

HUAER GASES LIMITED

# BUSINESS PLAN

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## INDUSTRIAL GAS MANUFACTURING PROJECT

Huaer Gases Ltd.

OCTOBER 2022

This is a proposal for a project for manufacturing of industrial gases namely oxygen and acetylene. The company looks forward to inject a foreign equity amounting to USD 500,000 into the project and employ 21 people, 18 of whom are local. The Tanzanian environment is a promising one for this business and the promoters of the company have decided to invest here. Beside the capital and skills inflows this project will be useful to the economy as it expects to pay all taxes and levies as per the statutes of the country.

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## INTRODUCTION

### Company Overview

HUAER GASES is a Limited Liability Company registered under the laws of the United Republic of Tanzania on 10<sup>th</sup> April 2009 and was granted Certificate of Incorporation No. 107521. Among its planned businesses is the project of manufacturing of industrial gases. This project is located at Vingunguti industrial area.

The company Huaer Gases Limited is a **foreign company** by 100%. It is owned by the following shareholders:-

SNo.	Names	Nationality	Shares Taken	Percentage
1	Wang Liwei	Chinese	510	51%
2	Chen Yinfu	Chinese	490	49%

The company's focus is in production of industrial gas for the Tanzanian market and in the future to produce it for other countries, especially the neighboring EAC member states. The company has experienced experts from outside the country. These will build capacity of local staff in the production of industrial gas.

### The Project

Industrial gases are the gaseous materials that are manufactured for use in industries. The principal gases supplied in gas cylinders in the market are nitrogen, oxygen, carbon dioxide, argon, hydrogen, helium and acetylene. There are also many other gases and mixtures available. The industry producing these gases is also known as industrial gas, which is seen as also encompassing the supply of equipment and technology to produce and use the gases.

This project of ours will be manufacturing two types of industrial gases namely **oxygen (O<sub>2</sub>)** and **acetylene (C<sub>2</sub>H<sub>2</sub>)**. Oxygen is the chemical element with the symbol O and atomic number 8. It is a member of the chalcogen group in the periodic table, a highly reactive nonmetal, and an oxidizing agent that readily forms oxides with most elements as well as with other compounds. Oxygen is Earth's most abundant element, and after hydrogen and helium, it is the third-most abundant element in the universe. At standard temperature and pressure, two atoms of the element bind to form dioxygen, a colorless and odorless diatomic gas with the formula O<sub>2</sub>. Diatomic oxygen gas currently constitutes 20.95% of the Earth's atmosphere, though this has changed considerably over long periods of time. Oxygen makes up almost half of the Earth's crust in the form of oxides.



Our oxygen plant is an industrial system designed to generate oxygen by using air as a feedstock and separating it from its other components by using pressure swing absorption and/or membrane separation techniques.

Acetylene (whose systematic name is ethyne) is a chemical compound with the formula  $C_2H_2$  and structure **H-C≡C-H**. It is a hydrocarbon and the simplest alkyne. This colorless gas is widely used as a fuel and a chemical building block. It is unstable in its pure form and thus is

usually handled as a solution. Pure acetylene is normally odorless, but commercial grades usually have a marked odor due to impurities such as divinyl sulfide and phosphine.

As an alkyne, acetylene is unsaturated because its two carbon atoms are bonded together in a triple bond. The carbon-carbon triple bond places all four atoms in the same straight line, with CCH bond angles of  $180^\circ$ .



## The Value Chain

Our project looks forward to produce both the two types of gases, and initially import gas cylinders which are the packaging materials. In the production of oxygen we will source it from the air and process it to pure oxygen for industrial purposes, including production for hospitals. We expect to produce around **2,500 cylinders** of oxygen which is about **50,000kg** per year.

In the production of acetylene gas we will buy natural gas from within Tanzania and process it in order to create our product. Our estimated annual production of the gas is **2,500 cylinders** which implies a total of **50,000kg**. The market for the two gases is local industries and local health facilities. With time we expect to supply to the other EAC countries namely the Burundi, the DRC etc.

