OVERVIEW OF PETROL AND DIESEL MARKET IN SOUTH AFRICA BETWEEN 2009 AND 2018

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ENERGY DATA COLLECTION, MANAGEMENT AND ANALYSIS

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FOREWORD

It gives me a great honour to introduce the report: Overview of petrol and diesel market in South Africa between 2009 and 2018. This report is based on information collated from government departments, petroleum industry and research papers, with the purpose of keeping stakeholders informed about the latest developments as well as key issues affecting the liquid fuels industry. The report gives an insight on the overall petrol and diesel market dynamics as well as the relationship between the two products nationally and provincially.

Petrol and diesel play a central role in the socio-economic development in South Africa, whilst simultaneously providing the much-needed infrastructural economic base for the country to become an attractive host for foreign investment in the energy space. The liquid fuels industry contribute significantly to both the GDP and sustaining employment opportunities within the country. The Department of Energy is working hard to ensure accurate, timely and reliable provision of data in its publications and hopes that this report will become a source of reference among energy analysts in South Africa and abroad.

I extend my utmost sincere thanks and appreciation to the Energy Data Collection, Management and Analysis Directorate for the hard work that went into the compilation of this publication. I would also like to record my appreciation to all the energy data providers who have helped us to accomplish the compilation of this report. Comments and inputs are welcome and could be addressed to Publications@energy.gov.za.

Mr. T. Zulu

Director General

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ABBREVIATIONS AND ACRONYMS

BFP	Basic Fuel Price
CIF	Cost, Insurance and Freight
CPI	Consumer Price Index
CTL	Coal-To-Liquid
DME	Department of Minerals and Energy
DOE	DEpartment of Energy
FOB	Free on Board
FOR	Free on Road
GDP	Gross Domestic Product
GTL	Gas-To-Liquid
IBLC	In-Bond-Landed-Cost
IEA	International Energy Agency
LPG	Liquefied Petroleum Gas
LRP	Lead Replacement Petrol
NERSA	National Energy Regulator of South Africa
OECD	The Organisation for Economic Co-operation and Development
OPEC	Organization of the Petroleum Exporting Countries
PPM	Parts per million
StatsSA	Statistics South Africa
ULP	Unleaded Petrol
USD	United States Dollar

1.INTRODUCTION

The South African fuel industry has grown considerably in recent years. The liquid fuels sector contributes about R300 billion to the GDP of South Africa and provides over 700 000 direct and indirect jobs equal to almost 5% of the total formal employment in the country (Sapia, 2017). As such the contribution of the liquid sector to the South African economy is very critical.

South Africa's transport system depends on petroleum fuels for almost all of its energy needs, with more than 80% of the petroleum fuels consumption made up of petrol and diesel (DOE, 2018). Given the 718 000 barrels per day refining nameplate capacity in the country (Sapia, 2019), both petrol and diesel consumption exceeds refinery capacity production. Consequently, there has been a steady increase in imports of both petrol and diesel finished products.

The National Development Plan (NDP) 2030 provides South Africa's vision for socio economic growth and development. The plan recognises that the country should have adequate supply security in electricity and in liquid fuels such that economic activity, transport, and welfare are not disrupted (NDP 2030: 163). The plan envisages that, by 2030, South Africa will have an energy sector that promotes:

- Economic growth and development through adequate investment in energy infrastructure;
- The sector should provide reliable and efficient energy service at competitive rates, while supporting economic growth through job creation;
- Social equity through expanded access to energy at affordable tariffs and through targeted, sustainable subsidies for needy households; and
- Environmental sustainability through efforts to reduce pollution and mitigate the effects of climate change.

The South African petroleum industry has evolved over the years in line with international standards in terms of environmental sustainability as well as evolving fuel and vehicle technology. However, South Africa is still currently on Clean Fuels I (CF1) which is equivalent to Euro Ill liquid fuels specification. It is therefore important for South Africa to transition to Clean Fuels II (CF2) specification, which is equivalent to Euro V specification in order for the country to be in line with the latest international standards and technologies. The Euro V specification aims to cut the high levels of sulphur found in South African-produced fuels from 50 parts per million (ppm) to 10 ppm. The reduction is expected to produce the cleaner standard of fuels required for fuel-efficient vehicles, and also benefit the environment with less emissions

[1] DOE sources fuel sales volume (FSV) data from the Petroleum Industry (7 Oil Companies in South Africa)

1.1. Outlook

The increase in demand for petroleum products will be determined primarily by the growth in the country's GDP, GDP per capita, the rate of urbanisation and population growth. However, the rate of growth in demand is expected to be offset by declines in energy intensity. The South African economy, which grew by an estimated 0.8 % in 2018, is expected to grow by 1.5 % in 2019 and 2.1 % in 2021 supported by a gradual improvement in confidence, more effective public infrastructure spending, and a better commodity price outlook than previously assumed (National Treasury, 2019). This is still in line with the NDP, from which the expected public investment in infrastructure could reduce bottlenecks in transport, while stronger employment growth will contribute to increased household consumption, which in turn, will increase the demand for liquid fuels in the country.

Due to low oil resources in South Africa, the security of supply will depend on the economic and political stability in the Organization of the Petroleum Exporting Countries (OPEC) countries, as well as the substantial investment needed in South Africa's refinery capacity.

