

Licence Number: PPL.sf.F1/155/1/2013

LICENCE FOR THE CONSTRUCTION OF A PETROLEUM STORAGE FACILITY

This licence is issued by the National Energy Regulator, hereinafter referred to as "the Energy Regulator", in terms of the Petroleum Pipelines Act, 2003 (Act No. 60 of 2003).

This licence is issued to

Avedia Energy (Pty) Ltd
(Company Registration No: 2003/023054/07)

hereinafter referred to as "the Licensee".

This licence is only for the purpose of construction of a petroleum storage facility located at:

Portion 13 of farm 127 Yzervarkensrug, Saldanha Bay, Western Cape

The construction of the petroleum facility permitted under this licence is subject to the terms and conditions as contained in this licence and/or amendments to these conditions as imposed by the Energy Regulator.

Issued at Pretoria on this **1st day of July 2014**.



CHIEF EXECUTIVE OFFICER
NATIONAL ENERGY REGULATOR



LICENCE FOR THE CONSTRUCTION OF A PETROLEUM STORAGE FACILITY

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DEFINITIONS

In these licence conditions any word or expression to which a meaning has been assigned in the Act shall have the meaning so assigned, unless the context indicates otherwise:

“**Act**” means the Petroleum Pipelines Act, 2003 (Act No. 60 of 2003) and includes Regulations;

“**authorised person**” means authorised person as defined in the Rules;

“**commencement date**” means the date contemplated in condition 2.

“**IEC**” means International Electrotechnical Commission

“**licensed activity**” means the activity contemplated in condition 1 of these conditions;

“**Regulations**” means Regulations made in terms of sections 33(1) and 33(2) of the Act;

“**Rules**” means Rules made by Energy Regulator in terms of section 33(3) of the Act; and

“**LPG**” means liquefied Petroleum Gas per product specification LPG mixture, Commercial Propane, Commercial Butane in accordance with **SANS** 1774:2007.

ACRONYMS/ABBREVIATIONS

“**API**” means American Petroleum Institute

“**AMSE**” means American Society of Mechanical Engineers

“**IEC**” means International Electrotechnical Commission.

“**m³/hr**” means cubic metres per hour

“**m**” means meters

“**m³**” means cubic meters

“**SANS**” means South African National Standards

CHAPTER ONE: LICENSED ACTIVITY

1. Licensed Activity

1.1 The Energy Regulator issues **Avedia Energy (Pty) Ltd** a licence to construct a petroleum storage facility located at Portion 13 of farm Yzervarkensrug, Saldanha Bay, Western Cape, as follows:

(a) a petroleum storage facility consisting of:

- (i) Sixteen (16) horizontal, pressurized, Liquefied Petroleum Gas (LPG) tanks with design capacity of 500m³ each and tank identity numbers from 01 to 16 and further detailed in **Annexure B-1**; and
- (ii) auxiliary infrastructure and equipment associated with the operation of the tanks including loading gantries, interconnecting pipelines, pumps, fire fighting equipment, and valve control stations.

hereinafter referred to as “**the facility**”. The facility will connect to the Avedia Energy pipeline (Licence number PPL.p.F1/155/2/2013) which runs from the Sunrise Energy interconnection point (Licence number PPL.sf.F3/88/2009) to the Avedia Energy Storage facility.

1.2 The licence is issued to the licensee for the construction of a petroleum storage facility contemplated in paragraph 1.1 for the storage of and handling of LPG only.

1.3 The location and overall site layout of the storage facility is shown in **Annexure A: Overall Site Layout**. The GPS coordinates for the storage facility are: 32°00'59.24" South and 18°00'18.00" East.

1.4 The location of the storage facility and the pipeline route and proposed interconnection point are shown in the Avedia Energy pipeline licence (Licence number PPL.p.F1/155/2/2013).