## Planned Purchases

The project plans to import about **5,000 gas cylinders** and **2 machineries**. The gas cylinders are for oxygen gas (2,500 cylinders) and acetylene gas (2,500 cylinders). The two machineries are for production of the two gases.

## PROJECT FINANCIALS

This project will be financed by equity (100%). It is purely foreign equity. The total value of investment is planned to be **USD 500,000**. This item (Project Financials) covers **financial analysis** (sales projections, income projections and projected cash flow), and **project financing** (sources of funding and funding of items).

## Financial Projections

Basing on the financial analyses conducted by the company; in the respective first five years of operation will have sales amounting to USD 115,000; 118,000; 121,000; 130,000 and 128,000. With the respective production costs as shown under Sales Projections the gross profits for years 1 to 5 respectively will be USD 81,500; 84,500; 87,500; 96,500 and 94,500. Gross profit projects are positive and promising for this project.

Upon netting operating expenses, the projected income statement shows positive retained earnings as depicted under the respective sub-headings.

## Sales Projections

Industrial gas production is aimed for industries which are body corporate and not natural persons. These organizations are more predictable and have legal obligations to comply with agreements. As such the project is confident of sales and assurance of revenues. The project's sales for the first five years of operation are projected below:-

<b>YEARS</b>	<b>Y1</b>	<b>Y2</b>	<b>Y3</b>	<b>Y4</b>	<b>Y5</b>
Sales (USD)	115,000	118,000	121,000	130,000	128,000
Total Production Costs	33,500	33,500	33,500	33,500	33,500
<b>Gross Profit/ (Loss)</b>	<b>81,500</b>	<b>84,500</b>	<b>87,500</b>	<b>96,500</b>	<b>94,500</b>

### Income Projections

The projected operating expenses for the respective first five years are USD 47,159; 36,507; 36,567; 45,550 and 35,886. Upon netting these from off the gross profit the projected retained earnings for the respective years for the period Y1 to Y5 are USD 19,231; 26,876; 28,522; 28,532 and 32,824.

### Projected Operating Expenses

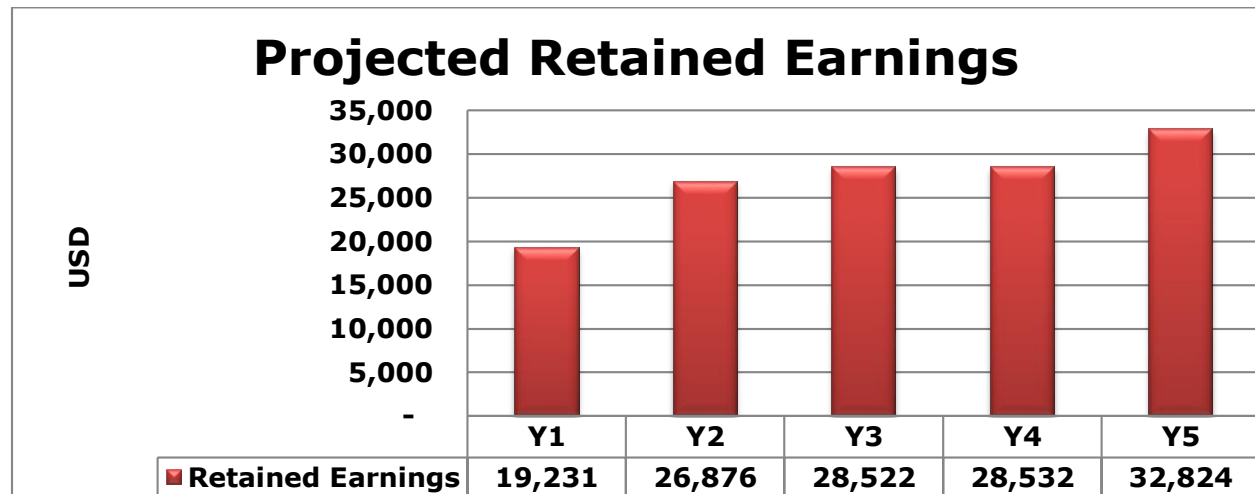
<b>YEARS</b>	<b>Y1</b>	<b>Y2</b>	<b>Y3</b>	<b>Y4</b>	<b>Y5</b>
Marketing Expenses	3,060	2,060	2,060	2,165	2,165
Bank Charges	50	50	50	53	53
Insurance	2,340	2,340	2,340	2,340	2,340
Office Expenses	2,608.70	2,597.40	2,597.40	2,591.79	2,588.44
Permits and Licenses	7,800	100	100	6,700	1,100
Vehicle Expenses	1,000	1,000	1,000	1,000	1,000
Professionals Fees	2,000	-	-	2,100	-
Provision for Bad Debts	2,300	2,360	2,420	2,600	2,560
Depreciations	20,000	20,000	20,000	20,000	18,080
Miscellaneous Expenses	6,000	6,000	6,000	6,000	6,000
<b>TOTAL OPERATING EXPENSES</b>	<b>47,159</b>	<b>36,507</b>	<b>36,567</b>	<b>45,550</b>	<b>35,886</b>