According to the BP Energy Outlook (2019), energy demand from the transport sector, which is currently at about 21%, is expected to grow less than half the rate of the previous 20 years, as improvements in vehicle efficiency accelerate. The transport sector continues to be dominated by oil, however declining to around 85% by 2040, down from 94% currently. Natural gas, electricity and biofuels together account for more than half of the increase in energy used in transport, with each providing around 5% of transport demand by 2040 (BP Energy Outlook, 2019).

1.2. Legislation and Regulation governing the petroleum industry

As it stands, the DOE oversees the development of energy policy and implementation. The department's strategic goals, among others, are to ensure that the energy supply and demand are well managed, and that there is an efficient and diverse energy mix for universal access within a transformed energy sector, and also to implement policies that adapt to and mitigate the effects of climate change. Energy policy and its subsequent legislative and regulatory frameworks are the foundation upon which the regulator and investors make decisions and consumers make choices about which energy solution to use.

Following the 1994 South Africa`s democratic elections; the new government reviewed and developed policies in the energy sector driven by international trends. As a result, the White Paper on Energy Policy was developed in 1998 and it has been used as the premier policy document that guides all subsequent policies, strategies and legislation within the energy sector. The objectives of the White Paper are to increase access to affordable energy services, improve energy governance, stimulate economic development, manage energy-related environmental and health effects and secure supply through diversity.

This was reiterated in the National Development Plan 2030 that was adopted in 2013 as a blueprint for future economic and socio economic development strategy for the country. The plan envisages that by 2030 South Africa will have an energy sector that promotes economic growth and development through adequate investment in energy infrastructure. The plan also envisages that by 2030 South Africa will have an adequate supply of electricity and liquid fuels to ensure that economic activity and welfare are not disrupted.

Subsequently, in order to achieve these objectives, new policies and strategies were developed and existing policies amended. The following are legislative regulations pertaining to the petroleum sector post the promulgation of the White Paper:-

- Petroleum Products Amendment Act:- the Act was promulgated in 1977 but has since undergone a number of amendments, of which the last two were during 2003 and 2008. The objectives of the Act are for the government to limits the number of licences allocated. The Act prohibits manufacturers and wholesalers from holding a retail licence except for training purposes. Also, it aims to facilitate transformation of the South Africa's petroleum and liquid fuels industry, ensure system for allocation of licences, prescribe offences and penalties, and provide for appeal and arbitration as well as annexure the liquid fuels charter.

- Petroleum Pipelines Act, 2003:- The Act aims to promote competition in the construction and operation of petroleum pipelines, loading facilities and storage facilities. It intends to promote the efficient, effective, sustainable and orderly development, operation and use of petroleum pipelines, loading and storage facilities. Also, the Act aims to facilitate investment in the petroleum pipelines industry, provide for the security of petroleum pipelines and related infrastructure as well as promote companies in the petroleum pipeline industry that are owned or controlled by historically disadvantaged South Africans, amongst others.

- Regulations Regarding Petroleum Products Specifications and Standards for South Africa: - The aim of the regulation is to recommend the tightening of fuel specifications by further reducing the levels of sulphur in both petrol and diesel as well as the reduction of benzene and aromatic levels in petrol to levels equivalent to Euro 5 emissions standard.

- The regulations on the Mandatory Provision of Energy Data: - The regulations were gazetted in 2012 to enable the Department to collect, collate and publish quality energy data and information in an effective and efficient manner. The regulations also empower the Department to stipulate the type, manner and form of energy data and information that must be provided by any data provider.

Aspects of the South African petroleum value chain are regulated largely under the mandate of the Department of Energy (DOE) and administered either directly or by the National Energy Regulator of South Africa (NERSA). The DOE is responsible for the setting of various price levels for petroleum products and licensing activities throughout the downstream liquid fuels value chain in terms of the Petroleum Products Act, No 120 of 1977, as amended. NERSA sets tariffs for the infrastructure linked to the value chain e.g. petroleum pipelines and storage facilities.

This report presents an in-depth analysis on South Africa's petrol and diesel market, which includes sources and the overall petrol and diesel market dynamics, as well as the relationship between the two products. Also included in the overview is a brief discussion on the influence of the transport sector on the fuel market and a discussion on prices. Due to lack of reliable data at a disaggregated level, the report only focuses on national and provincial analysis as well as retail and commercial sales for petrol and diesel. Commercial sales include products sold by the Oil Companies to independent wholesalers as well as products sold to different economic sectors

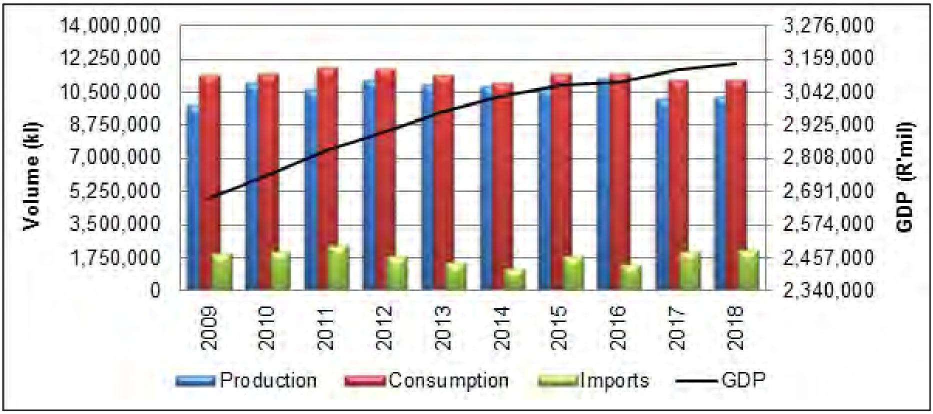
2. OVERVIEW OF PETROL AND DIESEL MARKET IN SOUTH AFRICA

Owing to the lack of reserves, the country imports over 90% of its crude oil (DOE, 2019). During the transformation stage, the country produced approximately 6.6% of its fuel requirements from gas (GTL), 46.8% from coal (CTL), and 46.6% from crude oil (DOE, Energy Balance 2016). Majority of petroleum products are refined in the country, however, some petroleum products were imported to supplement the production shortfall.

