

Edge-Makwande Energy Trading (Pty) Ltd

A Report Comprising of an Environmental Management Plan (EMP), an Emergency Contingency Plan and a Public Consultation Process for the Installation, Operation, Maintenance and Decommissioning of an LPG Bottling Plant

Unit 4, Ongenga SME Park, Ongenga Settlement Ohangwena Region

APP-002052



PROJECT INFORMATION SHEET

EIA Consultant

Project Name : A Liquefied Petroleum Gas Bottling Plant

Type of Project : LPG Bottling Plant for Retail Purposes

Unit 4, Ongenga SME Park

Project Location : Ongenga Settlement

Ohangwena Region

Ministry of Mines & Energy

Competent Authority : No. 1 Aviation Road

WINDHOEK

ECC Application No. : APP- 002052

Report Date : September 2023

Edge-Makwenda Energy Trading Pty Ltd

Box 26230

WINDHOEK

Project Promotor : Atten: Mr Slysken S Makando

Cell: 081 140 6191

Email:edgeenergy3@gmail.com

Ekwao Consulting

4350 Lommel Street

Ongwediva

Cell: 081 127 3027

Email: ekwao@iway.na

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ABBREVIATIONS AND ACRONYMS

TERM	EXPANSION
BAT	Best Available Technology
EC	Environmental Commissioner
ECC	Environmental Clearance Certificate
EIA	Environmental Impact Assessment
EMA	Environmental Management Act
EMP	Environmental Management Plan
IAPs	Interested and Affected Parties
LPG	Liquefied Petroleum Gas
MAWLR	Ministry of Agriculture, Water and Land Reform
MEFT	Ministry of Environment, Forestry and Tourism
MHSS	Ministry of Health and Social Services
MITSME	Ministry of Industrialisation, Trade and SME Development
NamRa	Namibia Revenue Authority
NIDA	Namibia Industrial Development Agency
NSI	Namibia Standards Institute
ORC	Ohangwena Regional Council
PPE	Personal Protective Equipment
SHE	Safety, Health & Environment
SME	Small and Medium Enterprises
SSC	Social Security Commission
NDC	Namibia Development Cooperation
NDP	National Development Plan
WCF	Workmen Compensation Fund
HPP	Harambee Prosperity Plan

DEFINITIONS

TERM	EXPANSION
Assessment	The process of collecting, organising, analysing, interpreting and communicating information relevant to decision making
Business waste	Means any waste generated on any premises used for non-residential purposes, but excluding agricultural properties and small holdings, and does not include general waste, household hazardous waste, garden waste, bulky waste, builder's waste, industrial waste, hazardous waste and health care risk waste
Cumulative Impacts	In relation to an activity, means the impact of an activity that in itself may not be significant but may become significant when added to the existing and potential impacts eventuating from similar or diverse activities or undertakings in the area.
Disposal	Means the discharge, depositing, dumping, spilling, leaking, placing of waste on or at any premises or place set aside by the Council for such purposes, and "dispose" shall have a similar meaning;
Environment	As defined in the Environmental Assessment Policy and Environmental Management Act - "land, water and air; all organic and inorganic matter and living organisms as well as biological diversity; the interacting natural systems that include components referred to in sub-paragraphs, the human environment insofar as it represents archaeological, aesthetic, cultural, historic, economic, paleontological or social values".
Environmental Clearance Certificate (ECC)	A certificate and associated conditions issued in terms of the Environmental Management Act, authorizing a listed activity to be undertaken
Environmental Impact	A description of the potential effect or consequence of an aspect of the development on a specified component of the biophysical, social or economic environment within a defined time and space.
Environmental Management Plan (EMP)	A working document which contains site project specific plan developed to ensure that environmental management practices to eliminate and control environmental impacts are followed during the developmental phases of that site, project and or facility and would normally consist of construction phase, operational phase and decommissioning phases. Commissioning and Operation phases.
General waste	Means any waste generated on or at any premises used - (a) for residential purposes, and includes agricultural properties and small holdings; or (b) as public and/or private facilities and institutions but does not include garden waste (unless specifically determined or authorised by Town Council subject to any conditions or limitations the Council may impose), bulky waste, business waste, builder's waste, industrial waste, hazardous waste and health care risk waste.
Hazardous waste	Means - (a) any waste containing, or contaminated by, poison; (b) any corrosive agent; (c) any flammable substance having an open flash-point of less than 90 degrees Celsius; (d) an explosive or radioactive material and substance; (e) any chemical or any other waste that has the potential even in low concentrations to have a significant adverse effect on public health or the environment because of its inherent toxicological, chemical, ignitable, corrosive, carcinogenic, injurious and physical characteristics; (f) any waste consisting of a liquid, sludge or solid substance, resulting from any manufacturing process, industrial treatment or the pre-treatment for disposal purposes of any industrial or mining liquid waste, which in terms of any law, order or directive relating to drainage and plumbing may not be discharged into any drain or sewer.
Industrial waste	Means any waste generated as a result of business, commerce, trade, wholesale, retail, professional, manufacturing, maintenance, repair, fabricating, processing or dismantling activities, but does not include general waste, garden or bulky waste, builder's waste, business waste, hazardous waste or health care risk waste.
Liquefied Petroleum Gas (LPG)	Liquefied Petroleum Gas is a colourless odourless liquid which readily evaporates into a gas. Normally an odourant is added to the liquid to help detect any leaks. LPG (either Butane or Propane) is generally stored and distributed as a liquid and it is widely used in heating appliances, cooking equipment and vehicles. It is increasingly used as aerosol propellant and refrigerant, replacing chloro-fluocarbons in an effort to reduce damage to the ozone layer. LPG is highly flammable.
Non-compliance	Issues that are in direct non-compliance with the requirements, commitments and/or management measures as approved in the EMP.
Pollution	Means any change in the environment caused by — (a) any waste, substance or matter; or (b) noise, odour, dust or heat, emitted from or caused by any activity, including the storage or treatment of any waste, substance or matter, building and construction, and the provision of any service, whether engaged in by any person or an organ of state if that change has an adverse effect on public health or well-being of people.

Recovery	Means the process or act of reclaiming or diverting from waste any materials, products or by-products for the purposes of being reused, or collected, processed and used as a raw or other material in the manufacture of a new, recycled or any other product, but excluding the use for purposes of energy generation;
Recyclable waste	means waste which has been separated from the waste stream, and set aside for purposes of recovery, reuse or recycling;
Recycling	Means the process or act of subjecting used or recovered waste materials, products or by-products to a process or treatment of making them suitable for beneficial use and for other purposes, and includes any process or treatment by which waste materials are transformed into new products or base materials in such a manner that the original waste materials, products or by-products may lose their identity, and which may be used as raw materials for the production of other goods or materials.
Recycling Facility	Means a facility which receives any waste, materials, products or by-products for the purposes of recovery, reuse or recycling, and includes a buy-back centre.
Reduction	Means the process or act of reducing the nature, type, quality, quantity, volume or toxicity of any waste generated, and "reduce" shall have a similar meaning
Refuse container	Means any receptacle or other container, including a skip, stipulated or approved by the Town Council from time to time, whether supplied by the Council or not, for the storage, depositing and disposal of waste.
Re-use	Means the process or act of sorting and separating, at the point of origin, different materials found in any waste in order to promote and facilitate recovery, reuse and recycling of materials and resources, and "separate" shall have a similar meaning;
Separation	Means the process or act of sorting and separating, at the point of origin, different materials found in any waste in order to promote and facilitate recovery, reuse and recycling of materials and resources, and "separate" shall have a similar meaning;
Storage	Means the temporary storage or containment of any waste for a period of less than 90 days after its generation and prior to its collection for recovery, reuse, recycling, treatment or disposal;
Waste	Means any substance or matter whether solid, liquid or any combination thereof, irrespective of whether it or any constituents thereof may have value or other use, and includes — (a) any undesirable, rejected, abandoned or superfluous matter, material, residue of any process or activity, product, by-product; (b) any matter which is deemed useless and unwanted; (c) any matter which has been discarded, abandoned, accumulated or stored for the purposes of discarding, abandoning, processing, recovery, reuse, recycling or extracting a usable product from such matter; or (d) products that may contain or generate a gaseous component

1 PROJECT INFORMATION

1.1 INTRODUCTION

The proponent whose particulars are presented in **Table 1**, below, would like to establish and to operate a liquefied petroleum gas (LPG) bottling plant at the locality indicated in **Fig. 2**. The envisaged undertaking is a listed activity for which an Environmental Clearance Certificate (ECC) is a mandatory requirement. An ECC is granted by the Environmental Commissioner (EC) in terms of the Environmental Management Act (EMA) (No. 7 of 2007). The Ministry of Environment, Forestry and Tourism (MEFT) is the line ministry responsible for the implementation of EMA.

In this connection, the promoter has appointed Ekwao Consulting ('**Ekwao'**) to handle its ECC authorisation process with MEFT.

Table 1: Particulars of the Promotor

Details of the Promoter			
Name	Edge-Makwenda Energy Trading PTY Ltd (EMET, for short)		
Registration Numbers	2016/0453		
Company Representative	Slysken Sekiso Makando		
Designation	Director		
Postal Address	Box 26230, Windhoek		
Physical Address	Unit 4, Ongenga SME Park Ongenga Settlement, Ohangwena Region		
Office Address	No. 65 Andimba Toivo YaToivo Suderhof, Windhoek		
Contact Details	Tel: 081 140 6191 Email: edgeenergy3@gmail.com		

1.2 THE BRIEF

The brief from the promoter was that the project has been submitted to and screened by MEFT and allocated the following application number **APP-002052**. In terms of the screening notice issued to the promotor, the following documents have to be prepared and uploaded on the EIA platform of MEFT:

- An Environmental Management Plan (EMP),
- An Emergency Response Plan
- Proof of Public Consultation, and
- A Consent letter from the relevant authority.

The LPG bottling plant will be installed and operated from a small industrial unit (Unit 4) situated in the Ongenga SME Park – an industrial park developed by the Ministry of Industrialisation, Trade and SME Development and managed by Namibia Industrial Development Agency (NIDA). Created in 2018, NIDA was established to replace the National Development Cooperation (NDC) with its objective to spearhead the industrialisation initiatives of government in line with national policies and developmental strategies such as the Growth at Home Strategy, Harambee Prosperity Plan and the National Development Plans.

The promoter, EMET has been granted a whole license by the Ministry of Mines and Energy (MME) issued in terms of regulations 12(4) of the Petroleum and Energy Act. The said license is attached to this report, in **Fig. 1**.



MINISTRY OF MINES AND ENERGY

PETROLEUM PRODUCTS AND ENERGY ACT, 1990 PETROLEUM PRODUCTS REGULATIONS (2000)

WHOLESALE LICENCE

[Regulation 12(4)]

WHOLESALE LICENCE (For distribution purposes only as per attached special conditions)		Licence No. W/0317/2022	
Name of licence-holder	Edge-Makwande Energy Trading (Pty) Ltd		
Address of licence-holder	Physical Address	Postal address	
	Erf 4928, 65 Andimba Toivo Ya Toivo Street Suiderhof Windhoek Namibia	P.O Box 26230 Windhoek Namibia	
Location of storage facilities (if necessary, attach separate page)	Will utilize Engen Namibia (Pty) Ltd.'s storage facilitie		
	Conditions applicable to licence eneral and special conditions appli 19 October 2022	cable to licence.	
Issued by the Minister of Min 19 October 2022 at	nes and Energy in terms of regulation Windhoek	Official Stamp (For Office use)	
Minister: Mines and Energy			

Figure 1: Wholesale License

1.3 THIS DOCUMENT

This document consists of three reports prepared by Ekwao Consulting as specified in the screening notice and covers aspects related to the installation, commissioning, operation, maintenance and decommissioning of the LPG bottling plant. The three reports are:

- an EMP (Annexure A),
- an Emergency Response Plan (Annexure B), and
- a Public Consultation Process (Annexure C)

2 DESCRIPTION OF THE ACTIVITY

2.1 INTRODUCTION

EMET is proposing to set up a small scale LPG bottling plant in Industrial Unit No. 4 situated in the Ongenga SME Park as more or less depicted in **Figures: 2 & 3**. The facility will essentially receive liquefied petroleum gas, (LPG) delivered in bulk and pumped into a single aboveground tank to be erected on site. The tank will have a capacity of 10 000 m³ of LPG. Depending on the specifications of the LPG procured, this volume will equate to approximately 6 000 tons and can fill about 125 gas bottles (cylinders) of 48 kg each.