### Projected Income Statement

<b>Description</b>	<b>Y1</b>	<b>Y2</b>	<b>Y3</b>	<b>Y4</b>	<b>Y5</b>
Total Sales	115,000	118,000	121,000	130,000	128,000
Less: Cost of Sales	33,500	33,500	33,500	33,500	33,500
Gross Profit	81,500	84,500	87,500	96,500	94,500
Less: Operating Expenses	47,159	36,507	36,567	45,550	35,886
EBIT	34,341	47,993	50,933	50,950	58,614
Less: Loan Interest	-	-	-	-	-
EBT	34,341	47,993	50,933	50,950	58,614
Less :Taxes (30%)	10,302	14,398	15,280	15,285	17,584
Net Profit/(Loss)	24,039	33,595	35,653	35,665	41,029
Dividend (20%)	4,808	6,719	7,131	7,133	8,206
<b>Retained Earnings</b>	<b>19,231</b>	<b>26,876</b>	<b>28,522</b>	<b>28,532</b>	<b>32,824</b>

### Projected Retained Earnings

The projected retained earnings show a positively growing trend for the first five years of operation. This is a promising business. It pinpoints to the capability to handle its dues, including salaries for employees, and taxes and levies to the government of the United Republic of Tanzania.



### Projected Cash Flows

Cash flow projections show positive Change in Cash and Cash Equivalents. This is a promising business.

#### **Projected cash flows**

DESCRIPTIONS	Y1	Y2	Y3	Y4	Y5
<b>Cash from Operations</b>					
Profit Before Tax	34,341	47,993	50,933	50,950	58,614
<b>Adjustment for Non-cash Items:</b>					
Depreciation	20,000	20,000	20,000	20,000	18,080
	14,341	27,993	30,933	30,950	40,534
<b>Change in Working Capital:</b>					
Receivables (-ve)	(23,000)	(21,500)	(18,700)	(17,900)	(15,700)
Trade Payables and Accruals	120,000	135,000	115,000	223,000	359,000
Capital Additions	300,000	-	-	-	-
<b>Total</b>	<b>397,000</b>	<b>113,500</b>	<b>96,300</b>	<b>205,100</b>	<b>343,300</b>
	<b>411,341</b>	<b>141,493</b>	<b>127,233</b>	<b>236,050</b>	<b>383,834</b>
Tax Payments	(10,302)	(14,398)	(15,280)	(15,285)	(17,584)

<b>Total Cash Inflow from Operating Activities</b>	<b>401,039</b>	<b>127,095</b>	<b>111,953</b>	<b>220,765</b>	<b>366,249</b>
<b>Cash from Investing Activities:</b>					
<b>Net Cash Outflow from Investing Activities</b>	<b>401,039</b>	<b>127,095</b>	<b>111,953</b>	<b>220,765</b>	<b>366,249</b>
<b>Cash from Financing Activities:</b>					
Dividends	(4,808)	(6,719)	(7,131)	(7,133)	(8,206)
<b>Change in Cash and Cash Equivalents</b>	<b>405,847</b>	<b>133,814</b>	<b>119,083</b>	<b>227,898</b>	<b>374,455</b>
<i>Opening Cash Balance</i>	10,000	13,000	11,000	10,000	9,000
<i>Closing Cash Balance</i>	13,000	11,000	10,000	9,000	5,000

## Project Financing

The project will be financed by foreign equity by 100%. The total planned investment capital is **USD 500,000**.

