

**DEPARTMENT OF TRADE AND INDUSTRY  
DEPARTEMENT VAN HANDEL EN NYWERHEID**

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**COMPETITION COMMISSION OF SOUTH AFRICA**

**PUBLICATION OF THE LIQUEFIED PETROLEUM GAS (LPG) TERMS OF REFERENCE  
IN TERMS OF SECTION 43B OF THE COMPETITION ACT 89 of 1998 (as amended)**

(Market Inquiry Commencement Date: 20 June 2014)

Notice is hereby given that the Competition Commission ("Commission") will conduct a market inquiry into the LPG sector in terms of Chapter 4A of the Competition Act, 89 of 1998 (as amended) ("Competition Act"). The terms of reference for the market inquiry are set out below.

Members of the public are invited to provide information to the inquiry in accordance with guidelines for participation to be determined by the Commission. These guidelines will be made available on the Commission's website.

Copies of the terms of reference are also available at the Competition Commission offices at the DTI Campus, Mulayo (Block C), 77 Meintjies Street, Sunnyside, Pretoria, and on the Commission's website at [www.compcom.co.za](http://www.compcom.co.za).



# ***competition*commission** ***south africa***

## **LIQUID PETROLEUM GAS (LPG) MARKET INQUIRY**

### **TERMS OF REFERENCE**

**June 2014**

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## 1. LEGAL BASIS FOR THE INQUIRY

The Competition Commission (“the Commission”) will conduct a market inquiry into the supply and distribution of Liquid Petroleum Gas (“LPG”) in South Africa in terms of Chapter 4A<sup>1</sup> of the Competition Act, 89 of 1998 (as amended) (“the Act”) and in keeping with the purpose and functions of the Commission set out in section 2 and section 21 of the Act respectively. Section 21 of the Act calls on the Commission to, *inter alia*, “implement measures to increase market transparency” and “advise, and receive advice from, any regulatory authority”. In order to fulfil these functions, and in line with the purpose of the Act, Chapter 4A of the Act enables the Commission to conduct market inquiries in respect of the “general state of competition in a market for particular goods or services, without necessarily referring to the conduct or activities of any particular named firm”.<sup>2</sup> A market inquiry is thus a general investigation into the state, nature and form of competition in a market, rather than a narrow investigation of specific conduct by any particular firm.

The Commission is initiating an inquiry into the LPG sector because it has reason to believe that there are features of the sector that prevent, distort or restrict competition. The Commission further believes that conducting this inquiry will assist in understanding how it may promote competition in the LPG sector, in furtherance of the purpose of the Act. One of the prerequisites to commence a market inquiry is that the Commission must develop and publish Terms of Reference (“ToR”) for the market inquiry. These ToR must include, “at a minimum, a statement of the scope of the inquiry and the time within which it is expected to be completed. In accordance with these provisions, this ToR sets out the scope of the market inquiry, as well as the expected timelines for the inquiry.

Although the ToR delimits the scope of the market inquiry as currently envisaged, additional and related matters not identified herein may arise during the conduct of the inquiry. If the Commission believes that the ToR should be amended in any way, either through the addition of new matters or exclusion of matters currently identified herein, the ToR may be amended in terms of section 43B (5) of the Act.

<sup>1</sup> Chapter 4A of the Act, which introduces the powers to conduct market inquiries came into effect on 01 April 2013

<sup>2</sup> According to section 43B (1)(i) of the Act, the Commission may initiate a market inquiry if it has reason to believe that any feature or combination of features of a market for any goods and services prevents, distorts or restricts competition within the market.

## 2. PRODUCT OVERVIEW

LPG is a liquefied and mixed gaseous hydrocarbon<sup>3</sup>. Although there are many variations of LPG, it is primarily made up of propane (60%) and butane (40%)<sup>4</sup>, which are compressed into liquid form for ease of transport, storage and handling. LPG is produced as part of a chemical process either as a by-product of the refinery process or it can be extracted “from oil or ‘wet’ natural gas streams as they emerge from the ground.”<sup>5</sup> It can also be produced by blending the two ingredients together. It is stored in tanks, mainly in liquid form and transported by road tanker trucks or in cylinders. LPG is used in many applications, however, the basic product is homogenous in the sense that the physical features and the quality of the product supplied by each supplier is the same.