1.5 The details of the facility to be constructed are provided in **Annexure B: Proposed Storage Facility Details**.

2. Commencement and Duration of Licence

2.1 This licence commences on the date of issue reflected on the licence certificate.

2.2 This licence is valid for a period of 25 (twenty-five) years from the commencement date.

2.3 The Licensee may, in accordance with the Act and the Rules, apply for an amendment or renewal of the licence.

CHAPTER TWO: GENERAL CONDITIONS

3. General Conditions of Licence

Sections 20(1) (a), (b), (c), (d), (e), (j), (n), (o), (p), (t), (u), (v), (w), (aa) and (bb) of the Act are conditions of this licence.

4. Compliance with Conditions of Licence

The Licensee must comply with all conditions of this licence.

5. Compliance with Legislation, Codes and Standards

5.1. The Licensee must comply with all applicable legislation, codes and standards, including those listed in **Annexure C: Legislation, Codes and Standards**.

6. Amendment of Licence

- 6.1. This licence may only be amended in accordance with the Act and the Rules.
- 6.2. Energy Regulator may temporarily change these licence conditions in an emergency.

7. Revocation of Licence

- 7.1. This licence may only be revoked in accordance with the Act and the Rules.
- 7.2. Should the licensee fail to commence construction of the facility within the time period contemplated in condition 12.1, the licensee must within 15 calendar days of the elapse of that time period, apply to Energy Regulator for the revocation of this licence.

8. Changes in Details of the Licensee

- 8.1. The Licensee must, within 30 (thirty) days of changes in its control as contemplated in section 12(2) of the Competition Act, 1998 (Act No. 89 of 1998), notify Energy Regulator of such changes.
- 8.2. The Licensee must, within 14 (fourteen) days of any change in its registered name, operating or trading name, registered address or other contact details, notify Energy Regulator of such a change.

9. Changes to the Facilities

- 9.1. When approached by interested parties, the Licensee must negotiate for changes in the capacity of the facility to be constructed. The cost of such changes must be shared equitably between the Licensee and the party requesting the change.
- 9.2. Any changes to the facility to be constructed that, in terms of the Act, may require an amendment or revocation of this licence, or a new licence, must not be effected until Energy Regulator has amended or revoked this licence or issued a new licence.
- 9.3. Changes to the facility must be made in accordance with applicable legislation, codes and standards including those listed in **Annexure C: Legislation, Codes and Standards**.

10. Interconnections

- 10.1. The Licensee must allow interconnections with facilities of other licensees, as long as the interconnection is technically feasible and the person requesting the interconnection bears the increased costs occasioned thereby.
- 10.2. Any changes to the facilities to be constructed as a result of an interconnection that, in terms of the Act, may require an amendment or revocation of this licence, or a new licence, must not be effected until the

Energy Regulator has amended or revoked this licence or issued a new licence as the case may be.

- 10.3. Changes to the facilities as a result of an interconnection must be made in accordance with applicable legislation, codes and standards including those listed in **Annexure C: Legislation, Codes and Standards**.

11. Correspondence with the Energy Regulator

- 11.1. All official communication with Energy Regulator must be in writing and must be addressed to the Chief Executive Officer and copied to the Regulator Member Primarily Responsible for Petroleum Pipelines Regulation.
- 11.2. The Licensee must, in all correspondence with Energy Regulator, quote the licence number as it appears on the licence certificate.

CHAPTER THREE: SPECIFIC CONDITIONS

12. Commencement and Completion of Construction

- 12.1. Construction of the facility must commence within twelve (12) calendar months from the date of issue of this licence.
- 12.2. The Licensee must prior to the commencement of the construction of the facility:
 - (a) provide Energy Regulator with the final, revised engineering design drawings for the facility, if any changes took place since the licence application was submitted; and
 - (b) notify Energy Regulator of the date on which construction will commence and provide the revised project schedule, if applicable.
- 12.3. The construction of the facility must be completed and ready for operation within thirty (30) months of the commencement of this licence.