From the aboveground storage tank, LPG is conveyed via a pipeline to a refilling section within the warehouse where cylinders are filled and either stored for sale to walk-in customers or delivered to dedicated end-users in the constituency of Ongenga and beyond.



Figure 2: Project Location – Settlement Layout

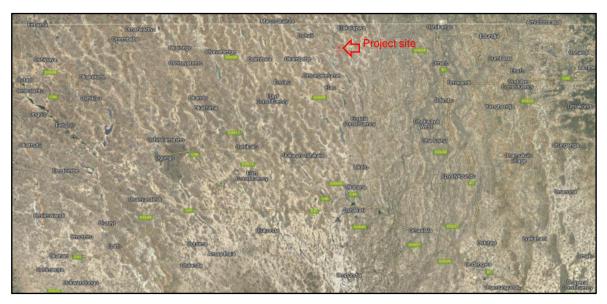


Figure 3: Project Location – Surrounding Villages & Road Networks



Figure 4: Approaching the Ongenga Settlement from the West on $\ensuremath{\mathsf{C}}$



Figure 5: View of All Four Industrial Units Seen from NW



Figure 6: View of Industrial Units seen from West to East

2.2 NATURE AND PROJECT FOOTPRINT

The facility is strictly an LPG bottling plant, storing LPG in an aboveground bulk storage tank, refilling empty gas cylinders with capacities ranging from 5 kg to 45 kg. No by-products or additional products are produced at the site. The project will have a total footprint of 465 m² made up of 315 square meters (m²) of enclosed warehouse and 150 m² of secured yard premises. The bulk storage tank will be erected outside the yard. The industrial units in the SME Park are as shown in **Figures: 5 & 6.** In **Fig. 8**, an aerial view (Google map) of the settlement and development managed by NIDA are presented.

2.3 NEED FOR THE PROJECT AND ITS IMPORTANCE

LPG is predominantly used to heat up cooking appliances such as stoves used in homes, restaurants, cafés and shops. While wood is used by the majority of the rural folks for cooking purposes – this is rapidly changing because chopping down trees for purposes of harvesting of firewood is restricted while availability is also becoming increasingly scarce.

The project is located at Ongenga, a peri-urban area where LPG offers an alternative form of energy to conversional firewood. There is therefore need for the project in the settlement and the surrounding villages as a substitute for firewood for cooking purposes and other applications. However, the viability of the project is outside the scope of this report.

2.4 ACTIVITY DESCRIPTION

LPG is the raw material (input) and end product (output) for the entire bottling process. The input is procured from a third party and delivered in bulk to the project site where it is then offloaded by pumping it into an onsite storage tank. The process is presented in a **Figure** 7, below:

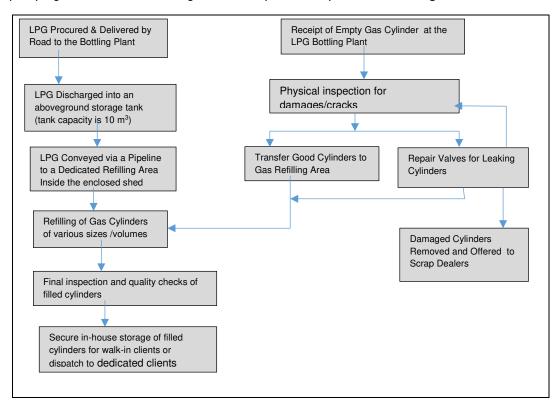


Figure 7: LPG Bottling Process

3 Project Site Baseline Analysis

3.1 SITE BASELINE ANALYSIS

A brief baseline of the project site is presented in **Table 2**, below.

Table 2: Project Site Characteristics

Particulars	Details
Site Location	Ongenga SME Park, Ongenga Settlement
Nature of Location	Settlement (peri-urban area)
Land use or Zone	The unit is designed for industrial applications
Longitude	17° 25' 59" South
Latitude	15° 40' 59" East
Topography	Flat
Site Elevation	1102 m above mean sea level
Road Networks	D3608 leads from B1 at Omafo to Outapi passes through the settlement.
nodu Networks	D3609 leads from D3608 at Omungwelume to Oshakati
Nearest towns/settlements or	Oshakati-Ongwediva – 40 km Ondangwa - 25 km
growth points	Omungwelume (settlement) – 5 km
	Helao Nafidi/Oshikango – 25 km
Nearest railway head	Omafo – 25 km
Nearest airport	Ondangwa – 30 km
Nearest Clinic	Ongenga Settlement has a clinic
Nearest Hospital	Engela State Hospital – 20 km
Nearest police station	Omungwelume – 10 km away
Surface waterbodies	None, but there is an oshana to the west of the settlements which holds water mostly during the rainy season – distance from the site is about 2 km
Archaeologically important sites	None, Ongenga ELCIN church and cemetery are the oldest sites in the area
Communication	Mobile and land based telecommunication infrastructure are available.
Climate	Tropical semi-arid with a dry season lasting between five and six months
Rainfall	Highly variable, but average varies between 400 and 550 mm annually and occurs between September to March. Occasionally, flooding (locally referred to as efundja) has been experienced (2008 and 2022).
Temperature	Ranges from 17 °C in July to about 26 °C in August. Daily maximum during the hottest months of October to December can average 35 °C.
Wind Conditions	Easterly and northeasterly winds are common most of the year. Strong winds often occur before and during thunderstorms during the rainy season.
Evaporation	Average mean annual evaporation measured from open surface water bodies is about 2 480 mm
Soils	Soils of medium textured sandy alcaline cover the whole central alluvial plain and are characterised by a bleached white surface. While most soils are fertile, cultivation is practiced on soils on higher lying areas between the oshanas.

3.2 THE PROJECT SURROUNDS

The immediate surrounds of Unit 4 is briefly described here.

North: To the north of Unit 4 is an open area with the Usave Grocery Store, Nampost and the open market situated about 100m away (**Figures: 8 & 9**). These premises are not likely to be impacted in the event of a major explosion occurring. The intensity of fireball generated during an explosive decreases with increasing distance from the source of explosion and 100 m is considered a safe distance given the volume of 10 m³ that will be handled by the promoter.

South: To the immediate south of all industrial units is a private primary school with over 1000 learners, the majority of whom are accommodated in a hostel. The school hostel is about 20 m (**Figures: 8, 10 & 11)** from the industrial units (this could be a fatal flaw if the LPG bulk storage tank is sited on this side of Unit 4.

East: To the east of Unit 4 is another unit (Unit 3) in which repairs to motor vehicles are being conducted (Figures & 5).

West: To the west of Unit 4 is another enclosed warehouse which is bigger and leased to the private school and used as classrooms (Figures 7, 9 and 11). The main access to the all industrial units is between Units 4 and 5 (Fig. 11).



Figure 8: Google Aerial View of the Project Site



Figure 9: Usave Grocery Store & Open Market Seen from Unit 4



Figure 10: School Hostel is 20 m from the Industrial Units



Figure 11: Unit 4 in Relation to School Hostel



Figure 12: Unit 5 West of Unit 4 is Leased to the Private School

3.3 CURRENT ACTIVITIES IN THE UNIT

At present Unit 4 has been partitioned in two sections. The section to the south is used as vehicle repair workshop (**Figures: 13 & 14**) while the north section is used as storage area for tools and building equipment (e.g. concrete mixtures, ladders, etc. were observed). The proposed activity – LPG bottling plant cannot be performed together with the existing activities conducted in the same unit.

From the safety and health aspects, it is recommended that all other activities be ceased and the unit exclusively dedicated for the envisaged activity. This will ensure a smooth and hazardous-free LPG bottling plant operation.



Figure 13: Repair Section



Figure 14: Tools & Equipment Storage



Figure 15: Scrap Items



Figure 16: Reception area

3.4 EXISTING INFRASTRUCTURE AND SERVICES

Existing infrastructure around the project can be summarised as follows:

3.4.1 WATER AVAILABILITY

The settlement of Ongenga is supplied with good quality drinking water supplied through the Rural Water Scheme – a national Programme under the Ministry of Urban and Rural Development. Other than drinking and cleaning purposes, the project itself does not need the use of water.

Baseline Assessment

It is imperative that water is used sparingly at all times. Any leaks detected should be promptly reported to the landlord and repairs effected as soon as possible.

3.4.2 ELECTRICITY USE AND SUPPLY

Electricity is provided to the SME Park by Nored and each industrial unit within the park is fitted with a prepaid electrical metering unit. The energy requirement for the LPG bottling plant is minimal and can be adequately supplied either from Nored or from a solar system.

Baseline Assessment

The electrical energy requirements of the new LPG bottling plant will not impact negatively on the available energy sources at the settlement.

3.4.3 ACCESS ROAD

The project site is in an area which is served by D3608 - a good tarred road. Surroundings towns are all reached by a network of good tarred roads as presented in **Figure 2**. Parking at the site is adequate.

Baseline Assessment

The LPG bottling plant will not have any impact on the traffic flow on the SME Park or lead to an increase in traffic volume on the main road and auxiliary roads in the constituency.

3.4.4 SEWER

The industrial complex at Ongenga is connected to the sewer line installed to serve the settlement of Ongenga. The operation does not involve the generation of wastewater or industrial effluent. Water used to clean empty gas cylinders will have to recycled and not discharged into the sewerage system.

Baseline Assessment

Wastewater from cleaning of gas cylinders and from washing of floors may not be discharged into the sewer line and should preferably be recycled.

3.4.5 WASTE

The industrial complex is supplied with suitable waste skips but the state of cleanliness inside individual units is generally poor with oil stains all over the places as depicted in photographs (Fig. 10).

Baseline Assessment

No hazardous or chemical waste will be generated during the bottling activities but the hazardous waste is generated from vehicle repair workshops.



Figure 17: Hazardous Waste Around the Units



Figure 18: Oil Stained Floors



Figure 19: Fire Fighting Equipment



Figure 20: Tap Water & Oil Stained Walls

4 THE REGULATIVE FRAMEWORK

For development to take place on a sustainable basis, government has formulated laws, rules and policies that require the implementation of all those projects considered to have an adverse impact on the environment, to be preceded by an environmental scoping assessment. Some of the laws that are applicable to the activity envisaged by the promoter are as listed in Table below.

Legislation	Main Aspects
Environmental Management	a) It defines what the environment is and encourages sustainable management of the environment when natural resources are being exploited/extracted for the benefit of the residents/citizens.
Act (Act. No. 7 of 2007)	b) It also provides for a process of assessment and control of activities that are likely to pose significant effects on the receiving environment.
Environmental Management	Heralded the implementation of the Environmental Management Act almost five years after the Act was approved by the legislature.
Regulations (Gazetted on 12 February 2012)	b) Presents a list of activities that require an ECC prior to commencement.
	c) Regulates and provides guidelines on how EIAs must be conducted.
	The Act regulates the licensing and certification of fuel outlets including related facilities such as LGP bottling plants.
	Section 3 (1) states that No person shall
	operate a retail outlet or conduct the business of a wholesaler, unless authorised to do so under a retail licence or wholesale licence,
	b) operate a consumer installation, inless authorised to do so under a certificate, and
	c) shall possess or store any fuel
	(2) No person shall possess or store any fuel except under authority of a licence or a certificate, excluding
Petroleum Products and Energy Act	
(Govt Gazette No, 5222, 14 June 2013)	Minister of Mines and Energy has under regulation 44 of the Petroleum Products Regulations approved the use in Namibia of these specifications, standards and code of practice:
	the American Standards Institute (ASI) the British Standards Institute (BSI) the South African Bureau of Standards (SABS the South African National Standards (SANS) and the United Kingdom Ministry of Defense (UKMoD)
	SABS 0131-1 : 1977 – The storage and handling of liquid fuel Part 1 – Small consumer installations
	SABS 0131-2 : 1979 – Storage and handling of liquid fuel Part 2 – Large consumer installations
	SABS 0131-3: 1982 – The storage and handling of liquid fuel Part 3 – Bulk low-flash point fuel storage and alied facilities at large consumer installations.
	SABS 0108 – Classification of hazardous locations and selection of apparatus for use in such locations.
Communal Land Reform Act (Act 2 of 2005)	 a) Provides for the allocation of rights in respect of communal land b) Establishes the Communal Land Board c) Provides for the powers of Chiefs and Traditional authorities