LPG is primarily used as a thermal fuel and is consumed by industrial, commercial and household consumers. It burns cleanly, releasing very few sulphur emissions, and posing no ground or water pollution hazards. There are over a thousand applications of LPG particularly in commercial and industrial businesses. In particular, LPG is used in the following industries:

- Industrial customers: for heating purposes where a readily controlled temperature is needed, i.e. motor vehicle paint shops or as fuel for fork lift trucks within warehouses etc.
- Commercial: This includes, for example, a shopping centre with a number of restaurants which may have one bulk tank with LPG reticulated to individual restaurants/stores.
- Households: LPG is mainly used by households for heating and cooking

There are various possible substitutes for LPG depending on the intended end use; these include natural gas, electricity, biomass (wood), fossil fuel (coal) and solar equipment<sup>6</sup>. LPG generally differentiates itself from other energy sources on the basis of portability, convenience, low sulphur content, controllability and its clean burning nature. The confines

<sup>3</sup> Atoms of hydrogen and carbon combine to form a hydrocarbon. This information has been obtained from [www.afrox.co.za](http://www.afrox.co.za) on 4 February 2013

<sup>4</sup> See World LP Gas Association (WLPGA) website at: <http://www.worldlpgas.com/>

<sup>5</sup> Discussion document on the Review of the Maximum Refinery Gate Price of Liquid Petroleum Gas. Government Gazette, Notice 886 of 2012. Dated 24 October 2012

<sup>6</sup> This information is detailed in the Tribunal decision for the merger between Engen LTD, Sasol LTD and Petronas International Corporation LTD). Competition Tribunal Case Number: 101/LM/Dec04

of the market will become clearer during and after the market inquiry however the Tribunal has previously accepted a distinct market for LPG separate from other sources of energy<sup>7</sup>

### 3. THE SOUTH AFRICAN LPG SECTOR

Approximately 300 000 tons of LPG is manufactured and sold in South Africa annually generating a turnover of about R1.5 billion. The sector is however still characterised by limited supply with imports supplementing the domestic supply. Most of the LPG produced in South Africa is consumed by industrial users such as manufacturing plants and commercial users such as shopping centres with only marginal quantities consumed by households. Only about 3% of households in South Africa use LPG as their main energy source for cooking.<sup>8</sup> The wholesaling of LPG is relatively capital intensive and requires investment in bulk transporters tankers, bulk storage facilities, cylinder filling plant, cylinders, cylinder delivery vehicles and installation on customer's premises<sup>9</sup>.

The LPG sector is highly regulated mainly to ensure the safety of both suppliers and end-users as the gas is hazardous. The Occupational and Health and Safety Act (No. 85 of 1993) and other fire safety regulations and municipal by-laws have made provisions which ensure that the safety component of LPG receives priority. The Department of Energy ("DoE") also sets strict regulations which ensure that infrastructure used to import and transport imported LPG meets the safety requirements of the country.

In addition to safety regulation, the price of LPG is also regulated at certain levels of the value chain in terms of the Petroleum Products Act. The DoE regulates the Maximum Refinery Gate Price of LPG ("MRGP") which is the price at which refineries sell LPG. This is done to ensure that LPG is priced in such a way that is aligned to strategic thrust of the DoE to strive for security of energy supply through diversity of energy supply including LPG. The MRGP is also designed to support the importation of LPG.<sup>10</sup> The biggest single factor that affects the price of LPG is the price of crude oil. The volatility of the crude oil price causes

<sup>7</sup> This information has been obtained from a final report in the merger between Sasol Oil (Pty) Ltd and Exel Petroleum (Pty) Ltd (Competition Tribunal case number 57/LM/Oct03). Also see the small small merger between Afrox and the LPG and Industrial Gas Distribution Business of MR Gas CC (Competition Commission Case Number: 2003Nov710)

<sup>8</sup> Department of Energy, (2013), Transformation of the Gas Sector. Presentation by Chief Director: Hydrocarbons Policy dated 13 August 2013

<sup>9</sup> This information has been obtained from [www.parallaxonline.net](http://www.parallaxonline.net) on 7 February 2013