In 2018, crude oil imports were mostly from OPEC countries, with 43.2% imported from Saudi Arabia followed by Nigeria (32.6%), Angola (11.8%), United Arab Emirates (5.1%), Ghana (4.7%), and small volumes from various producers (2.6%) (SARS trade data, 2018). South Africa has the second largest oil refining capacity in Africa. The current total refining capacity amounts to 718 000 barrels per day, of which 73% is from crude oil refining, with the balance coming from synthetic fuel refining (CTL and GTL) (Sapia, 2019). The current fuel specifications and standards published by DOE are suited to meet Euro 2 fuel standards (Clean Fuels 1).

Petrol production was steady from 2010 following a 16% year-on-year increase from 2009, however there was an output slump by 10% in 2017 but soon recovered slightly in 2018. Petrol consumption was also steady between 2009 and 2018 at around 11 billion litres. Petrol demand exceeded the domestic production over the ten-year study period. As such, the excess demand was met by imports, which peaked to 2.4 billion litres in 2011, but since declined reaching 1.4 billion litres in 2016 only recovering in 2017 and 2018 (Fig. 1).

Figure 1: Supply and demand of petrol, 2009 - 2018

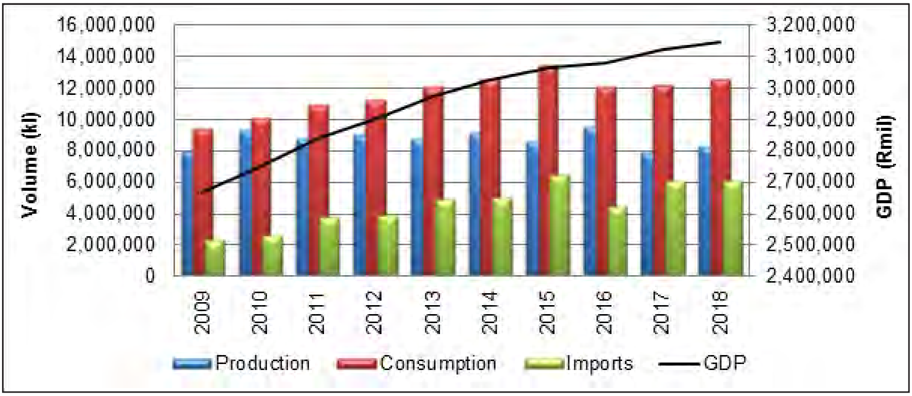


Source: Supply, demand and imports - Department of Energy (DOE), GDP - South African Reserve Bank (SARB)

Diesel production was stagnant during the period under study averaging at around 8.7 billion litres during the ten years. On average, diesel consumption grew during 2009 to 2018, despite a drop in consumption in the last three years. The demand for diesel exceeded domestic supply during the observed period with the excess demand met by diesel imports. On average, diesel imports grew at a rate of 10.3% per year between 2009 and 2018 (Fig. 2).

[2]Consumption is the fuel sales volume (FSV) as reported by South Africa's 7 Oil Companies.

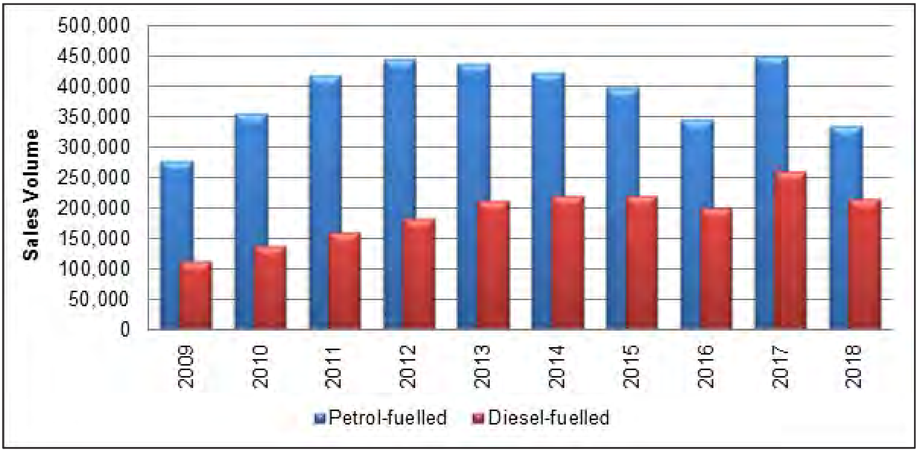
Figure 2: Supply and demand of diesel 2009 - 2018



Source: Supply, demand and imports - Department of Energy (DOE), GDP - South African Reserve Bank (SARB)

Over 80% of petrol and diesel was consumed by the transport sector (DOE, 2016) . South Africa's transport sector has changed in recent years in line with global improvement of conventional fuels, the change in vehicle design and technology development. The market share of petrol-fuelled vehicles sales keeps dropping from 71% in 2009 to 61% in 2018, while diesel-fuelled vehicle sales increased by 10 percentage points, reaching 39% in 2018 (Fig. 3). This was evident with sluggish increase in petrol consumption while diesel consumption grew substantially and over-performed petrol consumption during the observed period.