## Sources of Funding

Funding for this project will come from a foreign loan as shown here:-

<b>Equity</b>	<b>Amount</b>	<b>Percentage</b>
Local Equity	-	0%
Foreign Equity	500,000.00	100%
<b>TOTAL EQUITY</b>	<b>500,000.00</b>	
<b>Loan</b>		
Local Loan	-	0%
Foreign Loan	-	0%
<b>TOTAL LOAN</b>	<b>-</b>	<b>0%</b>
<b>TOTAL FINANCING</b>	<b>500,000.00</b>	<b>100%</b>
<b>TOTAL INVESTMENT</b>	<b>500,000.00</b>	

## Financing of Items

The planned investment capital of **USD 500,000** will be used in funding of items for the Project. 60% of the investment capital will be spent on erecting the plant and installing the machineries for production of the two gases namely oxygen and acetylene. Details of the financing of items are shown in the investment breakdown below:

<b>ITEMS</b>	<b>FINANCING IN USD</b>
Land & Buildings	-
Plant	300,000
Vehicles	50,000
Furniture & Fittings	12,000
Pre Expenses	10,000
Others (Gas Cylinders)	78,000
Working Capital	50,000
<b>TOTAL</b>	<b>500,000.00</b>
TOTAL FIXED CAPITAL	450,000.00
TOTAL WORKING CAPITAL	50,000