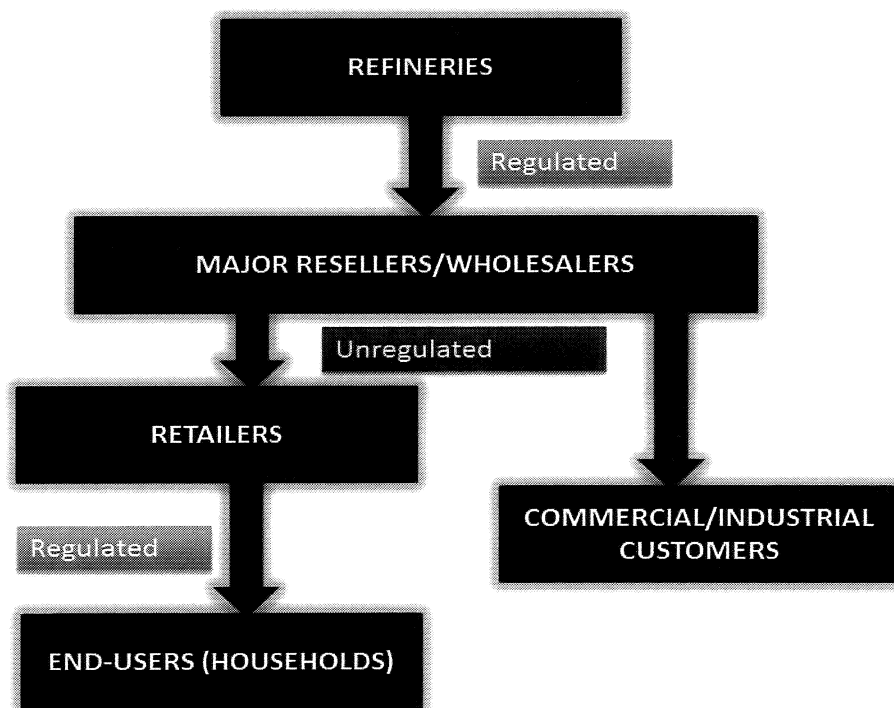
<sup>10</sup> Discussion document on the Review of the Maximum Refinery Gate Price of Liquid Petroleum Gas. Government Gazette, Notice 886 of 2012. Dated 24 October 2012

constant fluctuations in the price of LPG<sup>11</sup>. The LPG industry faces shortages from time to time, mainly in the winter months, largely due to unplanned shutdowns of refineries, late start-up after planned maintenance and limited storage facilities. Notwithstanding the shortages, importing is challenging as import facilities are limited and there are suggestions that imports are uneconomic at the MRGP.

The storage of LPG is also licensed and regulated by the National Energy Regulator of South Africa ("NERSA"). NERSA regulates LPG marine loading facilities, pipelines and storage facilities when the LPG is in liquid form. The Commission understands that the Government strategy has been to consolidate petroleum and petroleum product regulation under a single Act/regulator. This aspect will be interrogated further in the market inquiry.

The LPG value chain includes refineries, distributors/resellers, retailers and other stockists. The diagram below shows the different levels of the value chain before they are discussed thereafter:

**Figure 1: LPG Value Chain**



### 3.1. The Refineries

<sup>11</sup> Department of Energy, (2013), Transformation of the Gas Sector. Presentation by Chief Director: Hydrocarbons Policy dated 13 August 2013

There are six refineries in South Africa involved in the production and supply of LPG. The refineries are generally dispersed across the country and are owned by the major oil companies. As noted above, LPG is regulated at this level of the value chain by DoE which sets the MRGP. The Commission understands that the refineries allocate a certain proportion of their total LPG supply to wholesalers; this may have an impact on competitive dynamics in the downstream wholesale market. The Commission has identified the following refineries in South Africa:

- Sapref (Durban)
- Sasol's Synfuels (CTL<sup>12</sup>) (Secunda)
- PetroSA's Synfuels (GLT<sup>13</sup>) (Mossel Bay)
- Natref (Sasolburg)
- Enref (Durban)
- Chevref (Cape Town)

LPG is also imported into South Africa via three small import facilities. Afrox imports through a facility owned by *Island View storage* located in Richard's Bay which has a 3500 ton working capacity. Easigas imports through facilities with a maximum holding capacity of 1600 tonnes in Port Elizabeth owned by Shell. There is also an import facility in Durban with a maximum holding capacity of 1000 tons owned by Sapref. The import facility owned by BP SA located in East London has been mothballed however there are plans to develop an import facility in Saldanha Bay<sup>14</sup>.

