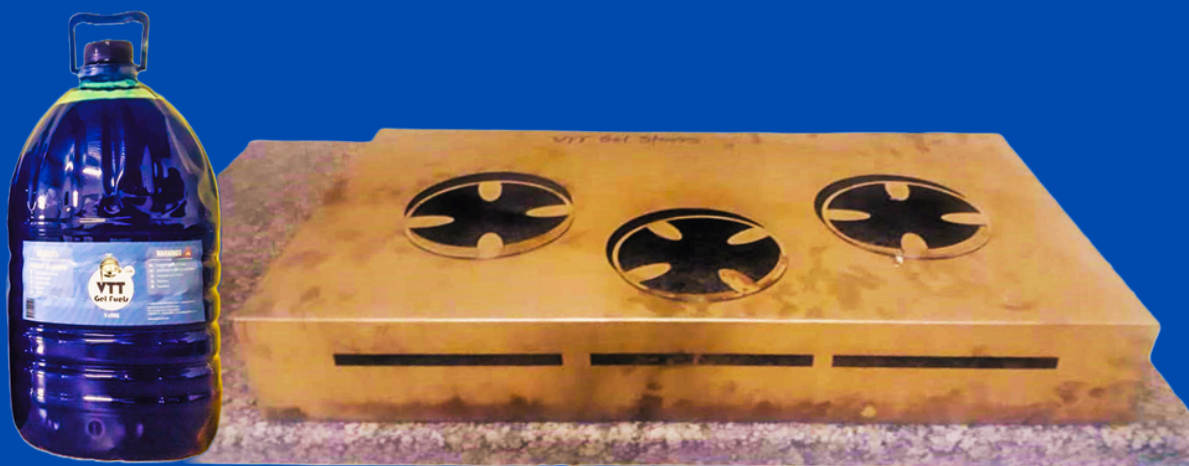




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