Figure 3: Total number of new vehicle sales in South Africa, 2009 - 2018



Source: National Association of Automobile Manufacturers of South Africa (NAAMSA),

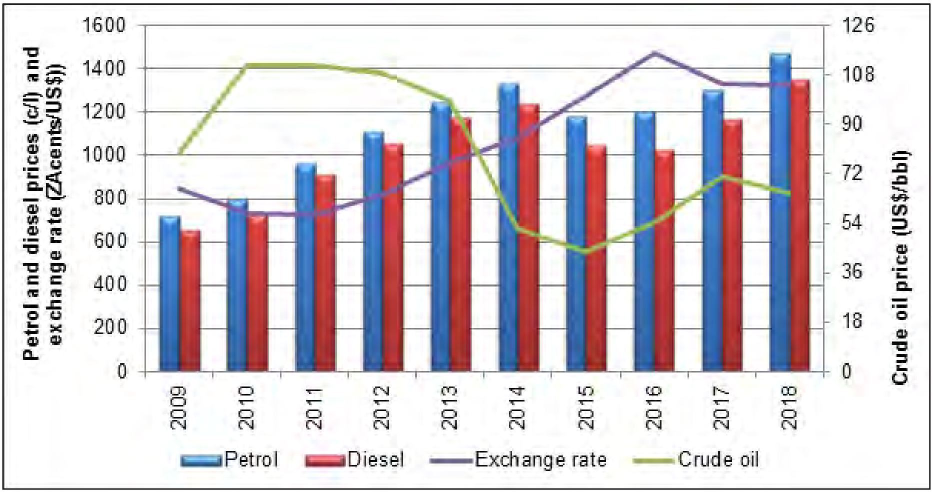
[3]Calculations were based on the DOE 2016 Energy Balances

The fuel pump price in South Africa is composed of a number of price elements and these can be divided into international and domestic elements. South Africa's fuel prices are heavily influenced by trends in the global oil market and are linked to the global market by the international element, Basic Fuel Price (BFP) system, which replaced the In-Bond-Landed-Cost (IBLC) system in 2003.The BFP is determined by taking into account the movement of international petroleum products prices as well as the United States (US) Dollar/Rand exchange rate.

The largest component of the BFP is the price that one would be paying on international markets when physically importing product to South Africa and it includes freight, insurance, ocean loss, landing, wharfage, coastal storage, the financing of the coastal storage and demurrage from refining centres in the Mediterranean, Arab Gulf and Singapore. In turn, the BFP constitutes approximately 50% of the retail fuel price in South Africa (DOE, 2018).

The remaining 50% is made up of domestic elements which are subject to government control. These elements are comprised of fuel tax, equalisation fund levy, customs and excise levy, Road Accident Fund, Slate levy, transport costs, wholesale margins, retail margins and service costs. The domestic elements are then added to the BFP to make the final pump price in the different pricing zones (magisterial district zones).

Figure 4: Petrol and diesel prices, 2009 - 2018



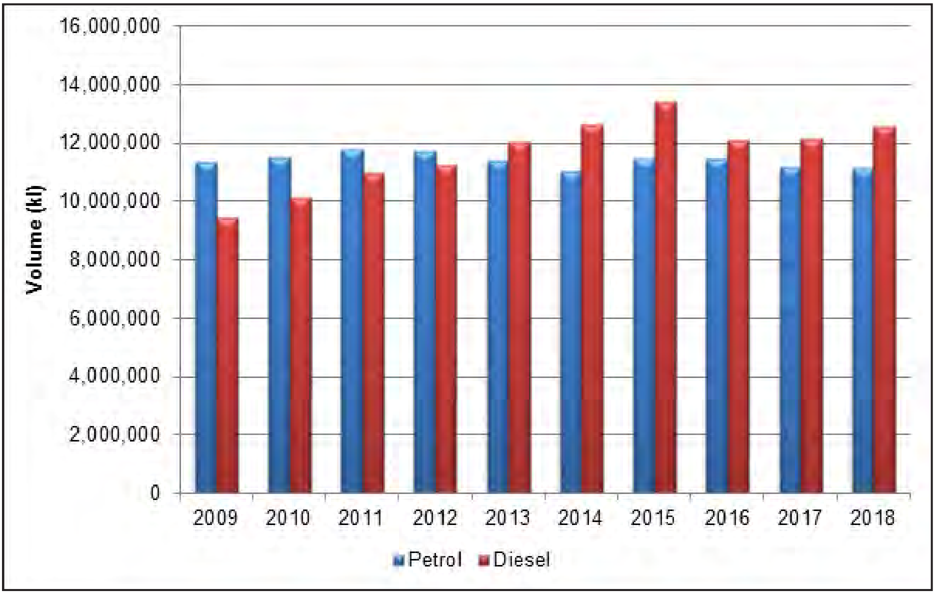
Sources: Petrol and diesel prices - Department of Energy (DOE), Exchange rates - South African Reserve Bank (SARB), Crude oil prices - Energy Information Administration (EIA)

3.NATIONAL PETROL AND DIESEL MARKET TRENDS

3.1.Consumption per product type

South Africa's petrol consumption was steady from 11.4 billion litres in 2009 to 11.1 billion litres in 2018. In contrast, diesel consumption grew by an annual average of 3% during the period under review. However, after reaching a peak of 13.4 billion litres in 2015, diesel consumption declined by 10% in 2016 and later recovered until 2018 (Fig. 5).