### 3.2. Resellers/Distributors

Major Resellers (MR's), according to the Petroleum Products Act 1977 ("PPA") are firms that play a distribution role for bulk gas, either distributing it in bulk or repackaging LPG to better suit customer demands. The LPG market in South Africa is primarily serviced by four large MR's, namely Afrox, Easigas, BPSA, and Total Gas though there are other small players in the market. There other smaller players at this level of the LPG value chain including Reatile Gas, Sol Gas, KayaGas etc. BP SA and Enref, as of August 2013, were the only firms which are vertically integrated in the LPG supply chain, being involved in both manufacturing and distributing.

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<sup>12</sup> Coal-to-Liquid

<sup>13</sup> Gas-to-Liquid

<sup>14</sup> Discussion document on the Review of the Maximum Refinery Gate Price of Liquid Petroleum Gas. Government Gazette, Notice 886 of 2012. Dated 24 October 2012



Bulk LPG is purchased by the MR's, either from the oil refineries or imports. The gas is then transported either by rail or road to three possible destinations, namely:

- Directly to industrial and commercial end-user. These customers would generally store the LPG in bulk storage tanks provided by the MR on their premises. The supply to commercial entities often involves the reticulation of LPG to multiple end-users through a system of pipes connected to one or more storage tanks. Generally, the MR would also provide other equipment such as vaporizers, fire-fighting equipment and gas meters. .
- The MR's storage facilities and/or cylinder filling plants located in different parts of the country. The primary use of LPG supplied to these facilities would be to fill into cylinders at an adjacent filling plant owned by the MR. The cylinders are then supplied to commercial customers and end-users in LPG cylinders. Alternatively the LPG is supplied by the MR from the storage facility to bulk LPG industrial and commercial end-users such as shopping centres.
- LPG is stored in equipment supplied by the MR at the premises of the retailer who then fill the LPG into gas cylinders. All equipment, including filling platforms, cylinder filling scales, fire extinguishing equipment and ancillary equipment required to fill the gas cylinders is provided by the MR. LPG cylinders are then sold off to individual end-users and private households.

The Commission also understands that there are firms which trade at this level of the market which are not 'conventional' wholesalers of LPG. These firms, referred to as 'brokers', receive an allocation of LPG from the refineries and on-sell this (the allocation) to the wholesalers. These firms therefore do not participate actively in the wholesaling of LPG and may not even have the necessary equipment but rather play the role of a middleman between refineries and wholesalers in instances where they have managed to secure allocation. Due to the shortages in LPG supply, these firms may have an impact on competitive dynamics at the wholesale level of the market. This impact will be explored during the market inquiry.

### **3.3. Retailers**

LPG is sold at the retail level in cylinders mainly used by household customers. This level of the market is largely fragmented with LPG being sold from a variety of outlets; these include:

filling station, grocery supermarkets and hardware stores. The Commission has provisionally identified the following dynamics at this level of the value chain:

- LPG is supplied in branded cylinders by the resellers to retailers who on-sell to end-users.
- LPG retailers are usually contracted and branded to a particular producer or wholesaler who owns storage and filling equipment. This is particularly the case for filling stations affiliated with the vertically integrated refineries.
- LPG usually yields a small portion of the turnover for most of these outlets and has small margins because the price is regulated.
- Transportation and storage costs in the supply chain result in higher prices to consumers however the small size of the market has not warranted larger-scale infrastructural investment for importation or local optimisation and distribution of bulk LPG

The demand for LPG in South Africa seems to be growing as more end-users diversify their energy mix in response to, amongst others; the power shortfalls and increasing electricity price<sup>15</sup>. LPG has been identified as an alternative energy carrier for the provision of quick and effective solutions to energy requirements. This has made it increasingly important for regulators not only to ensure that there is adequate supply to meet the growing demand, but also that there is a growing need to ensure that this sector is adequately managed and that the issues pertaining to safety regulations, accessibility, price regulations and competitiveness are prioritised.

#### **4. RATIONALE FOR THE MARKET INQUIRY**

##### **4.1. Structural features of the market**

LPG is manufactured by the oil companies in refineries as a by-product of the process of producing fuel. There are currently 6 refineries in South Africa, however only 2 of these firms are vertically integrated into the market for distribution of LPG – only 2 oil companies are also major resellers.

Afrox, the largest MR in South Africa is not vertically integrated. Afrox purchases its LPG supply from the refineries and also imports a limited amount. The supply of LPG in South

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<sup>15</sup> Department of Energy, 2012. Transformation of the Gas Sector: Presentation.

Africa is not adequate to meet demand and this creates room for limited imports into the country.

