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The Executive Vice Chairman/Chief Executive,
National Agency for Science and Engineering
Infrastructure (NASENI), Idu Industrial Area,
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Sir,

OUR BUSINESS PLAN

The GIM Engineering Tech. Limited is a registered company with cooperate Affairs Commission (CAC) comprising of team of Engineers, Technologist, Technician, Craft men and business expert, with the following objectives or what we do:

- Design of energy efficient systems and optimization
- Design of foundry energy efficient systems
- Metal casting, ferrous and non-ferrous metals
- Consultants on foundry engineering
- Manufacture of Agricultural and Industrial spare-parts
- Consultancy services/teaching and training with regard to renewable energy and climate change mitigation
- Renewable energy system simulation
- Energy auditing and system diagnostics
- Carbon footprint

INTRODUCTION

A crucible furnace is a mechanical device used for melting and casting metals that have a low melting point such as brass, bronze, and aluminum. They are one of the oldest types of melting ovens and among the most commonly used furnaces in the industry. Foundry technology is basic to economic development and self-reliance. In Nigeria however, little attention has been given to the development of the casting industry for too long. This is one of the reasons for our over dependence on imported spare parts and machine components such as machine tools, power plants, industrial machinery and equipment, automobile, agricultural and textile industry. UNIDO, (2022) shows how the National Demand of cast metal products in Nigeria steadily increased from 72, 000 tonnes to 292, 000 tonnes (1985) to 425,000 in (1990s) and 794, 000 tonnes by the turn of the century, required to meet industrial demand and at present only four foundries have managed to survive out of the sixty registered active ones as of 1995 to cater for this huge demand. This gap (over 70%) in casting products supply has only been met through importation over the years.

So many problems are associated with the old type open crucible furnaces used in the local foundries. The foundry men are exposed to heat and combustion products which are harmful to health, more than half of the heat escapes due to the open nature of the local furnace, these open crucible furnaces contribute to environmental problems due to high demand of wood for charcoal production and the process consumes large quantities of fuel (charcoal) due to its low combustion efficiency and high heat loss. Also the poor performance of the manufacturing sector in Nigeria is indicative of the low state of the foundry industry. The market value of the annual casting shipments is quite very low compared to that in the US and other developed nations (UNIDO, 2022). These myriad of problems therefore, necessitated the expansion in this regard.

OVERVIEW OF THE BUSINESS

It is focuses on products aluminium utensils such as pots, pans, plates, spoons, machine components, etc. Our target market are households, restaurants, hotels and market in Mubi, Adamawa State, Nigeria at large and neighbouring countries. Our mission is to provide quality, durable and affordably aluminium utensils and machine components.

Major Components of the Business

The major components of the business are as follows:

1. Production Raw Material

Aluminium scrap ingots (ferrous and non-ferrous metals) are the raw materials for the production of the utensils and machine components. These process involve production of the utensils and machines components through the process of casting. It involved the heating or melting of the aluminium scraps using the crucible furnace fired by waste engine oil, pouring it into a mould and after solidification, forming and imprint of the products. After the casting manufacturing and finishing operations are being conducted and finally ready for market. Quality control measures also are put in place to ascertain the quality of the products produced to compete well in the market. All these process are put in place without compromising standard.

2. Marketing

Our target customers are wholesalers and retailers, which comprises of the households, restaurants, hotels in Mubi, Adamawa State, Nigeria and neighbouring countries. Feasibility study was carried out and the result show that there is huge or the market potential of those product is high.

The products cost is lower compared to the available ones in the market because the whole casting or production process uses locally available materials in the design and development of the furnace, fuel used to fire the furnace is a waste engine oil, the foundry sand is being obtained locally with the binder which is gum Arabic and other equipment all are being produced using locally available material, as such makes the production cost cheaper, consequently the cost of the product also cheaper and affordable by a common man. The distribution channels of the finished products is being through market squares, shops and online.

3. Operations

At present, the GIM Engineering Tech Limited produces at least fifty (50) pieces of such products per day with one crucible furnace. Additional furnaces and equipment are required to meet up the demand in the market and for future expansion. The cost of equipment, machineries required and workshop expansion is shown in the detailed budget.

4. Financials

The break-down of financials with regard to start-up cost which includes equipment, raw materials, labour etc, projected revenue and profit margin is also shown in the detailed budget

5. Opportunities

The opportunities for the business is high due to the growing demand for aluminium utensils in Nigeria, there is also a great potentials for the export to neighbouring countries and finally there is also room for the diversification of product range e.g kitchen wares, cookware's etc.

Thank you.

Yours faithfully



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General Manager, GIM Engineering Tech.