POWERSTOVE

NIGERIA

PRESENCE: Ghana, Nigeria.

Powerstove develops affordable and sustainable energy solutions to meet the energy demand from households in Sub-Saharan Africa. The Powerstove clean cookstove combines clean energy, IoT and mobile phone technology.

Powerstove is looking for:
• Investments (USD 500,000 in equity and USD 650,000 in debt) to equip the new factory, increase the workforce and scale.
• Partnerships with UN agencies and NGOs and with public entities to increase access to Sub-Saharan African markets.

CHALLENGE

There are approximately 83 million people living in extreme poverty in Nigeria with acute food insecurity, according to the National Bureau of Statistics. They spend over 25% of their income on fuels like charcoal, firewood, candles, kerosene and paraffin for cooking and lighting. Many health problems come from the use of traditional biomass stoves: every year, 100,000 Nigerians, mostly mothers and their children, die from illnesses attributable to household air pollution. The use of firewood for cooking also generates significant deforestation.

SOLUTION

Powerstove produces a smokeless cookstove that uses 70% less cooking fuel to cook foods 5 times faster than traditional stoves, and self-generates electricity. It uses Internet of Things (IoT) and mobile phone technology to bring its built-in self-powered IoT System allows beneficiaries to receive remittance of carbon credits based on Powerstove usage up to USD120 per annum directly into their mobile money account. Furthermore, this has led to increase in cookstove usage among families, which are now able to save money from alternative inefficient and costly cooking fuel, saving up to additional USD300 per annum. The system also produces wood pellets from sawdust that costs 80% cheaper than charcoal, firewood and kerosene.

“The venture provides a comprehensive solution, combining key building blocks that address the issue of clean affordable cooking by incorporating carbon benefits.”
– Loic de Fontaubert, Investment Director, ENGIE Rassembleurs d’Energies

Powerstove also offers Solar Home Systems (SHS) which deliver both clean cooking stove and a home lighting technology for the price of one. The business model also allows users to pay instalments namely through ‘Pay As You Cook’, ‘Rent-to-Own’ and ‘Savings-to-Own’ consumer finance schemes. With Powerstove, users can pay for one product with dual benefits (cooking and electricity), instead of buying SHS and clean cookstove separately.

IMPACT

Powerstove eliminates toxic emissions and improves the quality of household air, while at the same time providing clean accessible energy to the poor. Since 2018, Powertove impact achieved:
• 5,000 stoves sold
• 85 kiloton CO₂ emissions prevented
• USD 700,000+ fuel costs saved
• 200,000+ trees saved, 100,000+ jobs created, and 91,000 + working weeks saved,
• 36,000+ livelihoods improved,
• 22,000 households received in total USD9,240,000 carbon credits per annum, helping them to improve family nutrition, education and to afford basic healthcare.

“...”
WOMEN EMPOWERMENT

50% of women in C-suite positions

The technology impacts positively women and girls who traditionally are in charge of cooking and collecting wood. Powerstove works with local female vendors to achieve grassroots product acceptability, door-to-door distribution, assembling and repairs. The company hires in priority women to champion the ‘Light Every Home’ campaign at the community level and to manage the company’s own mobile kiosk network which provides employment to 350 women. They are trained on marketing, bookkeeping and digital literacy on how to use smartphone to manage all business operations and inventories in the kiosk. In total, women represent at least 50% of the company’s workforce.

SCALABILITY

An estimated 700 million Africans (82%) cook primarily with solid fuels, 7% with kerosene, 5% with Liquifed Petroleum Gas, and 6% with electricity. In Sub Saharan Africa alone, households spent USD40 billion in cooking fuels in 2018, and USD600–700 million in all types of stoves. By 2025, fuel spending is set to more than double to reach USD87 billion. Fuel prices are rising fast across the region, stimulating demand for fuel-saving solutions. Users aged between 20-60, who live off-grid, buy cooking fuels daily and live-in large families represent the company’s target market.

Powerstove plans to scale by fully equipping a new factory to produce at peak capacity of 25,000 units of stoves monthly, increasing the workforce and expanding its markets to Lagos and Kano in the short-term and Uganda and East Africa in the medium-term. It is also planning to access foreign markets leveraging new investments to build economies of scale and establish local manufactures.

FINANCIALS

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<tr>
<th>Year</th>
<th>Annual Revenue (USD)</th>
<th>EBITDA (USD)</th>
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<tbody>
<tr>
<td>2020</td>
<td>430,000</td>
<td></td>
</tr>
<tr>
<td>2019</td>
<td>127,000</td>
<td>22,000</td>
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<tr>
<td>2018</td>
<td>8,800</td>
<td>6,000</td>
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INVESTMENTS

The venture has raised USD450,000 in multiple equity rounds from Tomi Davies, Amara Ann Onuigbo, GreenTec Capital Partners, and Jua Fund. It also received over USD150,000 in grants from different awards and challenges.

Powerstove is now looking to close a seed round with USD500,000 in equity and USD650,000 in debt. This funding will help the company to fully equip the new factory, increase the workforce with experience and committed staff, and expand the target markets.

PARTNERSHIPS

Powerstove collaborates with GreenTec Capital Partners with objective to growing company’s valuation, user base and create a clear sustainability plan. It further has a partnership with Topeak Mars Shanghai to link to quality Chinese suppliers, and improve R&D units through collaborations.

AWARDS

Digital Technologies

Powerstoves come with mobile-phone-based monitoring devices to enable widespread participation in a voluntary carbon market scheme. The embedded Internet of things (IoT) and Global System for Mobile (GSM) technology, that integrates blockchain, helps provide an end-to-end carbon trading platform that further lowers transaction costs for customers. To reward client’s efforts of shifting to clean cooking, Powerstove offers monetary carbon benefits in cryptocurrency directly paid into their mobile money account, helping local poor families to access lifesaving funds that can lift them out from poverty.

FOUNDER

Okey Esse is the Founder and CEO of Powerstove Energy. He has also founded five other successful companies, holds one patent, and raised over USD50 million for 101+ SMEs. Okey graduated with a Diploma in Physics and Electronics from the University of Jos, Plateau State, Nigeria.

MORE INFORMATION

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