Labour Act (Act 11 of 2007 as amended)	 a) The Act contains extensive and detailed provisions relating to the basic employment conditions, rules regarding termination of employment, dismissals and disciplinary action. b) It also provides for the prevention of trade disputes, unfair labour practices, regulates and controls collective job action, employment agencies and all matters incidental thereto.
	c) The Act also provides the right to the employees to speak about work conditions, the right to say no to unsafe work, the right to be consulted about safety in the workplace and the right to workers compensation.
	The Act provides for a legal framework for a structured more uniform public and environmental health system and for matters incidental thereto.
Public and Environmental Health Act (Act No. 1 of 2015)	b) It deals and provides guidelines on noise generation and control thereof within an urban environment.
	c) Also deals with waste management, handling or collection, waste disposal, waste recycling, sanitation, etc.
Public Health Covid-19 General Regulations (as amended throughout 2020 to	a) Provides for a framework on how to deal with the challenges occasioned by the outbreak of the Covid-19 pandemics and includes issues related to restrictions on gathering, testing, contact tracing, quarantine facilities, public transport, sanitation at the work place, etc.
2022)	b) It also provides for burial protocols to be followed for those who succumbed to the pandemic.
Social Security Act Act 34 of 1994 Employees' Compensation	a) Compels employers and employees to make equal contributions to the Social Security Fund. Contribution is based on 0.9% of an employee's basic earnings with a minimum of N\$2.70 and a maximum of N\$81.00
Act (as amended)	b) Requires employers to contribute to an insurance fund which covers injuries and accidents on duties.
Hazardous Substances Ordinance	Provides for the control of hazardous substances with potential to cause harm, injuries and even death.
(No. 14 of 1974)	b) Also provides for the manufacture, handling, storage, sale, use, disposal, etc. of hazardous substances.
Atmospheric Pollution	a) Provides control of noxious or offensive gases and matters incidental thereto.
Prevention Ordinance (No. 11 of 1976)	 Requires best practical means for preventing or reducing the escape into the atmosphere of noxious or offensive gases produced by the scheduled process.
Water Resource Management Act (2004)	The following permits are required in terms of the Water Act: o water abstraction permits; o domestic effluent discharge permits (site offices, construction camp); industrial effluent discharge permits; o water use for dust suppression; and water reticulation permits (pipelines). Will be superseded by Water Resources Management Act 2013 once the regulations are implemented in the future.
National Heritage Act No. 27 of 2004	No archaeological/heritage site or cultural remains may be removed, damaged, altered or excavated. Section 48 sets out the procedure for application and granting of permits, such as the permit required in the event of damage to a protected site occurring as an inevitable result of development. Section 51 (3) sets out the requirements for impact assessment. Part VI Section 55 Paragraphs 3 and 4 require that any person who discovers an archaeological site should notify the National Heritage Council
Namibia Standard Act (Act No. 18 of 2005)	Responsible for the promotion of standardization and quality assurance in the industry, commerce and the public sector in Namibia, with the aim of improving product quality, industrial efficiency and productivity and promoting trade so as to achieve optimum benefit for the people of Namibia.
National Development Plans (NDP5)	NDP5 has its goal to reduce poverty such that by 2022, marginalized communities are integrated into the mainstream economy.
Harambee Prosperity Plan (HPP)	A government plan that is intended to prioritize the implementation of policy Programme that enhance service delivery, contribute to economic recovery and promotes economic growth

5 CONSIDERATION FOR ALTERNATIVES

Since the promoter has already secured the site from the landlord and there are no other units available, the only alternatives considered were with respect to where to place the aboveground LPG bulk storage tank. The dimensions of the tank has been given as 5260 mm in length, 2210 mm in height and 1620 mm in width. These alternatives were considered and evaluated from environmental perspective as follows:

- Place the tank inside Unit 4 in the warehouse
- Place the tank to the South of Unit 4
- Place the tank to the West of Unit 4
- Place the tank inside the front covered porch of Unit 4
- Place the tank to the North of Unit 4 across the access road

5.1 PLACE THE TANK INSIDE UNIT 4

To place the storage tank inside the enclosed workshop is not advisable from a safety aspects. In the event of a major explosion all the industrial units could be destroyed. It is not standard practice to place LPG bulk tanks in a warehouse or shed. This option is there not advisable.

5.2 PLACE THE TANK TO THE SOUTH OF UNIT 4

There is no adequate space to place the bulk storage tank to the south of Unit 4 as can be seen from **Fig. 21** below. The tank will simply not fit there. The other serious consideration to be taken into account is the close proximity of the hostel of the private primary school which accommodates over 1 000 learners. The distance between Unit 4 and the school fence is only 25 m and therefore way too close (**Figures: 8, 10, 11 & 22**).



Figure 21: View of Unit 4 from the South

5.3 PLACE THE TANK TO THE WEST OF UNIT 4

The access road serving all five Industrial Units has been constructed in such a way that it passes between Unit 4 and Unit 5 leaving no pavement on which the tank maybe placed (**Fig. 22**). Placing the tank here will encroach on the access road and therefore not recommended.



Figure 22: Access to all Units is Provided Between Unit 4 and Unit 5

5.4 PLACE THE TANK INSIDE THE FRONT PORCH OF UNIT 4

This location (**Fig.23**) would be ideal if the tank could be made to fit in this section of the unit. It will also result in minimal construction activities and shorter pipelines conveying LPG from the tank to the refilling section inside the unit. The advantage though is that the whole Unit 4 structure and adjacent units could be destroyed in the unfortunate event of an explosion occurring. The space is also small to fit the envisaged tank to be procured.



Figure 23: View of the Front Porch of Unit 4

5.5 PLACE THE TANK TO THE NORTH OF UNIT 4 ACROSS THE ACCESS ROAD

Siting the tank on the position indicated on **Fig. 24** would provide a safe distance between the tank and all Industrial Units such that in the event of an explosion – minimal damage can be expected. With this option, the tank premises has to be secured by erecting a strong security fence around it so that it is protected and safeguarded against unauthorized entry by members of the public.

However, this option will require routing the pipeline from the tank to the refilling section Unit 4 under the access road which will require the input of a civil engineer to prepare the required plans and layout.



Figure 24: Siting Tank North of Unit 4

6 DECOMMISSIONING

Given that a substantial capital has been invested by the promoter in the facility and that the ECC, once granted, has a validity period of three years only, it is not projected that the LPG bottling plant will cease to operate within three years. There is huge demand for LPG – as a substitute for firewood which is used extensively for heating. With restrictions placed on chopping down trees for purposes of wood harvesting – there is a need for the populace to seek alternative heat energy. LPG is therefore the answer.

What is highly likely to happen within the next five years is that the promoter will outgrow the leased premises and will be forced to either relocate to a bigger warehouse or to buy industrial land and have an own purpose built warehouse.

In the event that decommissioning has to happen prematurely, i.e. due to unforeseen circumstances beyond the control of the promoter, i.e. economic factors, sabotage, insolvency, etc., the decommissioning process will be very simple and straightforward with no resultant impacts to the environment. The decommissioning process will entail the complete removal of the aboveground bulk tank, machinery, pipelines and equipment leaving Unit 4 and all fixtures (electricity, water connection, sewer connection, etc.) intact.

The only impact that would be associated with decommissioning is loss of employment, loss of income, loss of revenue to the State coffers (no taxes, etc.), loss of revenue to NIDA (no payment for rent, etc.).

7 CONCLUSIONS & RECOMMENDATION

The management measures recommended in this EMP are adequate to ensure a safe operation of the LPG bottling plant envisaged by **Edge Makwenda Energy Trading** in the Ongenga SME Park at the settlement of Ongenga. The facility has a small footprint and a low impact on the environment.

The mitigation measures provided in the EMP are deemed appropriate and adequate for the scope and scale of the listed activity. If the recommended management measures are properly implemented, it is predicted that the activity will be executed without causing any impacts to the environment.

It is recommended that the applicant be issued with an Environmental Clearance Certificate for its operation provided the tank is installed on the northern side of Unit 4 across the access road.

ANNEXURE: A

An Environmental Management Plan (EMP) Prepared in Support of an Application for an Environmental Clearance Certificate (ECC) Required for the Installation, Operation, Maintenance and Decommissioning of an LPG Bottling Plant

Unit 4, Ongenga SME Park

Ongenga Settlement, Ohangwena Region

APP-002052

Prepared for:

Edge-Makwenda Energy Trading (Pty) Ltd

Prepared by:



PROJECT INFORMATION SHEET

Project Name	A Liquefied Petroleum Gas Bottling Plant
I IUICULINAIIIC	A Liquelled Felloleulli Gas Dollillig Flaill

Type of Project : LPG Bottling Plant for Retail Purposes

Unit 4, Ongenga SME Park

Project Location : Ongenga Settlement Ohangwena Region

- - **9** - - - **9** -

Ministry of Mines & Energy

Competent Authority : No. 1 Aviation Road

WINDHOEK

ECC Application No. : APP- 002052

Date Report Prepared : September 2023

Edge-Makwenda Energy Trading Pty Ltd

Box 26230

WINDHOEK

Atten: Mr Slysken S Makando

Cell: 081 140 6191

Email:edgeenergy3@gmail.com

Ekwao Consulting

4350 Lommel Street

EIA Consultant : Ongwediva

Cell: 081 127 3027

Email: ekwao@iway.na

Project Promotor

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ABBREVIATIONS AND ACRONYMS

TERM	EXPANSION		
BAT	Best Available Technology		
EC	Environmental Commissioner		
ECC	Environmental Clearance Certificate		
EIA	Environmental Impact Assessment		
EMA	Environmental Management Act		
EMET	Edge-Makwenda Energy Trading		
EMP	Environmental Management Plan		
IAPs	Interested and Affected Parties		
LPG	Liquefied Petroleum Gas		
MAWLR	Ministry of Agriculture, Water and Land Reform		
MEFT	Ministry of Environment, Forestry and Tourism		
MME	Ministry of Mines and Energy		
MHSS	Ministry of Health and Social Services		
MITSME	Ministry of Industrialisation, Trade and SME Development		
NamRa	Namibia Revenue Authority		
NIDA	Namibia Industrial Development Agency		
NSI	Namibia Standards Institute		
ORC	Ohangwena Regional Council		
oco	Ongenga Constituency Office		
PPE	Personal Protective Equipment		
SHE	Safety, Health & Environment		
SME	Small and Medium Enterprises		
SSC	Social Security Commission		
NDC	Namibia Development Cooperation		
NDP	National Development Plan		
WCF	Workmen Compensation Fund		
HPP	Harambee Prosperity Plan		

DEFINITIONS

TERM	EXPANSION		
Assessment	In the context of an EIA means the process of collecting, organising, analysing, interpreting and communicating information relevant to decision making.		
Business waste	Means any waste generated on any premises used for non-residential purposes, but excluding agricultural properties and does not include general waste, household hazardous waste, garden waste, bulky waste, builder's waste, industrial waste, hazardous waste and health care risk waste		
Cumulative Impacts	In relation to an activity, means the impact of an activity that in itself may not be significant, but may become significant when added to the existing and potential impacts eventuating from similar or diverse activities or undertakings in the area.		
Disposal	Means the discharge, depositing, dumping, spilling, leaking, placing of waste on or at any premises or place set aside by Ongenga Settlement for such purposes, and "dispose" shall have a similar meaning;		
Environment	As defined in the Environmental Assessment Policy and Environmental Management Act - "land, water and air; all organic and inorganic matter and living organisms as well as biological diversity; the interacting natural systems that include components referred to in sub-paragraphs, the human environment insofar as it represents archaeological, aesthetic, cultural, historic, economic, paleontological or social values".		
Environmental Clearance Certificate (ECC)	A certificate and associated conditions issued in terms of the Environmental Management Act, authorizing a listed activity to be undertaken		
Environmental Impact	A description of the potential effect or consequence of an aspect of the development on a specified component of the biophysical, social or economic environment within a defined time and space.		
Environmental Management Plan (EMP)	A working document which contains site project specific plan developed to ensure the environmental management practices to eliminate and control environmental impacts a followed during the developmental phases of that site, project and or facility and work normally consist of construction phase, operational phase and decommissioning phase Commissioning and Operation phases.		
General waste	Means any waste generated on or at any premises used - (a) for residential purposes, and includes agricultural properties; or (b) as public and/or private facilities and institutions but does not include garden waste (unless specifically determined or authorised by Town Council subject to any conditions or limitations the Council may impose), bulky waste, business waste, builder's waste, industrial waste, hazardous waste and health care risk waste.		
Hazardous waste	Means - (a) any waste containing, or contaminated by, poison; (b) any flammable substance having an open flash-point of less than 90 degrees Celsius; (c) an explosive or radioactive material and substance; (d) any chemical or any other waste that has the potential even in low concentrations to have a significant adverse effect on public health or the environment because of its inherent toxicological, chemical, ignitable, corrosive, carcinogenic, injurious and physical characteristics; (e) any waste consisting of a liquid, sludge or solid substance, resulting from any manufacturing process, industrial treatment or the pre-treatment for disposal purposes of any industrial or mining liquid waste, which in terms of any law, order or directive relating to drainage and plumbing may not be discharged into any drain or sewer.		

