



Building A Mini LPG Bottling Plant.

Submitted to Prospective Investor

By Ani Marcelinus C.

Ani Marcelinus C,
Lagos State,
Nigeria.

www.amcblastsolutions.com/lpgbusiness.pdf

13 November 2015

©Proprietary and Confidential





Budget for the project

Total Investment cost

=N= 91,700,000

Break Down:

Cost of buying land 4 Plot of Land

=N= 12,000,000

Cost of Building administrative block + Dispense Plant

=N= 9,000,000

Cost of Buying 1 LPG Truck @ 11,900,000 per truck – 20Tons

=N= 11,900,000

Cost of Buying storage tank for 20tons (Fairly Used) → 40 tons

=N= 22,800,000

Cost of piping + Filling Heads

=N= 18,000,000

E.I.A, F.E.E.D, and other D.P.R Approvals,

=N= 18,000,000



Total Money to be generated after investment

It a known fact that LPG Business is 85% Profit after purchase of goods (LPG). After removing operational expenses, Cost of product and other logistics, you are expected to get at least 45% take home for every product purchase.



1 Introduction

The project profile is on setting up of a Liquefied Petroleum Gas (LPG) Bottling plant for domestic use as cooking gas. LPG is a mixture of commercial butane and commercial propane having saturated and unsaturated hydrocarbons.

LPG is gaseous at normal atmospheric pressure, but may be condensed to the liquid state at normal temperature, by the application of moderate pressures. Although they are normally used as gases, they are stored and transported as liquids under pressure for convenience and ease of handling.

Liquid LPG evaporates to produce about 250 times volume of gas. Thus, a large quantity of energy can be packed, stored, transported and used in small containers. Most commonly, LPG cylinders are available in compact 3kg, 5kg, 10kg, 12.5kg(Most common), 15kg, 25kg, and 50kg.

MARKET

The Nigerian LPG scenario presents a gap between demand & supply. The major utility of LPG is a cooking gas. It is approximated that LPG is being used by around 55 % of the households in Nigeria.

In urban areas, LPG is the common fuel, used by around 50 % of the households as fuel for cooking.

The market penetration of LPG is 45 %. While the urban market penetration is 88 %, the rural penetration is only 19.6 %. It is estimated that around 204400 MT of LPG is required in major cities for domestic purposes alone. Lagos has around 3,000,000 customers for LPG in the domestic category.

DISTRIBUTION PROCESS

LPG is received in Bullet trucks and transferred to a storage tank that is fully piped to the dispensing stand (Platform).

PROJECT PARAMETERS •

Capacity

The installed capacity of the plant is 40 MT. It is assumed that on an average 192 cylinders of 12.5 kg can be stored, which translates into 30MT



- **Land:**

It is proposed that the project may be set up in 4 / 6 plots of land

- **Location:**

It advised it situated in a major city in a residential area .

- **Raw Material & Utilities:**

The major raw material for LPG Bottling Plant is LPG, Truck, Storage and maintaining safety standards.

- **Plant & Machinery**

- LPG Storage Tank
- Decanting Pumps & Transfer pumps
- LPG Compressor
- Pipes with structural steel support
- Ball Valve
- Decanting House
- Cylinder Valve Testing Unit
- Purging Gun
- Fire fighting system
- Water sprinkler systems

- **Requirement**

1. Police Report
2. Fire Planning Approval
3. Town Planning Permit
4. State Land and Physical Planning Permit
5. Department of Petroleum Resources License



You need the following documents to process both the State L&P and DPR permits:

1. Environmental Impact Assessment
2. Front End Engineering Design

You still need some more documents for the DPR license, which is the ultimate license needed to operate a gas plant.

- **Manpower**

The unit may require approximately 10 staff inclusive of managerial staff and production staff. There may be more but for mini plant, 10 will serve.

CONCLUSION

LPG addresses aspects like quality, costs, efficiency, and environment, heat controllability making it a suitable fuel choice for domestic and industrial applications. LPG also finds many other applications such as fuel for vehicles, refrigerant, chemical feed stock, in running turbines to produce electrical energy and in Centralized heating solutions for domestic and industrial applications.



Fig. 1. Sample of a Storage Tank. 40MT. (Please note: It could be elevated or based like this pix base on the size of the land and F.E.E.D)



Fig 2. Sample of Storage for small scale as seen in Fuel stations. This has the facility to dispense direct to bottles and cost of setting this is =N= **15,000,000**. Including little land space.

Disclaimer: The findings contained in this Project Profile are based on the initial information collated through primary and secondary research, which is indicative in nature. Reference herein to any specific commercial product, process, service by trade name, LPG Bottling Plant, trademark, manufacturer, or otherwise, does not constitute or imply its endorsement, recommendation, or favoring by or any entities thereof. Kindly make your own research or contact us for more recent and updated business circle.