Figure 5: Petrol and diesel consumption, 2009 - 2018



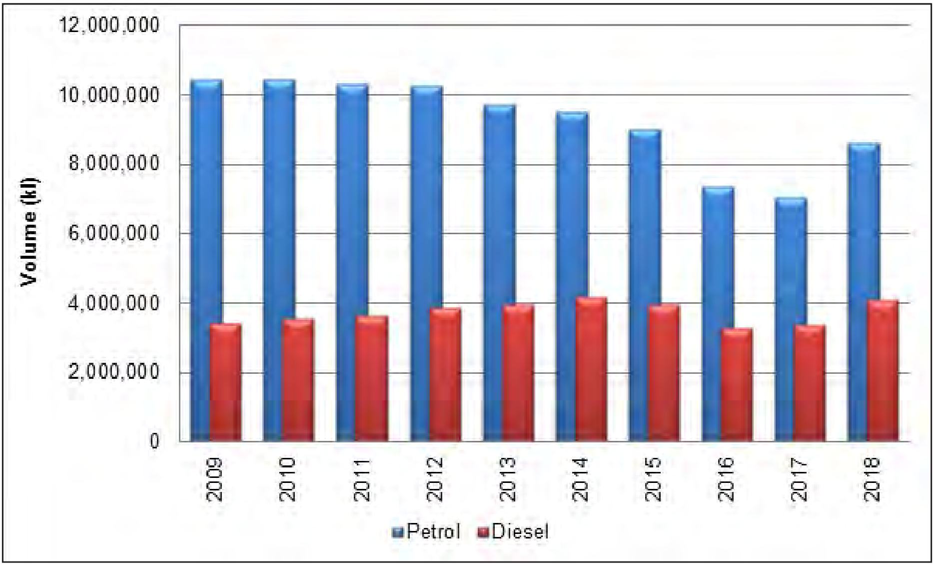
Source: Department of Energy (DOE)

3.2. Petrol and Diesel consumption per trade sector

3.2.1. Retail

South Africa's retail industry accounted for most of the petrol used. However, petrol consumption from this sector declined at an annual rate of 4% from 10.4 billion litres in 2009 to 8.6 billion litres in 2018. Petrol market share continued to decline, from 75.2% in 2009 to 67.8% in 2018 in the retail sector. Diesel consumption increased slightly during the same period from 3.4 billion litres in 2009 to 4.1 billion litres in 2018, following a 21% year-on-year increase from 2017 (Fig. 6).

Figure 6: Petrol and diesel consumption in the retail sector, 2009 - 2018

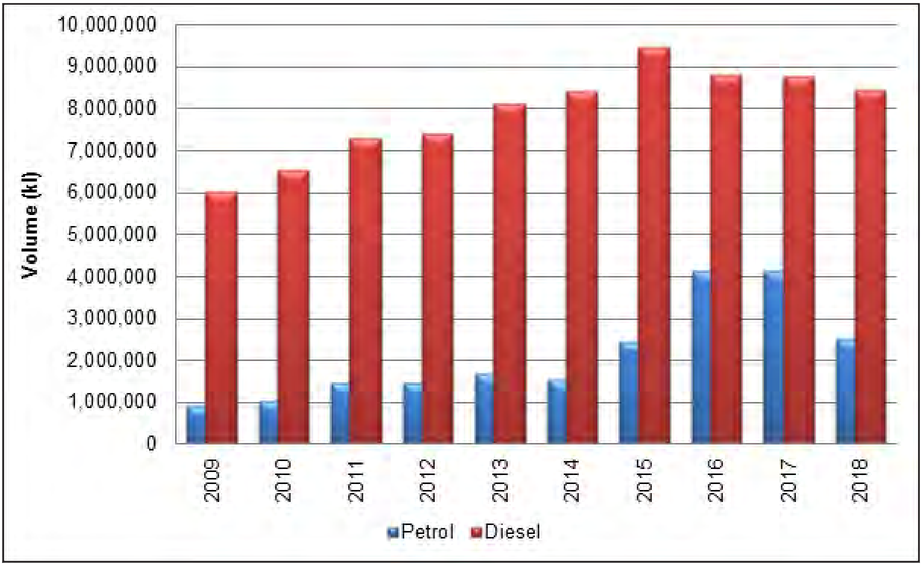


Source: Department of Energy (DOE)

3.2.2. Commercial

Diesel was mostly consumed in the commercial sector in the country, and grew by an annual average of 4.1%, from 6 billion litres in 2009 to 8.4 billion litres in 2018. The commercial operators use their own storage and dispensing facilities for refuelling vehicles and use diesel for stationary engines, such as small boilers and generators as well as for heavy machinery for production purposes. Therefore, the increase in the diesel demand from the commercial sector was mainly driven by economic growth. The average annual consumption of petrol in the commercial markets grew at an average rate of 15.3% per year, from 933 million litres in 2007 to 2.5 billion in 2018 (Fig. 7).