Industrial waste	Means any waste generated as a result of business, commerce, trade, wholesale, retail, professional, manufacturing, maintenance, repair, fabricating, processing or dismantling activities, but does not include general waste, garden or bulky waste, builder's waste, business waste, hazardous waste or health care risk waste.			
Liquefied Petroleum Gas (LPG)	Liquefied Petroleum Gas is a colourless odourless liquid which readily evaporates into a gas. Normally an odourant is added to the liquid to help detect any leaks. LPG (either Butane or Propane) is generally stored and distributed as a liquid and it is widely used in heating appliances, cooking equipment and vehicles. It is increasingly used as aerosol propellant and refrigerant, replacing chloro-fluocarbons in an effort to reduce damage to the ozone layer. LPG is highly flammable.			
Non-compliance	Issues that are in direct non-compliance with the requirements, commitments and/or management measures as approved in the EMP.			
Pollution	Means any change in the environment caused by — (a) any waste, substance or matter; or (b) noise, odour, dust or heat, emitted from or caused by any activity, including the storage or treatment of any waste, substance or matter, building and construction, and the provision of any service, whether engaged in by any person or an organ of state if that change has an adverse effect on public health or well-being of people.			
Recyclable waste	means waste which has been separated from the waste stream, and set aside for purposes of recovery, reuse or recycling;			
Recycling	Means the process or act of subjecting used or recovered waste materials, products or by-products to a process or treatment of making them suitable for beneficial use and for other purposes, and includes any process or treatment by which waste materials are transformed into new products or base materials in such a manner that the original waste materials, products or by-products may lose their identity, and which may be used as raw materials for the production of other goods or materials.			
Refuse container	Means any receptacle or other container, including a skip, stipulated or approved by the Town Council from time to time, whether supplied by the Council or not, for the storage, depositing and disposal of waste.			
Re-use	Means the process or act of sorting and separating, at the point of origin, different materials found in any waste in order to promote and facilitate recovery, reuse and recycling of materials and resources, and "separate" shall have a similar meaning;			
Separation	Means the process or act of sorting and separating, at the point of origin, different materials found in any waste in order to promote and facilitate recovery, reuse and recycling of materials and resources, and "separate" shall have a similar meaning;			
Storage	Means the temporary storage or containment of any waste for a period of less than 90 days after its generation and prior to its collection for recovery, reuse, recycling, treatment or disposal;			
Waste	Means any substance or matter whether solid, liquid or any combination thereof, irrespective of whether it or any constituents thereof may have value or other use, and includes — (a) any undesirable, rejected, abandoned or superfluous matter, material, residue of any process or activity, product, by-product; (b) any matter which is deemed useless and unwanted; (c) any matter which has been discarded, abandoned, accumulated or stored for the purposes of discarding, abandoning, processing, recovery, reuse, recycling or extracting a usable product from such matter; or (d) products that may contain or generate a gaseous component			

1. PROJECT OVERVIEW

1.1 INTRODUCTION

This Environmental Management Plan (EMP) is compiled by Ekwao Consulting (**Ekwao**) to serve as a standalone plan to manage and mitigate the environmental impacts associated with the installation, commissioning, operation, maintenance and or decommissioning of an LPG bottling plant envisaged by Edge-Makwenda Energy Trading (EMET, for short) at Ongenga Settlement.

In terms of the Environmental Management Act and EIA Regulations, an LPG bottling plant is a listed activity for which an Environmental Clearance Certificate (ECC) is mandatory. In the EMP, a series of individual management plans and actions have been proposed to ensure that the LPG bottling plant is operated and maintained in a manner that is technically safe and environmentally sustainable.

1.2 PURPOSE AND OBJECTIVES OF THE EMP

These are:

- To comply with all applicable legislations and standards so as to limit potential negative impacts on the surroundings and biodiversity during the operational phase of the LPG bottling plant.
- To ensure that all employees who will be hired to work at the LPG bottling plant are well trained and acquainted with all safety standards applicable at an LPG bottling plant.
- To ensure that resources such as water, electricity and energy are used sparingly including consideration of alternatives i.e. water recycling, solar power instead of relying on conversional grid energy.
- To ensure that the operational activities associated with the LPG bottling plant do not result in undue or unreasonably adverse environmental impacts.
- To ensure that the functions at the LPG bottling plant are clearly outlined and responsibilities assigned to
 persons who are well trained and experienced.
- To propose effective mechanism for monitoring of compliance, and for preventing any possible long term or permanent environmental degradation through an adaptive management approach to continuous improvements.
- To promote environmental awareness and understanding among employees and any third parties, e.g. contractors who may be hired to work at the facility from time to time.
- To ensure that stakeholders especially the clients who will be buying gas cylinders are acquainted with all
 applicable safety standards when handling cylinder units and to attend to any complaints received from any
 stakeholders with respect to negative impacts on the environment.
- To ensure secure storage and handling of filled gas cylinders at the premises, including effective inspection of all pipelines and empty cylinders delivered to the facility prior to filling up such units.
- To develop, implement and manage monitoring systems to ensure good environmental performance with respect to waste handling, air pollution, surface water contamination and biodiversity.

Finally, it is important to note that the EMP is a dynamic document, flexible and responsive to new and changing circumstances and should therefore be updated as and when required. Any major changes to the LPG bottling plant i.e. renovation, upgrade or expansion should be authorised by the EC through an amendment to the EMP.

1.3 POLICES AND LEGAL REQUIREMENTS

The policies and legal requirements pertaining to the proposed project have been outlined in the scoping assessment section of the report and are not repeated here. The acceptance of the EMP by the EC and the granting of an ECC to EMET will confer a legal obligation on the applicant to comply with the specifications and provisions of the EMP. Should the applicant fail to comply with such terms and provisions, it is deemed as a contravention of the EMA and as such is criminally prosecutable.

This EMP includes all relevant documentation contained therein or referred to within it, along with any amendments, appendices or annexures. The EMP is binding on the management of EMET, to any current and future employees as well as to contractors who may be hired to carry out maintenance work or renovations at the LPG facility from time to time. It is also applies to any visitors/clients doing business with the company.

1.4 IMPLEMENTATION OF THE EMP

The implementation of the EMP is a recurring process that converts mitigation measures into actions and through monitoring, auditing, review and corrective action, ensures conformance with the overall aims and objectives of the project. This EMP has addressed impacts associated with these phases of the development:

Table 1: Implementation of the EMP

Phase	Description	Remarks
Installation of equipment, machineries and accessories	The measures proposed for this phase include activities related to the planning, designing and installation of the aboveground LPG tank for bulk storage, required pipe infrastructure as well as any construction activities that may be required and the removal of any building rubbles.	The installation period is scheduled to take place over 6 months
Commissioning, Operation and Maintenance	The measures proposed for this phase are meant to deal with environmental impacts associated with the Commissioning of the LPG Bottling Plant (training of employees on all aspects of the LPG bottling plant including safety measures and the Contingency Plan), day-to-day operational activities of the facility as well as scheduled maintenance work and attending to breakdowns.	The plant will be operated during normal business hours of 07h00 to 17h00, Monday to Friday and from 08h00 to 13h00 on Saturdays
Decommissioning	The capital investment into the proposed LPG bottling plant is quite substantial, however, provisions for decommissioning has been made in the event of the facility having to cease operation due to factors beyond the control of the promoters — economic factors, sabotage, etc.	

2. ROLES AND RESPONSIBILITIES

It is the responsibility of the Management of EMET to ensure that all environmental management actions are carried out effectively and timeously. However, it is also important to keep in mind that the successful implementation of the EMP is dependent on clearly defined roles and responsibilities by a number of role players as listed in Table below:

Table 2: Roles and Responsibilities

Statutory Stakeholders :			
	Amongst the roles and responsibilities of the EC are to:		
	Review the EMP, Emergency Plan and PPP reports and any revisions thereof;		
	Grant or refuse to grant the ECC;		
Environmental	Ensure overall compliance with the terms of the ECC & EMP.		
Commissioner	Review any monitoring and auditing reports submitted on the project.		
	Carry out site audits at the LPG bottling plant at their discretion.		
	Review any incident or accident report, and		
	Enforce any legal mechanisms for contraventions to the EMP and ECC.		
	A license is mandatory when dealing with LPG products which EMET has already obtained from MME. The applicant, EMET is expected to apply for the said licence and to comply with the licensing requirements. Amongst the roles of MME are:		
Ministry of Minos	To ensure that LPG bottling plant meets the minimum requirements as specified for LPG		
Ministry of Mines and Energy	trading.		
	Delivery of bulk LPG to the bottling plant must be made by a licensed and certified bulk carrier.		
	Ensure that the facility meets the safety and health standards.		
	To enforce compliance mechanism for the license granted		
	Enforce compliance mechanism for the licence granted		
Namibia Industrial	Ongenga SME Park is owned by government and managed by NIDA. The park has been developed to stimulate economic activities in the settlement of Ongenga and consists of a number of shops and industrial units specifically built for manufacturing activities. The onsite sewerage system is managed by NIDA and discharge of the following is prohibited without the approval of NIDA:		
Development	Discharging into the sewer system of any gas or stream.		
Agency (NIDA) – Landlord	Discharging of any liquid other than domestics waste water.		
Landiora	Discharging of any petrol or oil or substances containing petrol or oils.		
	Discharging of any liquid refuse from any abattoir and or containing any chemical refuse.		
Ministry of Health & Social Services - Health Inspector	In rural locations where there are no local authority, the regional Health Directorate is tasked with the responsibility of carrying out inspections on any business premises operating in a rural setting for the purpose of granting a Certificate of Fitness.		
The Promoter – E	Edge-Makwenda Energy Trading PTY Ltd		
Promoter /Management	Ensure that all requirements with regards to the EMP are fulfilled.		
	To ensure that the environmental authorisation clearance (ECC) and other mandatory permits (LPG Retail License or equivalent from MME, Fitness Certificate from Regional Health Inspectorate, necessary connections for consumables (water, electricity, etc.) are obtained.		
	To ensure that a qualified and experienced person whose designation is a LPG Bottling Plant Manager is appointed.		

	 To ensure that company policies are developed and implemented including a suitable training programme for staff and personnel. To ensure that the LPG Bottling Plant is installed and commissioned by an experienced and qualified contractor in consultation with the LPG bulk supplier. To ensure that the Emergence Contingence Plan for the facilitate is developed and implemented. 		
	To oversee the day-to-day operation of the plant within		
	 To ensure that all requirements with respect to this EMP are fulfilled. To ensure that the required personnel for the plant is recruited in manner that is 		
	transparent and fair.		
	To ensure that an induction programme and suitable training are provided to personn including the provisions of the EMP.		
	To ensure personnel is supplied with suitable PPEs is provided construction activities ensuring that the provisions of the EMP are implemented.		
Manager – LPG Bottling Plant	To ensure that any complainants and grievances received from stakeholders are investigated and corrective measures taken.		
	To ensure that a high standard of housekeeping is maintained at the facility at all times.		
	To ensure that the LPG Bottling Plant remains in compliance of the requirements pof the EMP through regular communications and monitoring		
	To maintain good communication regarding the EMP with all stakeholders including ensuring that any complaint received is attended to, corrective action taken and, where warranted, feedback is provided.		
	To ensure that the environmental values, potential impacts, management measures and emergency responses are understood and implemented.		