The limited domestic supply is a concern for several reasons:

- Limited supply of LPG may create circumstances which may foster anti-competitive conduct by the firms involved. The fact that LPG is limited in supply is likely to confer substantial market power to the major resellers that are able to secure supply (allocation) of LPG from the refineries. The wholesale level is not regulated as indicated in figure 1 and discussed above.
- The strategic importance of being able to secure LPG can also be seen in the emergence of firms referred to as 'brokers' which are firms that trade in LPG refinery allocations.
- LPG is currently imported at very limited quantities, this suggests that imports are not providing a competitive constraint to the LPG supplied by the refineries and distributed by the resellers.

#### **4.2. High switching costs**

The LPG sector may be characterised by high switching costs, particularly for commercial and industrial customers. This may be in part due to the uncertainty that surrounds the current sourcing practises in the market when customers first make the decision to: a) use LPG as a source of energy and b) choose a particular firm to supply the customer with LPG. LPG supply for commercial and industrial customers is mainly done through the use of a bulk LPG tank distributing LPG to various points around the facility through a complex reticulation system. In most instances, this reticulation system is provided by the chosen supplier of LPG on the understanding that the supply will have exclusive rights to supply LPG for the customer.

The difficulty appears to arise at a later stage if a customer seeks to make the decision to switch to another supplier. It appears unclear who ownership of the reticulation system should cede to. This is exasperated by the fact that these complex systems are generally built into walls at the customer's premises, this means the option does not always exist to replace the system.<sup>16</sup> There appears to be uncertainty when consideration is made of the safety aspect of the ownership and operation of reticulation systems. The uncertainty that surrounds reticulation systems when customers seek to switch to alternative suppliers of

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<sup>16</sup> Part of this formed the basis of the complaint by KayaGas filed with the Commission in May 2012

LPG may create a restriction to competition in the market, by artificially raising switching costs. It is also likely that this may create barriers to entry and expansion for smaller distributors who do not have the benefit of a first-mover advantage.

#### **4.3. The regulatory environment**

There is price regulation at the refinery level of the market (MGRP) and also at the retail level (cylinders) however the wholesale price of LPG is not regulated. The lack of regulation at this level of the market is likely to confer significant pricing power on the firms active at this level of the value chain; this is particularly so when one also considers the limited supply of LPG in South Africa.

The current regulatory environment does not encourage switching between major resellers which may serve to inhibit competition at that level of the value chain. The current safety regulation framework appears to favour the continued ownership of reticulation systems used by customers by resellers. By conflating the safe use of a reticulation system with its ownership, the regulatory framework may have served to increase switching costs between resellers of LPG, particularly for industrial and commercial customers.

#### **4.4. LPG as a strategic energy source**

The government through the National Development Plan and National Growth Path has identified LPG as being of strategic importance in an economy struggling with rising energy prices and an electricity supply under severe pressure. LPG has been identified as an alternative energy carrier of choice for household thermal needs. This is even more so when considering the increasing price and limited supply of traditional energy sources such as electricity which may serve to make them inaccessible for low-income households.<sup>17</sup> LPG can therefore provide low-income households with an affordable alternative energy source; this will relieve them of the financial burden created by rising electricity supply and also serve to relieve some of the pressure on the electricity grid.

LPG is currently underutilised in South Africa as an energy source; only 3% of households in South Africa use LPG as their main energy source for cooking.<sup>18</sup> The limited and the

<sup>17</sup> Department of Energy, (2013), Transformation of the Gas Sector. Presentation by Chief Director: Hydrocarbons Policy dated 13 August 2013

<sup>18</sup> *Ibid*

relatively high price of LPG may serve to keep its usage low.<sup>19</sup> The market for LPG supply and distribution is unlikely to facilitate the usage expansion envisaged by the government with the aim of achieving the energy mix alluded to in the National Development Plan.<sup>20</sup> In order for South Africa to meet its strategic objectives as far as sustainable energy is concerned, it is important that the LPG sector is functioning effectively with consideration given to how competition principles can shape efficient market outcomes which will benefit the economy in general but also low-income households in particular.

## 5. PURPOSE AND OBJECTIVES OF THE MARKET INQUIRY

The **purpose** of the market inquiry is:

- To examine whether there are features of the market which lessen, prevent or distort competition.
- To establish a factual basis for making recommendations to the relevant stakeholders on the state of competition in the sector and also the recommended course of action.