13. Information for Monitoring Purposes

- 13.1. The Licensee must provide Energy Regulator with progress reports after every six (6) calendar months from the date of issue of this licence.
- 13.2. The reports contemplated in condition 13.1 above, must be submitted within seven (7) days from the last day of every six (6) calendar month period.
- 13.3. The first progress report must be submitted within seven (7) days of the last day of the six (6) calendar months calculated from the date of issue of this licence.
- 13.4. The reports contemplated in condition 13.1 above must provide updates on:

- (a) progress towards award of all Engineering Procurement and Construction contracts;
- (b) any negotiations contemplated in sections 20(1)(n) and 20(1)(o) of the Act;
- (c) progress in the construction of the facility compared to the project plan schedule (where there have been changes to the project schedule, the updated project plan must be submitted with the progress report); and
- (d) proof of compliance with the conditions of the environmental authorisation issued by the relevant authority; and
- (e) any other related matter.

13.5. Upon completion of construction of the facility, the Licensee must:

- (a) provide Energy Regulator with:
 - (i) the as-built maps, drawings, diagrams and schedules, identifying any deviations and differences from **Annexures A, B, and C**, and must provide reasons for such deviations and differences;
 - (ii) the final audited costs of construction of the facility; and
 - (iii) a certificate or confirmation from a competent authority certifying or confirming that the facility is fit for operation.

14. Regulatory Reporting

The Licensee must comply with volume 1 and volume 4 of Energy Regulator's Regulatory Reporting Manuals published under GN 1118 in *Government Gazette* No. 31392 of 10 September 2008, which may be amended by Energy Regulator from time to time.

15. Entry, Inspection and Gathering of Information

The Licensee must, in a manner prescribed by the Rules, permit any authorised person to enter and inspect any property on which the licensed activity is taking place.

16. Provision of Information to Energy Regulator

The Licensee must on request from Energy Regulator, provide all other information Energy Regulator may require to perform its functions under the Act.

17. Ancillary Obligations

The Licensee is responsible for compliance with these licence conditions regarding any work on the facility or services that are the subject of this licence and/or that are subcontracted to other parties.

18. Whole Licence

This licence constitutes the entire licence and supersedes any prior understandings and agreements between the Licensee and Energy Regulator.

ANNEXURES:

ANNEXURE A: SITE-LAYOUT DRAWING

ANNEXURE B: DETAILS OF FACILITY TO BE CONSTRUCTED

ANNEXURE C: LEGISLATION, CODES AND STANDARDS

ANNEXURE A: SITE-LAYOUT DRAWING

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ANNEXURE B: DETAILS OF FACILITY TO BE CONSTRUCTED

The details relating to the storage tanks to be constructed are:

Annexure B-1: Tank Allocation and Capacities

Phase	Tank Identification Numbers	Number of Tanks	Tank Type	Product Type	Design Capacity
Phase One	01 to 16	16	Horizontal pressurized bullet tanks, semi-mounded	LPG	500m ³ each
Combined:		16			8,000m³ (Note 1)

Notes:

1. Based on density conversion factor of 0.55kg/L @10°C \cong 4400 metric tonnes.
2. Tank design: 5.6m internal diameter x 22.22m inside body length; operational capacity \cong 450m³.

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ANNEXURE C: Legislation, Codes and Standards

The Licensee must comply with all relevant codes and standards including the following submitted in its licence application:

1. The applicant included a list of applicable regulations, operating and technical standards, codes and specifications, including:
 - Occupational Health and Safety Act, 1993 (Act No. 85 of 1993)
 - The National Environmental Management Act, 1998 (Act No. 107 of 1998)
 - The Environment Conservation Act, 1989 (Act No.73 of 1989)
 - The Hazardous Substances Act, 1973 (Act No. 15 of 1973)
 - The Mine Health and Safety Act, 1996 (Act No. 29 of 1996)
 - The National Health Act, 2003 (Act No. 61 of 2003)
 - The Hazardous Chemical Substance Regulations, 1995(R1179 of 1995)
 - The Fire Brigade Services Act, 1987 (Act No. 99 of 1987)
 - The Disaster Management Act, 2002 (Act No. 57 of 2002)
 - ASME VIII Boiler and Pressure Vessel Code (BPVC), Section VIII, Division 2
 - South African National Standards (SANS) 10087: 2008 Part 3 Edition 4
 - SANS 10089 – Part 1: Storage and Distribution of petroleum products in above-ground bulk installations
 - SANS 10089 – Part 2: Electrical installations in the distribution and marketing sector
 - SANS 10089 – Part 3: The installation of underground storage tanks, pumps/dispensers and pipework at service stations and consumer installations.
 - SANS 10086 – 1: The installation, inspection and maintenance of equipment used in explosive atmospheres. Part 1: Installations including surface installations of mines.
 - National Fire Protection Association (NFPA) 58: LP-Gas Code latest edition and addendums)
 - SANS 10108: 2005 : The classification of hazardous locations and the selection of apparatus for use in such locations
 - SANS 10142: 2012 : The wiring of premises
 - SANS 10087 Part 3 Latest Edition: The handling, storage, distribution and domestic, commercial and industrial installations Part 3: Liquefied petroleum gas