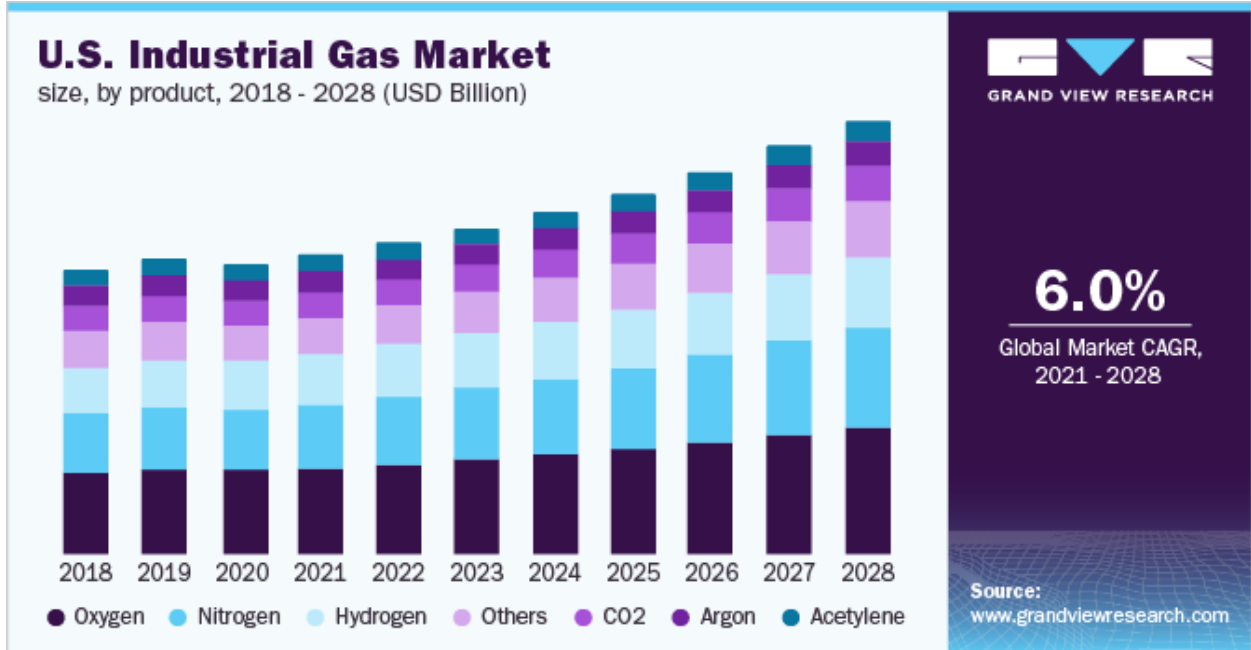
## **MARKET ANALYSIS**

Industrial gases are used in all manner of industrial fields, and contribute to the advancement of industry. This section peruses the market for the industrial gases at global, regional and the local Tanzanian market.

Amusement parks feature in the tourism and hospitality industry. They are an edition in the industry and are gaining popularity in the developing countries as well. The market analysis is done on the global and local Tanzanian perspectives as detailed in the subsections.

### **Global Perspective of the Sector**

According to Fortune Business Insights, the global industrial gases market size is projected to grow from USD 91.29 billion in 2021 to USD 148.16 billion in 2028, at CAGR of 7.2% during forecast period; Surging Investments in Electronics and Metallurgy Industries to Boost Growth. For the USA alone, the projected trends are depicted in the figure below.



In terms of supply mode, globally, bulk supply takes the lead, followed by packaged supply and on-site supply. In the case of this project we will apply the packaged supply mode as we will be supplying to end-user industries and other institutions like hospitals.

### Global Industrial Gases Market

Market Share by Supply Mode (%)



Source: www.expertmarketresearch.com

## Tanzanian Perspective of the Sector

Tanzania is one of the African countries endowed with deposits of natural gas, oil and minerals. Despite the fact that the country is not yet industrialized to global standards of industrialization our company has seen her move toward industrialization. Originally Tanzania's economy was dominated by agriculture and services but now manufacturing (industrial economy) is peaking up.

In the year 2018 Tanzania's industrial sector production reached **USD 13.5 billion (33% of GDP)**, compared to **USD 9.1 billion** in 2014, marking an increase of **48%**. Among the operators in the sector most of them do use industrial gas. As such, there is a promising niche within the country.

## SWOC Analysis for the Project

### Strengths:

1. At the business level the company has competent and experienced personnel who can manage the production and marketing efficiently.
2. The company's promoters have the equity enough to fund the project without seeking for a loan at the moment. This gives the business leverage as it won't have the obligation of paying interest on loans.
3. The management is skilled in matters pertaining to doing business in Tanzania and can navigate through the competitive market in order to perform.

### Weaknesses:

1. The company has confined itself to production of only two industrial gases i.e. oxygen and acetylene. In case of a change in demand to the disadvantage of any or all of these gases the company may lose sales. However, in the long run the company can expand its production lines in order to accommodate production of other gases.

### Opportunities:

1. Tanzania, being a member of the East African Community, provides access to markets within the other states namely the Democratic Republic of the Congo (DRC), Burundi, Kenya, Rwanda, South Sudan and Uganda.
2. Tanzania is picking up its pace in industrialization. With increasing numbers of firms in manufacturing the demand for industrial gases rises. This adds to the assurance of market availability.
3. In terms of power utilities Tanzania has got relatively lower tariffs and has less power cuts. More so in the near future Tanzania is expecting to be exporting electricity which will be generated from the Julius Nyerere Hydro Electric Power plant.

4. In governance Tanzania is characterized by peace and tranquility for there has been no material havoc in the country for years. This is strength as it provides our business with assurance that we will operate smoothly resting assured of our property security.

### **Challenges:**

1. The open doors for Tanzania into the rest of EAC member countries imply the same for the other EAC members into Tanzania. This implies stiffer intra-regional competition where there is duty-free quota-free market access intra-regionally.

## **BUSINESS STRATEGY**

The rapid pace of industrialization in Tanzania has led to growth in number of industrial firms which calls for higher supplies of industrial gases, including oxygen and acetylene. As such, currently, the market is promising.