3. DESCRIPTION OF THE ACTIVITIES RELATED TO THE LPG BOTTLING PLANT

The various activities involved in the LPG bottling plant are presented in Table below:

Table 3: Activities Related to the Facility

Activity	Description	Associated Aspects and Potential Impacts		
Installation		Soil excavations	Soil disturbances	
	Erection of an aboveground LPG storage tank on the premises	Tank erection	Visual nuisance	
		Pipelines conveying	Leaking	
		LPG to refilling area	Fire hazard	
			Fire hazard	
		Leaking	Risk of explosion Odour – smell	
		Runoff water	Contamination of soil profile	
	Discharging LPG from bulk road tanker into the onsite tank		Potential contamination of surface and groundwater sources	
LPG discharging			Negative impact to floral and faunal diversity	
			Release of smoke & fumes	
		Fire	Air pollution	
			Explosion	
	Empty gas cylinders are received at the LPG Bottling Plant for refilling	Inspection and washing of units	Potential release of hazardous waste during cleaning	
		Poor handling of cylinder units	Incidents/Accidents	
		Poor fixing/repair of damaged units	Explosion including fire	
Receiving of gas cylinders		Repairing of damaged cylinders	Noise	
		No suitable PPEs used	Safety – accidents	
		Lack of training	Safety issue Accidents	
			Incidents	
			Possibly release of hydrocarbons	
		0 (111)	residue	
	Incorrect use of equipment	Over refilling	Safety issues May harm end-users	
			Fire/explosions	
		Lack of training	Fire/explosion	
Defilling of son		No suitable PPEs provided	Safety – danger	
Refilling of gas cylinders		Lack of supervision	Safety concerns	
- cyac.c			Fire	
			Explosions	
	Poor maintenance and	Breakdowns	Accidents/incidents	
	servicing of filling equipment	Neglect	Accidents/accidents	
		Exposure to elements	Explosion	
Storage of filled	Incorrect storage	Theft		
cylinders	Incorrect handling of filled	Vandalism	Fires	
	Incorrect handling of filled cylinders		Fires	

3.1 MITIGATION AND MANAGEMENT MEASURES

The management of the LPG Bottling Plant has to ensure that the potential impacts listed in Table 3, above, are adequately managed and effectively monitored with the objective being to avoid, to eliminate or to reduce such impacts. In Table 4, below recommended mitigation/management measures are presented with each mitigation measures assigned to a responsible party (person).

Table 4: Impact Mitigation and Management Measures

Aspect	Environmental Objective	Mitigation /Management Measures	Responsible Person
Installation of an aboveground LPG bulk storage tank	Ensure that minimal disturbance occurs during any excavations or trenching that may be required for the LPG bulk tank installation.	 Ensure that no damage is caused to any underground infrastructure (pipelines for sewerage & water and electrical cables). Limit trenching for any columns to the specific site identified. Ensure that any excavations made do not comprise the structural integrity of existing buildings on the premises. Any soil not used for backfilling must be removed from the premises and disposed in a responsible manner. Erect the tank in such a manner that it shielded away from the public view by existing structures and does not become a visual nuisance to the public. The site must be accessible by an engine fire (fire brigade) in the event of fire outbreak. 	Promoter
Pipelines conveying LPG from the bulk tank to the refilling area and fittings.	Ensure that good quality pipelines and fittings that meet industry specifications and standards are used.	 The LPG bottling plant must be designed to appropriate standards by a qualified and experienced person. All conveying pipelines/devices and fittings must be installed by competent persons who are qualified and experienced. Adequate training must be provided to all personnel who will be employed at the facility. Ensure that any pipelines conveying LPG are painted with an odourant paint that helps to detect any leaks. The plant must be identifiable and accessible for regular inspections and maintenance work. 	Promotor
Empty cylinder bottles	Ensure that all empty gas cylinders presented for refilling are safe and fitted with functional valves.	Check LPG cylinders for any obvious visible damages and or cracks. Check that the valve mechanism is working properly and not damaged. Replace valves that can be replaced. Gas cylinders with internal contamination must be cleaned by following the method prescribed by the cylinder manufacturer. Clean the gas cylinders by washing them with clean soap water.	LPG Manager
Refilling or bottling device (carousel)	Protect amenity values by ensuring that	Ensure that refilling equipment is operated by trained and experienced personnel.	LPG Manager

		-	
	refilling equipment is operated by well	The equipment/device used for refilling must be regularly serviced and well maintained.	
	trained personnel	Proper records of servicing or maintenance must be kept on file at all times.	
		 Personnel conducting refilling must be provided with suitable PPE. 	
		The refilling area must be secure and access limited to personnel who are well trained to operate the device/equipment.	
		The refilling area must be kept tidy and clean at all times.	
	Minimise the risk of impact to the	LPG has a distinctive smell added to help detect possible leaks.	
Gas spill during	environment through carefully handling of LPG refilling and handling.	When a smell is felt, turn off the refilling device immediately and follow the procedure recommended by the supplier.	
	Ü	LPG is highly flammable and no sources of ignition such as smoking or open fire should be kept in close proximity of the refilling area.	LPG Manager
refilling		All electrical switches/plugs in close proximity of the refilling area should be turned off.	
		If a large leak is suspected, keep people, vehicles and ignition sources away and, if warranted cordon off the area.	
		In case of fire, immediately call the fire brigade and follow the mergence procedure.	
	Ensure that cylinders are stored in a safe and hazardous-free	 Ensure that cylinders are stored in an upright position such that LPG cannot contact the cylinder valves. 	
	manner	 Cylinders should be kept in a well ventilated place, which is secure or locked, outside the enclosed warehouse and preferably away from direct sunlight. 	
Handling of filled cylinders		Store cylinders away from walkways and any entrance or exit doors.	LPG Manager
		Keep segregated so that volatile and incompatible gases are not stored together.	
		 Cylinders should be labelled and tagged so that staff personnel know what is inside the bottle. The label should read that the cylinder has been tested, giving the date of test and that it has been tested as 'safe to use'. 	
Environmental awareness training	Eliminate any possible occurrence of environmental aspects	Ensure that all personnel employed at the LPG bottling plant are given an environmental awareness training.	Promotor// DC
	and minimise their impacts on the environment.	All personnel should be made aware of their individual roles and responsibilities with respect to compliance with the EMP.	Promoter/LPG Manager
Noise pollution	Reduce nuisance and associated annoyance emanating from increased noise levels	Limit the operation of the LPG bottling plant to working hours of 07h00 to 17h00 from Monday to Friday and 07h00 to 12h00 on Saturdays.	LPG Manager

Use of resources at the LPG bottling plant	Ensure that resources are used in a sustainable manner so as to prevent resource depletion	No activities including maintenance may be carried out outside normal working hours or during Sundays and or on public holidays. Keep all noise generating activities at the facility to the minimum. Water: Limit water wastage by implementing a preventative maintenance plan during which all taps and water pipes are inspected for any leaks, replaced and repaired re reported to the landlord. Electricity: Encourage energy saving techniques by making use of energy saving bulbs. Consider the use of sustainable alternative energy sources such as solar power	LPG Manager
Waste Handling and Disposal	Avoid and mitigate potential impacts on the environment caused by poor waste handling and disposal.	Ensure that the project site is kept clean by having waste picked up and placed in appropriate waste bins provided by the landlord at the facility. Train staff on waste management and handling including separation of waste by types and placing in designated bins as provided. Promote waste recycling. Ensure	LPG Manager
Waste water management	Avoid and mitigate potential impacts on the environment caused by poor waste water handling.	Waste water is discharged into the sewer system serving the SME Park. Wastewater from washing of cylinders is contaminated should not be discharged into the sewer system of the SME Park. Wastewater should be recycled by washing the cylinders in a suitable container which allows for the sedimentation to settle at the bottom. The clean water at the top of the container is then used multiple times. Discharging of wastewater into the natural environment should be prevented at all times.	LPG Manager

3.2 MONITORING

It is recommended the following parameters be monitored and reported on a yearly basis:

- Volume of LPG procured per quarter
- Volume of LPG refilled per month
- Number of cylinders in circulation
- Number of cylinders repairs and scrapped
- Water consumption
- Electricity consumption
- Minor and major incidents (spills, leaks ,etc.)

4. RECOMMENDATION

Ekwao is confident that the management measures outlined in this EMP to mitigate the environmental impacts associated with the LPG bottling plant proposed by Edge-Makwenda Energy Trading are more than adequate, and if implemented will result in minimal impacts to the receiving environment.

It is recommended that an ECC be granted to **Edge-Makwenda Energy Trading** for the installation, commissioning, operation and maintenance of its LPG bottling plant in Unit 4 at Ongenga SME Park provided that the promotor commits itself to comply with mitigation measures recommended in the EMP.

ANNEXURE: B

Emergency Contingency Plan Prepared in Support of an Application for an Environmental Clearance Certificate (ECC) Required for the Installation, Operation, Maintenance and Decommissioning of an LPG Bottling Plant

Unit 4, Ongenga SME Park

Ongenga Settlement, Ohangwena Region

APP- 002052

Prepared for:

Edge-Makwenda Energy Trading (Pty) Ltd

Prepared by:



PROJECT INFORMATION SHEET

Project Name : A Liquefied Petroleum Gas Bottling Plant

Type of Project : LPG Bottling Plant for Retail Purposes

Unit 4, Ongenga SME Park
Project Location : Ongenga Settlement

Project Location : Ongenga Settlement
Ohangwena Region

Ministry of Mines & Energy

Competent Authority : No. 1 Aviation Road

WINDHOEK

ECC Application No. : APP- 002052

Date Report Prepared : September 2023

Edge-Makwenda Energy Trading Pty Ltd

Box 26230

WINDHOEK

Project Promotor : Atten: Mr Slysken S Makando

Cell: 081 140 6191

Email:edgeenergy3@gmail.com

Ekwao Consulting

Polokwane Country Estate

EIA Consultant : Outapi Rural - OUTAPI

Cell: 081 127 3027

Email: ekwao@iway.na

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DEFINITION OF TERMS

Term	Expansion
Disaster	Means an occurrence of such magnitude as to create a situation in which the normal patterns of life within an industrial complex are suddenly disrupted and in certain cases affecting the neighbourhood seriously with the result that the people are plunged into helplessness and suffering and may need food, shelter, clothing, medical attention protection and other life sustaining requirements;
Emergency	Means a situation or scenario which has the potential to cause serious danger to persons, environment or damage to property and which tends to cause disruption inside or outside the premises and may require the help of outside resources;
Emergency Response Vehicle	Means a vehicle for handling emergencies having necessary equipment meant for rescue and relief operations such as an ambulance or Fire engine, etc.
Hazard	Means an event related to the property of substance or chemicals with a potential for human injury, damage to property, damage to the environment, or some combination
Incident	Means an unplanned or unintended or intended event having potential to cause damage to life, property and environment
Incident Record Register	Means a register containing complete information pertaining to all incidents covering near miss, and all other incidents leading to emergencies
Installation	Means facilities, namely, gaseous product pipeline, liquid product pipeline, hydrocarbons processing installation, oil and natural gas terminals and commercial storage and transportation, hydrocarbons gas bottling installations including retail outlets.
Leak	Means release or discharge of a dangerous chemicals or substances or material into the environment.
On Site Emergency	Means an emergency that takes place in an installation and the effects are confined to the Installation premise's involving only the people working inside the plants and to deal with such eventualities is the responsibility of the occupier and is mandatory. It may also require help of outside resources;
Risk	Means the chance of a specific undesirable event occurring within a specified period or in specified circumstances and it may be either a frequency or a probability of a specific undesirable event taking place.
Risk Analysis	Means the identification of undesirable events that could lead to the materialization of a hazard, the analysis of the mechanism by which such undesirable events could occur, the estimation of the extent, magnitude and likelihood of any harmful effects
Risk Assessment	Means the quantitative evaluation of the likelihood of undesired events and the likelihood of harm or damage being caused by such events together with the value judgements made concerning the significance of the results.
Risk Management	Means the management plan that includes all programs that are designed to reduce the risk of emergencies, involving acutely hazardous materials. Such plans include, but are not limited to, ensuring the design safety of new and existing equipment, standard operating procedures, preventive maintenance, operator training, incident investigation procedures, risk assessment, emergency planning, and internal and external procedures to ensure that these plans are being executed as intended.
Spill	Means an unintended release or discharge of hydrocarbons or any other dangerous liquid into the natural environment.