The main **objectives** of the market inquiry are to:

- To examine whether the supply bottlenecks in the LPG industry in South Africa may serve to create circumstances or incentives that serve to distort, prevent or lessen competition.
- To analyse the current price regulatory framework with the aim of examining whether there is room for improving regulation to limit the exercise of substantial market power by market participants.
- To examine whether the current features of the market increase switching costs to a prohibitive level when customers seek to switch between resellers of LPG.
- To assess the extent of the barriers to entry and general competition dynamics at various levels of the value chain.
- To make recommendations that may serve to improve the state of competition.
- To make recommendations on appropriate policy and regulatory mechanisms that would enhance competition. This, where possible, will be achieved through:
  - Reviewing international models for regulatory interventions
  - Engaging with different regulators and stakeholders to obtain their input
  - Identifying possible regulatory models/ options for South Africa

<sup>19</sup> Matthews and Zeissig (2011), "Residential market for LPG : A Review of Experience of 20 Developing Countries" revealed that South Africa has the 3<sup>rd</sup> highest prices for retail LPG in a group of 20 developing countries

<sup>20</sup> The National Development Plan identifies increasing gas as a proportion of South Africa's energy mix and also reducing the country's carbon footprint as some of its objectives.

- To make recommendations with regard to the role of competition policy and competition law in achieving pro-competitive outcomes in the LPG sector in South Africa.

## **6. THE PROPOSED MARKET INQUIRY PROCESS AND TIMELINES**

### **6.1. Market inquiry process**

The Commission will evaluate the subject matter of the inquiry through a review of secondary material obtained via information requests, consultations and summons, as required. The Commission will also utilise public hearings and targeted interviews if the need arises. All interested and affected parties will be invited to submit information to the Commission which is relevant to the subject matter of the inquiry. The inquiry will be carried out by a team of the Commission's staff.

The participants in the market inquiry process will include: business enterprises along the LPG value chain (including manufacturers, wholesalers/distributors and retailers), other related business enterprises, end-users, government departments, public entities, regulatory authorities, industry associations, and any other stakeholders that may be able to provide information relevant to the market inquiry. Members of the public will be invited to participate in the inquiry during the information gathering phase and during the public hearings. Members of the public are encouraged to participate fully in the inquiry process.

The Commission is committed to the principles of fairness, transparency, and integrity and will conduct the inquiry in accordance with these principles. The Commission will allow stakeholders fair and reasonable opportunity to provide input into the inquiry process and its outcomes. Therefore the Commission will take reasonable steps to ensure that interested parties understand the Commission's thinking on the market inquiry as it develops. For this reason and its commitment to transparency, the Commission may release "issues statements" or interim reports throughout the market inquiry for public consideration and comment. The Commission may also release a report at the conclusion of the market inquiry.

The market inquiry will be carried out in three phases.<sup>21</sup> These are detailed below:

KEY ACTIVITIES	
Phase 1	<b>Evidence Gathering/Investigation</b> <ul style="list-style-type: none"> <li>• Gather relevant information, data and evidence.</li> <li>• Research the industry background and relevant case law.</li> <li>• Review the regulatory framework.</li> <li>• Review supply agreements along the value chain.</li> <li>• Hold consultations with customers, competitors, government regulators and other relevant stakeholders.</li> </ul>
Phase 2	<b>Competition assessment</b> <ul style="list-style-type: none"> <li>• Define markets (including a product and geographic market analysis).</li> <li>• Assess the competition dynamics in the defined markets</li> <li>• Assess whether there features of the market which lesson, prevent or distort competition</li> <li>• Evaluate whether there is substantial market power.</li> <li>• Assess barriers to entry and exit.</li> <li>• Evaluate the pricing dynamics in the market.</li> <li>• Draw conclusions on the state of competition.</li> </ul>
Phase 3	<b>Framework for interventions / remedies</b> <ul style="list-style-type: none"> <li>• Make recommendations that would improve competition.</li> <li>• Engage with stakeholders on the recommendations made by the market inquiry.</li> </ul>

## 6.2. Timelines

The market inquiry is expected to commence in June 2014 and is likely to be completed by October 2015. Several of the steps highlighted below may overlap which could expedite the process.

<sup>21</sup> Note that, in terms of section 43B(5) of the Competition Act, the Commission may amend aspects of the subject matter of the inquiry and the time within which the market inquiry is expected to be completed by further notice in the Government Gazette.