Figure 7: Petrol and diesel sales volumes in the commercial sector, 2009 - 2018

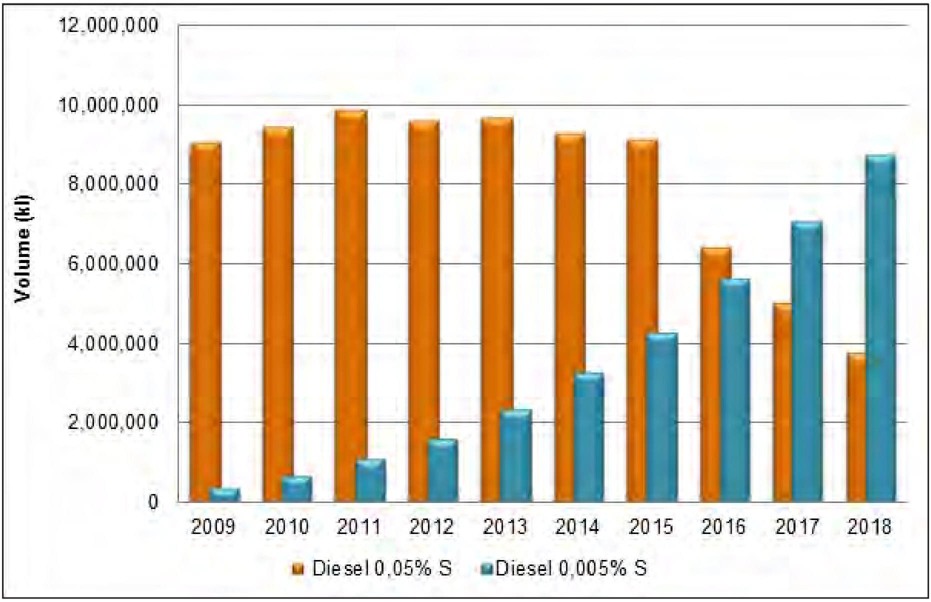


Source: Department of Energy (DOE)

3.3. Petrol and Diesel consumption per grade

The consumption of diesel 500ppm declined at an average rate of 8.8% per annum, which translates to a drop from 9 billion litres in 2009 to 3.8 billion litres in 2018 following a drastic fall by 30% year-on-year in 2016 (Fig. 8). On the other hand, diesel 50ppm grew at an average rate of 33.7% per annum from 401 million litres in 2009 to 8.7 billion litres in 2018.

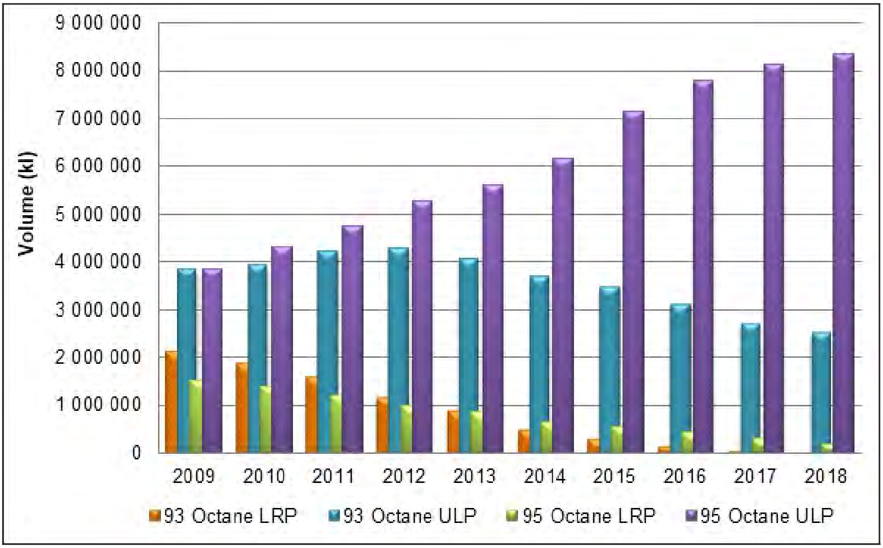
Figure 8: Consumption per grade of diesel, 2009 - 2018



Source: Department of Energy (DOE)

The market share of ULP increased from 68% in 2009 to 98% in 2018, with the 95 octane ULP grade dominating the market since 2009 at 34% to 75% in 2018 (Fig. 9). The consumption of 93 octane ULP declined at an average rate of 5.3% per annum from 3.8 billion litres in 2009 to 2.5 billion litres in 2018.

Figure 9: Consumption per grade of petrol, 2009 - 2018



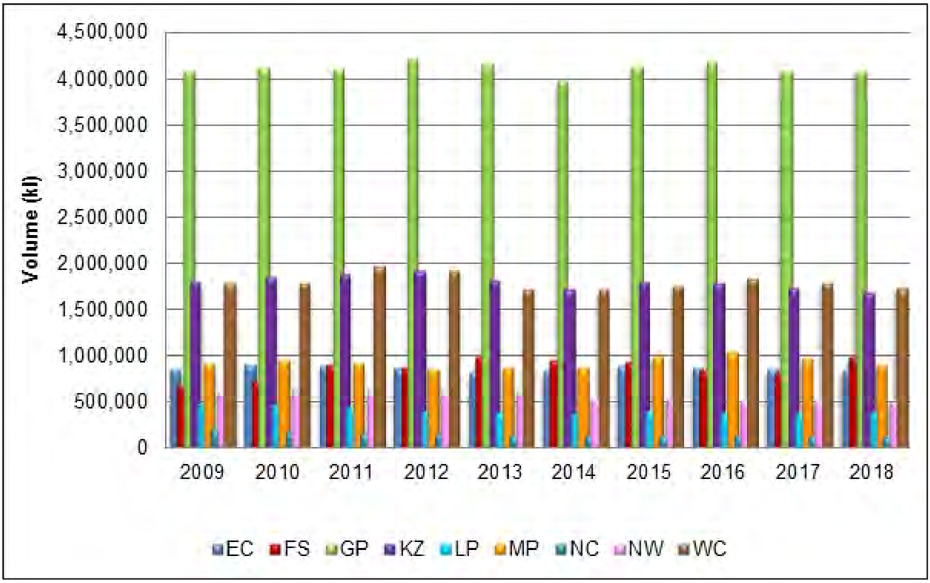
Source: Department of Energy (DOE)

4. PROVINCIAL PETROL AND DIESEL MARKET TRENDS

4.1. Petrol consumption per province

Petrol consumption per province was dominated by Gauteng, which consumed on average 36% of the total consumption, followed by Kwa-Zulu Natal and Western Cape both at 15.7%. The rest of the provinces consumed petrol below 1 billion litres over the years. Northern Cape continued to rank last in the past 10 years, dropping from 191 million litres in 2009 to 107 million litres in 2018 (Fig. 10).