1 INTRODUCTION

This Emergency Response Plan (ESP) has been prepared for the LPG Bottling Plant envisaged to be installed, commissioned and operated by the promoter, Edge-Makwenda Energy Trading (PTY) Ltd. The facility will be installed in Unit 4, Ongenga SME Park in the settlement of Ongenga, Ohangwena Region.

The LPG Bottling Plant has a designed capacity of 10 m³ of LPG, stored bulk in an aboveground tank. From the bulk tank, LPG is piped into an enclosed shed where empty gas cylinders of various sizes are filled. Essentially, the facility will serve as a retailing site, receiving bulk liquefied petroleum gas, storing the gas in an aboveground tank, receiving empty cylinders of various sizes from walk-in clients, refilling such cylinders and keeping filled cylinders for sale.

1.1 Personnel Compliment

The LPG Bottling Plant will have a staff compliment of six with the designations as indicated in Table below:

TABLE 1: PERSONNEL COMPLIMENT

Designation	Compliment
Manager - LPG Bottling Plant	One (1)
Bookkeeper	One (1)
Receptionist	One (1)
LPG Filling Operator	One (1)
LPG Filling Assistant	One (1)
Handyman/Messenger	One (1)
Security	Three (3)
Total Staff Compliment	Nine (9)

1.2 Legal Requirements

The operation of an LPG Bottling Plant is a listed activity which may not be undertaken without an Environmental Clearance Certificate (ECC) having obtained from the Ministry of Environment, Forestry and Tourism (MEFT). When an application for an ECC was submitted to MEFT, the promoter was requested to prepare an Emergency Response Plan (ERP) for the facility.

2 CONTINGENCY PLAN

Notwithstanding sound preventative and precautionary measures taken in the installation, commissioning, operation and maintenance of an LPG Bottling Plant, the possibility of a mishap cannot be completely ruled out. It is therefore good business practice to prepare a Contingency Plan to deal with any incidences which may occur that are likely to affect the 'life and property' both within the LPG Bottling Plant and in the immediate neighbourhood.

Generally, an emergency could be the result of leakage of LPG from filled or defective cylinders or from non-observance of operating instructions. Incidences could also result from acts outside the control of the management of the LPG Bottling Plant such as flooding, sabotage or erven arson.

A major emergency in the LPG is one which may cause serious injuries or even loss of life and damage to property. The ERP explains the code of conduct that all personnel in the employment of the company are expected to comply with, along with actions to be carried out in the event of an Emergency. This plan gives the guidelines for the LPG staff, defines their responsibilities and also informs about prompt rescue operations, evacuation, coordination and communication, etc.

2.1 Emergency

Any emergency is a situation, which may lead to or cause large scale damage or destruction of life, property or environment within or outside the LPG facility. Such an unexpected situation may be too difficult to handle for the normal work-force employed at the facility.

2.2 Nature of Emergency

In the context of this report, any of the following events occurring at the LPG Bottling Plant will constitute an emergency:

- Heavy leakage;
- Fire/explosion;
- Major Accident structural or building collapse,
- Any spills or leak from the aboveground bulk storage tank
- Natural calamities like storm, flood, disease outbreak; etc.
- Sabotage act, civil commotion, air raid, etc.
- Bomb threat

2.3 Objectives of the ERP

These are:

- To control the emergency, localise it and if possible eliminate it.
- To avoid confusion, panic and to handle the emergency with clear-cut actions.
- To minimise loss of life and property to the facility as well as the neighbourhood.
- To make head count and carry out rescue operations.
- To treat the injured persons.
- To preserve records and to take steps to prevent recurrence.
- To restore normalcy.

2.4 Scope

The Scope of this contingency plan is to address the following:

- The identification of emergencies;
- The mitigation measures that attempt to reduce and eliminate the risk or disaster;
- The preparedness to develop plans for actions when disaster or emergencies occur;
- The responses that mobilize the necessary emergency services including responders
 like fire brigade services, police services, medical services including ambulance, government as well as
 non-governmental agencies;
- The post disaster recovery with aim to restore the affected area to its original conditions;

3 EMERGENCY RESPONSE PLAN

Emergencies can be categorized into three broad levels on the basis of seriousness and response requirements, namely:

TABLE 2: EMERGENCY CATEGORIES

Category Level	Expansion
Level - 1	Emergencies which can be effectively and safely managed, and contained within the site, location or installation by the available resources; has no impact outside the site, location or installation.
Level - 2 Major emergency which cannot be effectively and safely managed or contained at the lo installation by available resource and additional support is alerted or required. It is having o potential to have an effect beyond the site, location or installation and where external sumutual aid partner may be involved. It is likely to be a danger to life, the environment or to i assets or reputation.	
Level - 3	Major emergency or an incident with off-site impact which could be catastrophic and is likely to affect human lives, property and environment inside and outside the installation. This situation will require concerted efforts and coordination by external stakeholders – at the regional level.

Note: For the purpose of this ERP, Level-1 and Level-2 shall be grouped as on-site emergencies and Level-3 as an off-site emergency.

3.1 Pre-Emergency Planning

The first step towards developing an ERP for the LPG facility is to identify potential on-site and off-site hazards such as:

- gas leaks,
- spills,
- fire /explosion,
- transportation incidents,
- · pipeline ruptures,
- · equipment failure, and
- natural calamities, etc.

Information on toxicological, physical, and chemical properties of the LPG that will be provided will be presented in a product datasheet which should be studied and understood by the management of the facility.

The identification of any potential impact on air quality or downstream water quality from an incidental release and possible danger to human and animal health; hazards to the installation shall also include natural perils such as floods and or severe storms.

3.2 Action Plan for Potential Emergencies

In Table 3, below are the plans proposed to be followed in the event of any emergencies arising at the LPG Bottling Plant.

TABLE 3: ACTION PLAN FOR POTENTIAL EMERGENCIES

Aspect	Procedure(s) /Actions Required/Management Measures				
Fire Plan	The management of the facility must develop a fire plan, which should be clear, kept up- to-date and copies kept at the facility entrance and in the office in a clear area, visible to all staff personnel and any gusts visiting the premises.				
	All employees at the facility should be made familiar with the fire plan.				
	With respect to the Fire Plan, the Manager of the LPG Bottling Plant will be expected to perform these duties: To be the focal point for liaison between the company and all the relevant stakeholders				
	(Fire Brigade, Ambulance, Police, Landlord, Government Agencies, etc.)				
Duties of the Manager	To supervise and control all company staff on the premises and to coordinate all activities to ensure the preservation of life, to minimise loss of assets and damage to the environment.				
	To ensure that safe guards are taken against any security breaches.				
	To ensure that all incidents/accidents are recorded and where warrantied reported to the relevant government ministries.				
	These steps/procedure is recommended:				
	The person discovering the fire must shout out 'Fire, Fire, Fire				
	The person should immediately try to put out the fire.				
	The fire alarm should be sounded to alert all people inside and outside of the premises of the eminent danger.				
	On hearing the fire alarm all activities on the premises must be stopped immediately. Key personnel must identify that all valves on the pipeline are closed.				
	All electrical supply sources must be isolated and the main switch turned off by a qualified person.				
Eiro Drocoduro	All windows on the building are to be closed.				
Fire Procedure	The building is to be evacuated and all persons are to report at the designated fire assemble point.				
	The site must be closed for all traffic expect those responding to the fire emergency situation.				
	It is expected that staff personnel who have been trained as responders will grab fire extinguishers and water hoses and take up their positions in order to tackle the fire without putting themselves at risk in any way.				
	All staff personnel not assigned any specific duties must remain at the fire assessable point for any instructions from the Manager.				
	If the extent of the fire is such that the personnel at the LPG Bottling Plant are unable to cope, then the nearest fire brigade (Oshakati/Ongwediva) must be alerted and invited to the site for assistance. In the event that external assistance becomes necessary then the personnel should take the necessary precautionary to contain the fire on the premises.				

Aspect	Procedure(s) /Actions Required/Management Measures	
	In the event of fire starting at the LPG Bottling Plant during discharging into the aboveground bulk storage tank, proceed as follows:	
Fire occurring during	Cease all pumping (discharging) activities and close all the valves.	
discharging of LPG.	Immediately notify the LPG Bottling Plant Manager.	
	Initiate the Fire Procedure as above.	
Fire occurring in the	In the event of the fire occurring in these sections: administrative office, enclosed shed/workshop, take the following actions: The person discovering fire or smoke should activate the nearest fire alarm.	
office or enclosed	The person must make a short attempt to put out the fire using a fire extinguisher.	
shed	On hearing the alarm the rest of the staff personnel and any patrons in the building should	
	evacuate the building in accordance with the emergency evacuation procedure.	
	Should the fire occurs when the LPG Bottling Plant is closed with just the security on the premises, the following steps should be taken by the security officer:	
	Make a short attempt to put out the fire	
Firing occurring	Call the fire brigade from the telephone numbers displayed.	
outside working	Inform the LPG Bottling Plant Manager immediately or the person on the call out list.	
hours	If accessible, switch off the main electricity supply switch to the project site.	
	The LPG Bottling Plant Manager must proceed to the facility immediately to unlock doors	
	for the Fire Brigade Personnel to gain access upon their arrival at the premises.	
	Secure the facility and prevent any pilferage or theft of company's assets.	
Fire Due to LPG Leakage	The leakage of LPG is to be stopped either by closing the safety cap and subsequently use fire extinguisher on fire till dies down.	
LPG Leakage but no fire	T Identitied incation and try to gion the leak ag her citilation. Meanwhile any collect of idnition	
	Fire drills should be regularly carried out by the staff personnel. The following should apply during a fire drill:	
	Activate the fire siren;	
	Instructions must be clearly given and carefully executed;	
Fire Drills	A head count must be conducted and recorded;	
	No water should be applied until a commando is given by the instructor.	
	At the completion of the drill one long blast should signal 'All Clear'	
	Hoses must be drained and hung until dry, rolled and put away in their respective storage.	
	Any fire extinguisher used during the drilled should be refilled and replaced.	
	The fire system on the facility should be regularly checked and inspected as a preventative measure. In addition to periodic checks, the following should be carried out:	
Fire System check	If a fire pump is installed, it should checked weekly.	
	The fire hydrant outside the premises must be checked at least monthly	
Emergency Evacuation Plan	In the event that an alarm is sounded, all persons (employees and clients) within the facility should proceed as follows:	

Aspect	Procedure(s) /Actions Required/Management Measures		
	 Secure any critical work which in itself could result in a fire, injury or damage to the environment. Proceed quickly (walk not run) to the nearest emergency exit point. The Manager must ensure that all persons have been evacuated. Persons who are injured must be given First Aid while awaiting an ambulance to arrive. (Note that First Aid is only performed by personnel who are well trained) Employees who not members of the emergency response must proceed to the assemble point together with clients. A head count should be performed at the Assemble Point. Manager must ensure that emergency services are notified. 		
Vital Contact Numbers	Contact numbers for these service providers should be kept on hand at the facility: Engela Police Fire Brigade for Helao/Nafidi/Oshikango Fire Brigade for Oshakati Fire Brigade for Ongwediva Fire Brigade for Eenhana Ongenga Clinic Ambulance - Ongenga State Hospital Ambulance - Oshakati State Hospital		

3.3 Revision of the ERP

The ERP should revised at least six months after the LPG bottling plant has been successfully installed and commissioned to ascertain its applicability and where shortcomings are identified corrective measures should be taken to ensure that the ERP addresses potential risks.

ANNEXURE: C

A Public Consultation Process Report Prepared in Support of an Application for an Environmental Clearance Certificate (ECC) Required for the Installation, Operation, Maintenance and Decommissioning of an LPG Bottling Plant

Unit 4, Ongenga SME Park

Ongenga Settlement, Ohangwena Region

APP- 002052

Prepared for:

Edge-Makwenda Energy Trading (Pty) Ltd

Prepared by:



Project Name	:	A Liquefied Petroleum Gas Bottling Plant
Type of Project	:	LPG Bottling Plant for Retail Purposes
		W 11 A A
Project Location		Unit 4, Ongenga SME Park Ongenga Settlement
1 Tojost Location	•	Ohangwena Region
		Ministry of Mines & Energy
Competent Authority	:	No. 1 Aviation Road WINDHOEK
		WINDITOLK
ECC Application No.	:	APP- 002052
Date Report Prepared	:	September 2023
·		·
		Edge-Makwenda Energy Trading Pty Ltd Box 26230
		WINDHOEK
Project Promotor	:	Atten: Mr Slysken S Makando
		Cell: 081 140 6191
		Email:edgeenergy3@gmail.com
		Ekwao Consulting
		Polokwane Country Estate
EIA Consultant	:	Outapi Rural, OUTAPI
		Cell: 081 127 3027
		Email: ekwao@iway.na

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1. Introduction

Public Participation Process (PPP) is an integral part of the EIA process as outlined in Section of 27(1) (h) of the Environmental Management Act and Section 32 of Environmental Assessment Regulations. The screening notice provided by the Environmental Commissioner (APP-002052), the promoter has been asked to conduct a public consultation process for its envisaged project which entails the installation, commissioning, operational, maintenance and decommissioning.