Our strategy is based on branding of our product and of our company. The marketing team has focused on creating a unique brand in packaging. This is because we use a packaging supply mode as we are going to sell to end-user firms. As part of our strategy we are working on the following strategy activities: -

1. Developing an informative website for branding of our company, products and pre & aftersales services.
2. The marketing personnel producing original content.
3. Staying active on social media.
4. Target our local Tanzanian audience of industrial firms.

## **Operating Philosophy**

The company's operating philosophy is based on the concept of **customer first**. This leads to commitment to serve the customer with the best services and the product. It is s strategy to attract and retain customers. Internally the company's philosophy is based on **team spirit** as a unifying force to excellence of the project.

## **Project Manning**

The project is expected to employ **21 people** 18 of whom are local and 3 foreigners. The foreigners are experts in the manufacturing of industrial gases and can mentor locals to their level of expertise. The detailed number of employees is given below: -

CATEGORY	MALE	FEMALE	TOTAL
Local	13	5	<b>18</b>
Foreign	2	1	<b>3</b>
<b>TOTAL</b>	<b>15</b>	<b>6</b>	<b>21</b>

Gender wise males to be employed are 15 while females are 6. Basing on nationalities, however, the locals account for 85.71% while foreigners make 14.29% of the employees.

Below is a detailed plan for manpower of the project between locals and foreigners, males and females, across positions:-

CATEGORIES	LOCAL		FOREIGN		NUMBER
	Male	Female	Male	Female	
Line Operators (Oxygen)	6	2	1		9
Line Operators (Acetylene)	6	2	1		9
Plant Supervisor/ Director				1	1
Finance and Marketing Manager		1			1
Drivers	1				1
<b>TOTALS</b>	<b>13</b>	<b>5</b>	<b>2</b>	<b>1</b>	<b>21</b>

## RATIONALE OF THE PROJECT

This project is promising to be a success. Its investment will be 100% FDI in terms of equity. The multiplier effect of this investment can be viewed financially, fiscally and socially as detailed below, with reference to **Annex 1** to this Business Plan.

### Fiscal Rationale

The company expects to pay a total of **USD 256,449** as corporate tax and VAT. The income tax and the VAT are projected to be **USD 72,849** and **USD 183,600** respectively. These amounts, projected to be paid over the first 5 years of operation, will go to the Central Government via the TRA and the Treasury.

To the local government in Ilala Municipal Council the company will comply with all levies as stipulated in the Local Government Authorities. Considering materiality, this plan does not include its projections.

### Monetary Rationale

The Project, being financed by foreign equity by 100%, will create an FDI inflow of at least **USD 500,000** in terms of cash and non-cash assets.



## ANNEXES

### Annex 1: Fiscal and Monetary Rationale of the Project

<b>DETAILS</b>	<b>Y1</b>	<b>Y2</b>	<b>Y3</b>	<b>Y4</b>	<b>Y5</b>	<b>TOTALS</b>
Total Production Costs	33,500	33,500	33,500	33,500	33,500	167,500
Total Operating Expenses	47,159	36,507	36,567	45,550	35,886	201,670
Income Tax	10,302	14,398	15,280	15,285	17,584	72,849
VAT on Sales	34,500.0	35,400.0	36,300.0	39,000.0	38,400.0	183,600
Provision for CSR	686.83	959.85	1,018.65	1,019.00	1,172.27	4,857
<b>TOTALS</b>	<b>126,148</b>	<b>120,765</b>	<b>122,666</b>	<b>134,354</b>	<b>126,543</b>	<b>630,475</b>
<b>SUMMARIES</b>						
To the Government	44,802	49,798	51,580	54,285	55,984	256,449
To the Private Sector (SMEs)	80,659	70,007	70,067	79,050	69,386	369,170
To the Society (CSR)	686.83	959.85	1,018.65	1,019.00	1,172.27	4,857
<b>TOTALS</b>	<b>126,148</b>	<b>120,765</b>	<b>122,666</b>	<b>134,354</b>	<b>126,543</b>	<b>630,475</b>