installations involving storage vessels of individual water capacity exceeding 500L.

- SANS 10227: Criteria for the operation of inspections authorities performing inspection in terms of the pressure equipment.
- SANS 17020/ISO/IEC 17020: General criteria for the operation of various types of bodies performing inspections.
- SANS 17021/ISO/IEC 17021: Conformity assessment – requirements for bodies providing audit and certification of management systems.
- NFPA 58: Liquefied Petroleum Gas (LPG) Code latest edition and addendums.
- NFPA 70E: Electrical Code latest edition and addendums – Standard for Electrical Safety in the workplace.
- American Petroleum Institute (API) Standard 2510 Eighth Edition: Design and Construction of LPG Installations.
- API Standard 2510A (R2010): Fire Protection Considerations for the Design and Operation of the LPG Storage Facilities.
- United Kingdom LPG Code of Practice 1 Part 4: Bulk storage at fixed installations: Buried/ Mounded LPG Gas storage vessels.
- The Engineering Equipment and Materials Users' Association (EEMUA), Publication No. 190:2000 titled "Guide for the Design, Construction and use of Mounded Horizontal Cylindrical Steel Vessels for pressurised storage of LPG at Ambient temperatures".
- American Society of Mechanical Engineers (ASME) B31.4: Pipeline Transportation Systems for liquid Hydrocarbons and Other Liquids.
- ASME B31.3-2008: Process Piping guide.
- ASME B31.8: Gas Transmission and Distribution Piping Systems.
- API 570 Third Edition: Piping Inspection Code: In-Service Inspection, Rating, Repair, and Alteration of Piping Systems.
- API 1104: Standard for Welding of Pipelines and Related Facilities.
- API 1160: Managing System Integrity for Hazardous Liquid Pipelines.
- IEC 61511: Functional safety – Safety instrumented systems for the process sector.
- IEC 61508: Functional Safety of electrical/electronic/programmable electronic safety-related systems.

Licence Number PPL.sf.F1/155/1/2013/AM1

Licence for the construction of a petroleum storage facility issued to

Avedia Energy (Pty) Ltd

(Company Registration Number: 2003/023054/07)

Amendment No.1

As approved by the Energy Regulator on: **13 September 2017**

Effective date of amendment: **13 September 2017**

Amendments

1. Licence condition 12.3 is replaced by the following:

- a) The construction of two thousand metric tonnes of the facility must be complete and ready for operation within thirty six (36) months from the date of commencement of this licence and the combined four thousand metric tonnes within fifty four (54) months from the commencement of this licence.

2. Annexure D: Proposed Execution Schedule is deleted and replaced by a new Annexure D: Proposed Execution Schedule AM1 attached hereto.

Signed at Pretoria on the 29th day of SEPTEMBER 2017.



Mr Chris Forlee

Chief Executive Officer

ANNEXURE D: PROPOSED EXECUTION SCHEDULE AM1

Table 1: Completion of construction dates

Key project milestone	Completion date
Construction of two thousand metric tonnes of the facility must be complete and ready for operation within <u>thirty six (36)</u> months from the date of commencement of this licence	30 June 2017
Construction of combined four thousand metric tonnes must be complete and ready for operation within <u>fifty four (54)</u> months from the commencement of this licence.	31 December 2018