The objectives of the PPP is to identify potential stakeholders and or interested and affected parties (IAPs) who may be affected/impacted by the envisaged project – the small scale LPG bottling plant to be operated from Unit 4 in the Ongenga SME Park.

Generally, the public participation process is a platform which affords an opportunity to the stakeholders and IAPs to express their views, comments and or to voice any concerns which they might have regarding the proposed project. the proposed development. Through the PPP such IAPs are invited to participate in the EIA process. In broader terms, the objectives of the public participation are, amongst others the following:

- To increase awareness and public confidence and in so doing to maximize benefits and minimize risks.
- To ensure transparence and accountability in decision-making and therefore to ensure that conflicts do not arises, since decisions are deemed to have been made through consensus.
- To secure approval from stakeholders which gives some form of assurance and a sense of partnership with the envisaged project and prevents unnecessary disputes and costs associated with litigations.

2. Project Announcement

The project and the EIA process were announced in the local newspapers on the dates as shown in **Table 1** below in line with the provisions of the Environmental Management Act (Act No. 7 of 2007) and Environmental Management Regulations (Regulation of 2012).

Table 1: Newspaper Adverts

TABLE 1: EIA NEWSPAPER ADVERTISEMENTS				
Date	Publication	Distribution	Language	Publication Frequency
08 - 14 Sept 2023	Confidénte	Nationwide	English	Weekly, Fri-Thu
15 - 21 Sept 2023	Confidénte	Nationwide	English	Weekly, Fri-Thu
08 Sept 2023	E-Villager	Nationwide	English	Daily, Mon to Fri
25 Sept 2023	E-Villager	Nationwide	English	Daily, Mon to Fri

Proof of newspaper advertisements are attached at the end of this report. Additionally, EIA notices/posts were prepared and printed on an A3 paper and placed at the entrance of Unit 4 as shown in **Figure 1.**

3. Background Information Document

A background information document (BID) on the proposed project was prepared and either emailed or hand delivered to statutory stakeholders and neighbouring residents as indicated below:

Table 2: BID Distribution

Stakeholders	Mode of Delivery
STATUTORY	
NIDA (landlord)	Emailed
Nampost	Hand delivered
Ongenga Settlement Office	Hand delivered
Ongenga Constituency Office	Hand delivered
OTHER IAPS	
English Private School – neighbouring resident	Hand delivered
Usave Grocery Store	Hand delivered
Tenants in Industrial Units 1, 2 & 3	Hand delivered

4. Comments Received

Comments were only received from the representative of the landlord (Mr Lot Helao) who asked for the EIA report to be made available to them.

No comments and or concerns were received from any IAPs or any contributions raised by anyone from the adverts placed in the newspapers and the notices placed at Unit 4.



Figure 1: EIA Notices Placed at Unit 4

Annexures:

Background Information Document

Proof of Newspaper Adverts

ENVIRONMENTAL IMPACT ASSESSMENT

For the Proposed **Installation, Operation** and **Maintenance** of a Liquefied Petroleum Gas (LPG) Bottling Plant at the Ongenga SME Park, Ongenga Settlement,

Ohangwena Region

Background Information Document

September 2023

INTRODUCTION

Edge-Makwenda Energy Trading (Pty) Ltd ('the promotor' or 'EMET', for short), a 100% owned and managed Namibian company, is planning to establish a small-scale liquefied petroleum gas (LPG) bottling plant. In terms of the Environmental Management Act (EMA) and EIA regulations, the establishment and operation of a LPG bottling plant is a listed activity for which an Environmental Clearance Certificate (ECC) is mandatory.

To this end, EET has appointed Ekwao Consulting (**Ekwao**) to handle its ECC authorisation process. The ECC will allow and permit the installation, operation and maintenance of the proposed LPG bottling plant. This will ensure that the facility is established and run in full compliance of the provisions of EMA.

LOCATION

EMET is planning to develop and to operate its LPG botting facility in Unit 4 which is one of the five industrial units comprising of Ongenga SME Park. The total footprint of the facility will be 465 m² made up of 315 square meters (m²) enclosed warehouse and 150 m² secured yard premises. The Ongenga SME Park was developed by Government under its 'Growth at Home' strategy and comprises of shops of different floor areas, industrial workshops and several trade stalls leased to vendors selling food items and other locally produced commodities. The Usave Grocery Store and Nampost are the anchor tenants. Ongenga English Private School is to the immediate south of the industrial units.

Ongenga is a peri-urban settlement about 45 km from Oshakati and 30 km from Oshikango. Access to is provided via D3609 – a good tarred road which links B1 to Outapi.



Figure 1: Project Location

THE LPG BOTTLING PLANT

The facility will consist of an aboveground LPG tank with a 10 m³ storage capacity. From the tank, LPG is conveyed via a pipeline to a refilling designated area located inside the warehouse. A limited number of filled gas cylinders are kept filled inside the warehouse and exchanged with empty cylinders from walk-in clients. This will ensure that a client does not have to wait for his/her cylinder to be refilled. All empty cylinders from clients are visually inspected for any cracks, dents, corrosive, cleanliness and functionality of the valve mechanism. LPG gas is delivered to the premises in bulk and the tank refilled when it reaches a certain level of emptiness.

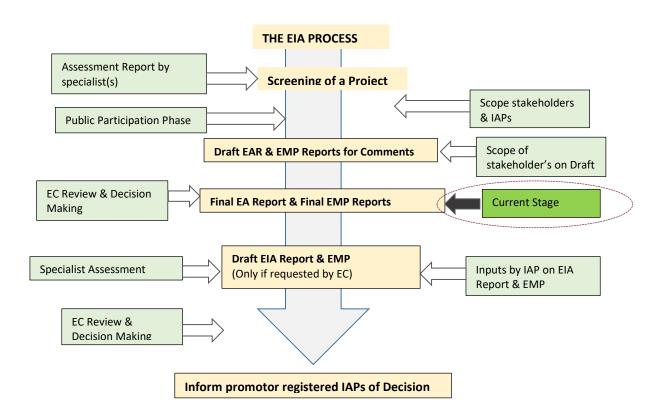
The EIA

PURPOSE OF THE BID

The BID is intended to provide information related to the proposed facility to interested or affected parties (IAPs) and to extend an invitation to such IAPs to take part in the EIA process being conducted, by providing inputs, comments and or issues on the proposed new fuel service station.

Generally, an EIA is a process which assesses and evaluates impacts that the planned facility will bring to bear on the biophysical and socio-economic environments. Where negative impacts are likely to ensue, mitigation measures are recommended to either eliminate, avoid or to reduce such impacts to acceptable levels. Where positive impacts are likely to ensue, mitigation measures are recommended to enhance the benefits.

The ECC is granted by conducting an EIA process which is schematically presented in the diagram below:



CONTACT DETAILS OF THE EIA CONSULTANT

Ekwao ConsultingCell: 081 418 31254350 Lommel StreetFax: 088 645 026OngwedivaEmail: ekwao@iway.na

Closing Date for inputs, comments or contributions **25 September 2023**

Consultant:

MUNICIPALITY OF HENTIES BAY



INTENTION TO ALIENATE PORTION 115 (SITUATED SOUTH DUNE) OF THE FARM OF HENTIESBAAI TOWNLANDS NO.133 TO MESSRS SCHMIDTCO PROPERTY DEVELOPERS

By virtue of Council Resolution **CO11/28/06/2023/06th/2023** and in terms of Section 63 (2)(b) of the Local Authorities Act, (Act 23 of 1992) as amended, read in conjunction with Section 30 (1)(t) of the Local Authorities Act 1992 (Act 23 of 1992) as amended, notice is hereby given that the Municipal Council of Hentiesbaai intends to alienate portion 115 of Hentiesbaai Town and Townlands No.133, measuring 25 Hectares (Equivalent to 250 000m²) at a cost of N\$ 10.00 p/m² amounting to a total purchase price of N\$ 2 500 000.00 (Two Million Five Hundred Thousand Namibian dollars only), by way of private treaty to Messrs Schmidtco Property Developers for Mixed Use Development.

Further take note that the locality and the layout plan of the property lies open for inspection during office hours at the offices of the Municipal Council situated at the corner of Jakkalsputz Road and Nickey lyambo Avenue.

Any person(s) having objection(s) to the intended alienation of the portion may lodge such objection(s) fully motivated to the undersigned, within fourteen (14) days after the second placement of the advert.

The Chief Executive Officer P O Box 61 Henties Bay

MUNICIPALITY OF HENTIES BAY NOTICE



INTENTION TO ALIENATE PORTION X OF REMINDER OF THE FARM HENTIESBAAI TOWNLANDS NO.133 MEASURING 8.7 HECTARES IN EXTENT TO MESSRS HENK BURGER VIDE PRIVATE TREATY NEGOTIATION

By virtue of Council Resolution CO10/28/06/2023/06th/2023 and in terms of Section 63 (2)(b) of the Local Authorities Act, (Act 23 of 1992) as amended, read in conjunction with Section 30 (1)(t) of the Local Authorities Act 1992 (Act 23 of 1992) as amended, notice is hereby given that the Municipal Council of Hentiesbaai intends to alienate Portion X of the Remainder of the Farm Hentiesbaai Townlands No.133 measuring in extent 8.7Hectares at a selling price of N\$ 435 000.00 (Four Hundred and Thirty-Five Thousand Namibian dollars) only, by way of private treaty negotiation to Messrs Henk Burger for the development of a recreational site.

Further take note that the locality and the layout plan of the property lies open for inspection during office hours at the offices of the Municipal Council situated at the corner of Jakkalsputz Road and Nickey lyambo Avenue.

Any person(s) having objection(s) to the intended alienation of such immovable property may lodge such objection(s) fully motivated to the undersigned, within fourteen (14) days after the second placement of the advert.

Enquiries: Ms. Bianca B. Hamutenya on 064 502027, E-mail: Property.Officer@hbaymun.com.na

The Chief Executive Officer P O Box 61 Henties Bay



Notice is hereby given that an application of an **Environmental Clearance Certificate (ECC)** will be made to the Environmental Commissioner in the Ministry of Environment Forestry and Tourism in terms of the Environmental Management Act (Act No. 7 of 2007) and related EIA regulations to permit the activity listed below:

PUBLIC NOTICE - ENVIRONMENTAL ASSESMENT AND PUBLIC

CONSULTATION PROCESS

Activity	Installation, Operation and Maintenance of a Liquified Petroleum Gas (LPG) Bottling Plant. LPG will be delivered to the bottling plant in bulk and stored in a 10 m ³ tank capacity from where refilling of cylinder gas bottles are made.	
Project Site	Ongenga SME Park, Ongenga Settelement, Ohangwena Region	
Proponent	Edge-Makwade Energy Trading (Pty) Ltd	
Intereted and Affected Parties (IAPs)	AIPs are hereby invited to register for the EIA and to submit written comments, objections and or concerns with respect to the proposed activity. A Background Information Document (BID) is available upon request on registration. No public meetings will be held.	
Consultation Period	The duration to receive written submissions starts from 11 th to 25 th September 2023	
EIA	Cell: 081 418 3125 Fax: 088 645 026	

PUBLIC NOTICE

Consulting

Notice is hereby given to all interested and Affected Parties (I & AP's) that an application will be made to the Environmental Commissioner for the Environmental Clearance in terms of the Environmental Management Act (No. 7 of 2007) and Environmental Impact Assessment Regulations (GN No. 30 of 6 February 2012) for the following intended activity:

Rezoning of Erven 4753 Rundu Extension 15, 5515. Rundu Extension 18 from "Residential" to "Business" with a bulk of 0.6.

Location: Rundu Town, Kavango East Region.