Figure 10: Petrol sales volumes per province, 2009 - 2018

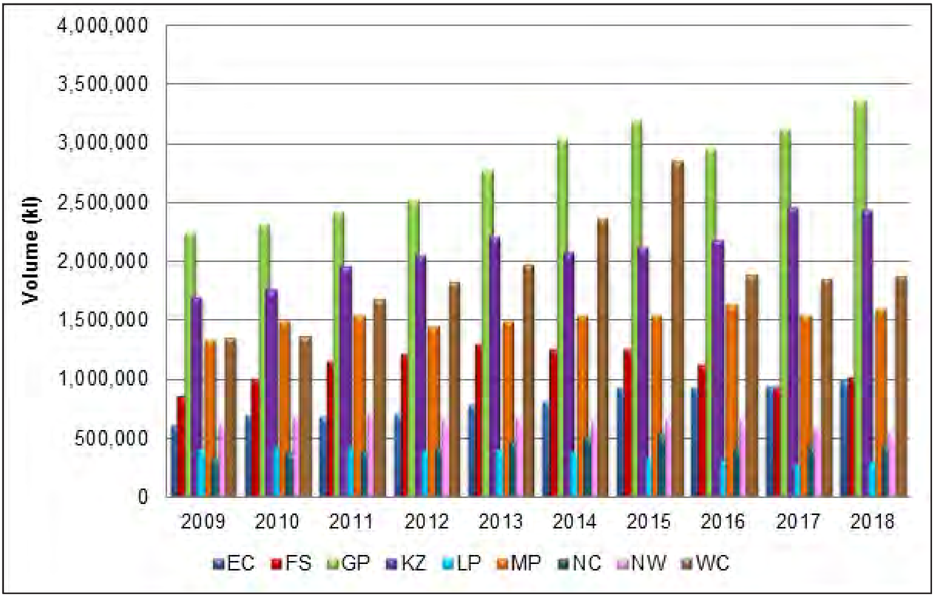


Source: Department of Energy (DOE)

4.2. Diesel consumption per province

Diesel consumption per province was also dominated by Gauteng at 23.1%, followed by Kwa-Zulu Natal and Western Cape at 17.4% and 16.2%, respectively. Most of the other provinces exhibited a positive trend in diesel consumption except for Limpopo and North West, where demand declined at an average rate of 4.6% per year and 1.8% per year, respectively (Fig. 11).

Figure 11: Diesel sales volumes per province, 2009 - 2018



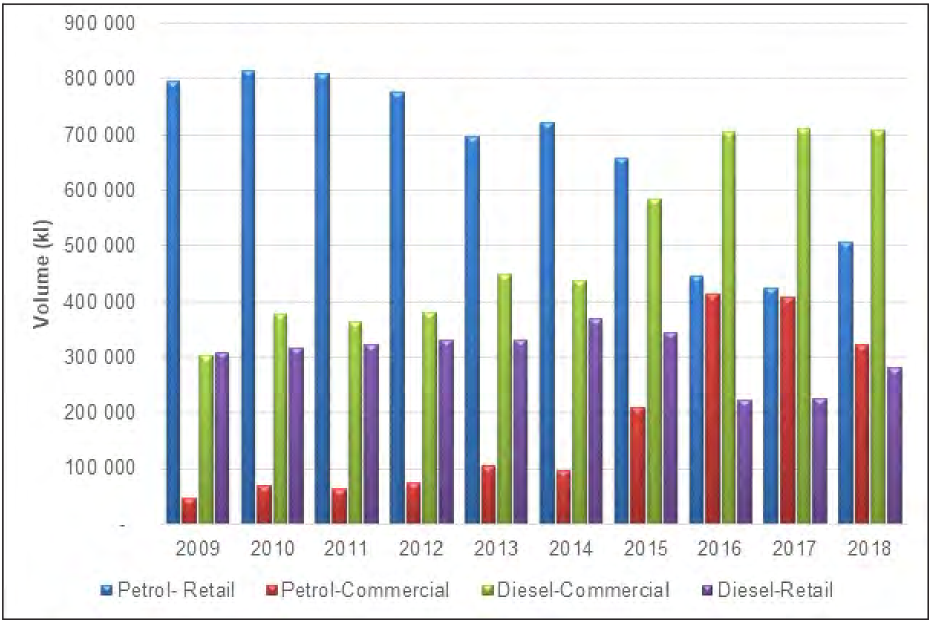
Source: Department of Energy (DOE)

4.3.Provincial petrol and diesel consumption per trade sector

4.3.1.Eastern Cape

Fuel consumption in the Eastern Cape was dominated by petrol up until 2015 when diesel overtook petrol consumption. Petrol use in the retail sector declined at an average annual rate of 7.3% from 2009 to 2018, while commercial consumption increased by an annual average rate of 25.7% during the same period. Diesel use in the retail sector declined at an average rate of 2.9% per annum, while in the commercial sector diesel consumption grew at an average rate of 10% per year (Fig. 12).