Proponent: Rundu Town Council

Environmental Consultants: Nghivelwa Planning Consultants

All I&APs are encouraged to register and raise concerns or provide comments and opinions with the consultant. All I&APs will be provided with a Background Information Document (BID) comprising of detailed information for the intended activity.

Should you wish to register as an I&AP and receive BID, please contact:

Applicant: Nghivelwa Planning Consultants, Email:

planning@nghivelwa.com.na

Tel: 085 3232 230



DEADLINE FOR COMMENTS: 7 OCTOBER 2023

PUBLIC NOTICE

Email: ekwao@iway.na

Notice is hereby given that Nghivelwa Planning Consultants (Town and Regional Planners) on behalf of the owners of Erf 4168, Schönlein Street, Windhoek, has applied to the Windhoek Municipal Council and the Urban and Regional Planning Board for the:

Rezoning of Erf 4168, Schönlein Street, Windhoek from "Residential" with a density of 1:900 to "Office" with a bulk of 0.4.

Erf 4168, is located in Schönlein Street, Windhoek and currently measure ±1256 m² in extent. The erf is currently zoned for "Residential" purposes. It is the intention of the owners to apply for the rezoning in order to allow for the consolidation with Erf 4169 and the construction of an office on the consolidated property.

Should this application be successful, the number of vehicles for which parking must be provided on-site will be in accordance with the Windhoek Zoning Scheme.

The locality plans of the Erf lie for inspection on the town planning notice board of the Windhoek Municipality: Customer Care Centre, Main Municipal Offices, Rev. Michael Scott Street, Windhoek and the Applicant: 141, Werner List Street, Windhoek.

Any person objecting to the proposed use of the land as set out above may lodge such objection together with the grounds thereof, with the Windhoek Municipality and with the applicant (Nghivelwa Planning Consultants) in writing within 14 days of the last publication of this notice. The last date for any objections is: 7 October 2023

Applicant: Nghivelwa Planning Consultants, P O Box 40900, Ausspannplatz

Email: planning@nghivelwa.com.na

Tel: 085 3232 230



NOTICE OF ENVIRONMENTAL ASSESSMENT AND PUBLIC PARTICIPATION PROCESS

Junior Baiano Industrial Consultants cc hereby gives notice to all potentially Interested and Affected Parties (I&APs) that an application wil be made to Environmental Commissioner in terms of the Environmental Management Act (No 7 of 2007) and the Environmental Impac Assessment Regulations (GN 30 of 6 February 2012) for the following activity:

Project Tittle: Proposed Operation of a chemical storage facility in Walvis Bay

Project Description: The operation of a Chemical and Minerals Storage Warehouse

Project Location: The proposed project site is located at Erf 2624 in Moses Garoeb Street, Walvis Bay, Erongo

Proponent: Atlantic Logistix Services

IAPs are invited to register with the consultant and give of the following:

PUBLIC MEETING Date: 15 September 2023 Venue: Atlantic Logistix Services Offices





Tel: +264 (0) 81 147 2029





Consent Use Notice

Please note that NAMLAND TOWN AND REGIONAL PLANNING & ENVIRONMENTAL MANAGEMENT CONSULTANTS, on behalf of the owner of Portion B (Number 134) Seeis Small holding cc, intends to apply to the Windhoek City Council for:

Consent to use Portion B (Number 134) for incineration services

Portion B has size of 54.7 ha and currently zoned small holding located in Khomas Region , 57 km outside of Windhoek. The area in which the portion B is located is predominantly small farm holding as illustrated in the locality plans. The Portion is 54.7 Hacters

The consent use will allow the owners to operate the incineration service on the property. Access to the erf will be obtained from the existing entrance. Parking will be provided in accordance with the requirements of the Windhoek City Planning Scheme

Note that the locality plan of the erf lies for inspection on the Town Planning Notice Board at the City of

Further take note that any person objecting to the proposed use of land set out above may lodge such objection, together with the grounds therefore, with the Town Council and with the applicant in writing within 14 days after the appearance of the last notice (final date for objections is Date 1 October 2023).

Applicant:

NamLand Town and Regional Planning & Environmental Management Consultants PO Box 98234 Windhoel

Contact details:0812343637/0812795499

Email:consultancy@namland.com





...DON'T BE THAT **BUSINESS WITHOUT A VOICE**

PUBLIC NOTICE - ENVIRONMENTAL ASSESMENT AND PUBLIC CONSULTATION PROCESS

Notice is hereby given that an application of an Environmental Clearance Certificate (ECC) will be made to the Environmental Commissioner in the Ministry of Environment Forestry and Tourism in terms of the Environmental Management Act (Act No. 7 of 2007) and related EIA regulations to permit the activity listed below:

Activity	Installation, Operation and Maintenance of a Liquified Petroleum Gas (LPG) Bottling Plant. LPG will be delivered to the bottling plant in bulk and stored in a 10 m ³ tank capacity from where refilling of cylinder gas bottles are made.		
Project Site	Ongenga SME Park, Ongenga Settelement, Ohangwena Region		
Proponent	Edge-Makwade Energy Trading (Pty) Ltd		
Intereted and Affected Parties (IAPs)	AIPs are hereby invited to register for the EIA and to submit written comments, objections and or concerns with respect to the proposed activity. A Background Information Document (BID) is available upon request on registration. No public meetings will be held.		
Consultation Period	The duration to receive written submissions starts from 11 th to 25 th September 2023		
EIA Consultant:	Cell: 081 418 3125 Fax: 088 645 026 Consulting Email: ekwao@iway.na		

NOTICE

Take notice that HARMONIC TOWN PLANNING CONSULTANTS CC. TOWN AND REGIONAL PLANNERS, on behalf of the owner of the respective erf, intends to apply to the Rehoboth Town Council and the Urban Regional Planning Board for:

- Rezoning of Erf Nr. Rehoboth G 153 from "Single Residential" with a density of 1:300 to "General Residential" with a density of 1:100; and
- Consent to commence with the proposed development while the rezoning is in progress.

Erf Rehoboth, G 153, measures ±936 m² in extent and is zoned "Single Residential" with a density of 1:300. In its current density, the owner can erect 3 dwelling units on the erf. The proposed rezoning to "General Residential" with a density of 1:100 will enable the erf owner to develop flats on the erf. Parking to the development will be provided in accordance with the requirements of the Rehoboth Zoning Scheme.

Further take notice that the plan of the Erf lies for inspection on the town planning notice board at the Rehoboth Town Council and at Harmonic Town Planning Offices, 76B Pasteur Street, Windhoek West.

Further take notice that any person objecting to the proposed use of the land as set out above may lodge such objection together with the grounds thereof, with the Rehoboth Town Council and with the Applicant in writing within 14 days of the last publication of this notice (final date for objections is Friday, 13 October 2023).







of Mines and Energy in the licence that was conditionally granted on 11 October 2022 and is pending an ECC fo

Document (BID) to the email below within a period of seven days from the date of advert to the email below, and information on a possible arrangement for a Public meeting.

All comments and concerns should be submitted to CENTRE FOR GEOSCIENCES RESEARCH

final granting.

CENTRE FOR GEOSCIENCES RESEARCH cc P.O. Box 31423 Pioneerspark

Tel: 061-307157/ Cell: 0856419511



we are members of the global village and what is being said today is perhaps said according to the current situation.

"We will not be able to say we are going to increase or decrease even if OPEC+ is going to cut. The situation is going to be determined by the development that continuously happens and we will do our normal price review according to what is happening in the world and what is coming from OPEC+," she added.

Asked on whether Namibia has been updated on any progress regarding Inga Dam, Shilunga stated

The National Integrated Resource Plan is also looking at the mix of resources that we have in the country where we can drive electricity

that the country has been excluded from some Inga discussions, however, they are looking forward to benefiting from Inga Dam in the future.

The construction of the billion-dollar dam was meant to avert the looming power deficit in the Southern African Development Community (SADC).

"We have started that discussion, at one point some long years ago we went to a certain level where we thought we would be able to benefit from Inga Dam but eventually we realised that some discussions have excluded us as Namibia and other countries that were also to benefit they also have not benefited up to now," Shilungasaid.

The Inga dams are located in western Democratic Republic of the Congo, 50 km upstream of the mouth of the Congo River, and 225 km (140 miles) south west of Kinshasa on the Congo River.

PUBLIC NOTICE - ENVIRONMENTAL ASSESMENT AND PUBLIC CONSULTATION PROCESS

Notice is hereby given that an application of an **Environmental Clearance Certificate (ECC)** will be made to the Environmental Commissioner in the Ministry of Environment Forestry and Tourism in terms of the Environmental Management Act (Act No. 7 of 2007) and related EIA regulations to permit the activity listed below:

Activity	Installation, Operation and Maintenance of a Liquified Petroleum Gas (LPG) Bottling Plant. LPG will be delivered to the bottling plant in bulk and stored in a 10 m³ tank capacity from where refilling of cylinder gas bottles are made.		
Project Site	Ongenga SME Park, Ongenga Settelement, Ohangwena Region		
Proponent	Edge-Makwade Energy Trading (Pty) Ltd		
Intereted and Affected Parties (IAPs)	AIPs are hereby invited to register for the EIA and to submit written comments, objections and or concerns with respect to the proposed activity. A Background Information Document (BID) is available upon request on registration. No public meetings will be held.		
Consultation Period	The duration to receive written submissions starts from 11 th to 25 th September 2023		
EIA Consultant:	Ekwao Consulting	Cell: 081 418 3125 Fax: 088 645 026 Email: <u>ekwao@iway.na</u>	

economic performance of the country, as youth employment depends on the availability of investments that are directed at boosting the economic performance of a country and the creation of employment.

A research paper, published by the National Planning Commission titled 'Namibia's Untapped Resource – Analysing Youth Unemployment' suggests that the government should develop job creation programmes targeted at the most vulnerable groups.

"Though youth unemployment in Namibia is high overall, it is particularly high among younger individuals, women and those residing in rural areas. Job creation programmes thus need to be targeted at these and other vulnerable groups," the report reads. It further states that the youth face many barriers when entering the labour market in Namibia.

"Lack of sufficient education, a weak entrepreneurship culture and poor financial literacy appear to be some barriers to entry," it further reads.

At the same conference in Gaborone, the Manager for Employment Policy and Analysis Programme from the International Training Centre Manager of the Employment Policy and Analysis Programme (EPAP) of the ITC-ILO, Dr Bernd Mueller, said there was insufficient job growth to solve the region's employment challenges.

He singled out youth unemployment and working poverty as two crucial challenges not only in the SADC region but in Africa. Muller said that National Employment Policies (NEPs) were insufficient to address these issues but a need for an integrated approach for pro-employment growth was needed.

"We need a shift in direction," he said. He said NEPs were important but implementation across governments was the real challenge. Therefore, he said, meaningful mainstreaming of employment in national development frameworks and economic policy was crucial. He advised governments to include employment targets in national budgets.

PUBLIC NOTICE - ENVIRONMENTAL ASSESMENTS AND PUBLIC CONSULTATION PROCESS

Notice is hereby given that an **Environmental Scoping and Impact Assessment** (ESIA) and **Public Consultation Process** (PCP) are being conducted in terms of the Environmental Management Act (Act No. 7 of 2007) and related EIA regulations for the activity listed below:

On completion of the aforesaid ESIA and PCP, a formal application will be submitted to the Office of the Environmental Commissioner for consideration to grant an **Environmental Clearance Certificate** (ECC) allowing the commencement of the listed activity.

Activity	The upgrading of tourist roads to low-volume seals roads in Etosha East National Park (from Okaukuejo to King Nehale entrance gate including the Halali de-tours and via Namutoni Resort. Total length of roads to be upgraded is 214 km.		
Proponent	Ministry of Environment Forestry and Toruism		
Consultant	Tulipamwe Consulting Engineers (Pty) Ltd		
Intereted and Affected Parties (IAPs)	AIPs are hereby invited to register for the EIA and to submit written comments, objections and or concerns with respect to the envisaged activity. A Background Information Document (BID) is available upon request on registration. No public meetings will be held.		
Consultation Period	The duration to receive written submissions from IAPs starts from 28 August 2023 to 22 September 2023		
EIA Consultant:		Cell: 081 127 3027	
	Ekwao	Fax: 088 645 026	
	Consulting	Email: ekwao@iway.na	
	Co. Iou. iii	(Joel Shafashike)	