Figure 12: Petrol and diesel consumption per trade sector in Eastern Cape, 2009 - 2018

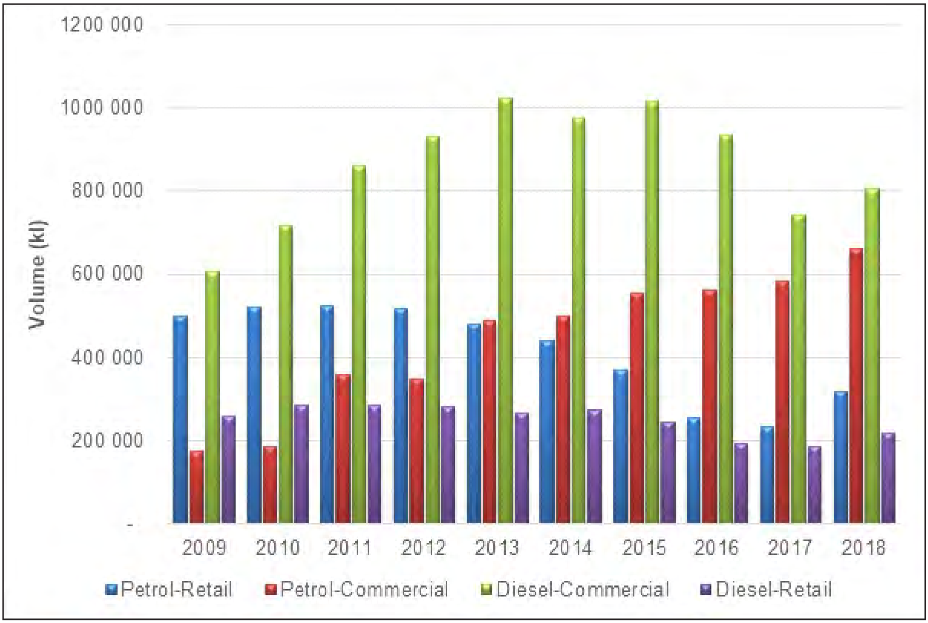


Source: Department of Energy (DOE)

4.3.2.Free State

In Free State, diesel accounted for majority of the fuel demanded, however dropped from a market share of 56.2% in 2009 to 51% in 2018. Diesel consumption grew from 608 million litres in 2009 and peaked at 1 billion litres in 2013 but has since declined reaching 804 million litres in 2018. Diesel demand in the retail sector declined annually by 4.2% per year. Petrol consumption in the retail sector declined at an average rate of 8.8% per annum, while the commercial use of petrol grew at an annual rate of 14.3%, from 174 million litres in 2009 to 661 million litres in 2018 (Fig. 13).

Figure 13: Petrol and diesel consumption per trade sector in Free State, 2009 - 2018

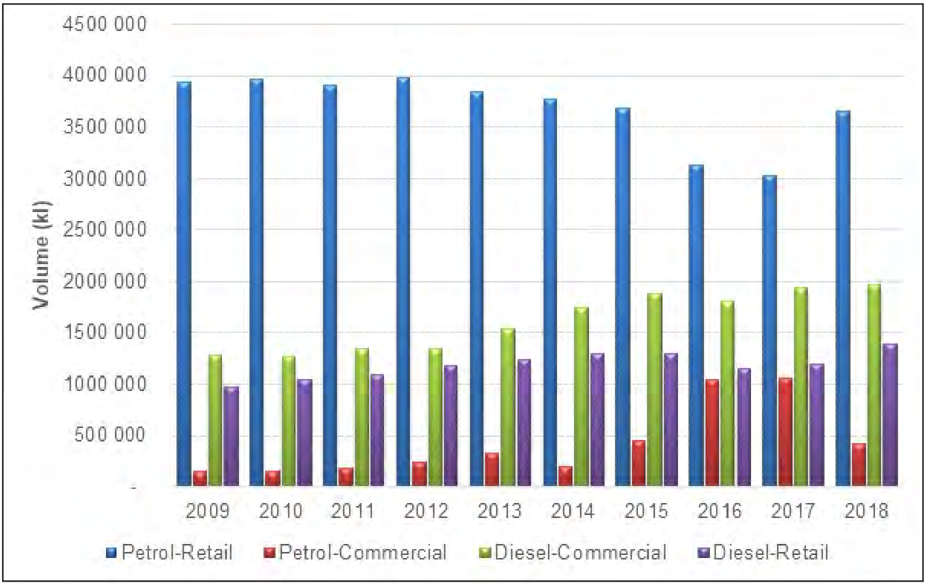


Source: Department of Energy (DOE)

4.3.3. Gauteng

Fuel consumption in Gauteng was dominated by petrol throughout the study period, despite a drop in its market share from 64.6% in 2009 to 54.8% in 2018. Petrol consumption in the retail sector declined from 3.9 billion litres in 2009 to 3.7 billion litres in 2018, while diesel consumption grew by an average annual rate of 2.9% in the same sector. The commercial sector was dominated by diesel consumption which grew by an average of 5.6% per year, while petrol consumption in the same sector grew by 19.6% per year (Fig. 14).

Figure 14: Petrol and diesel consumption per trade sector in Gauteng, 2009 - 2018

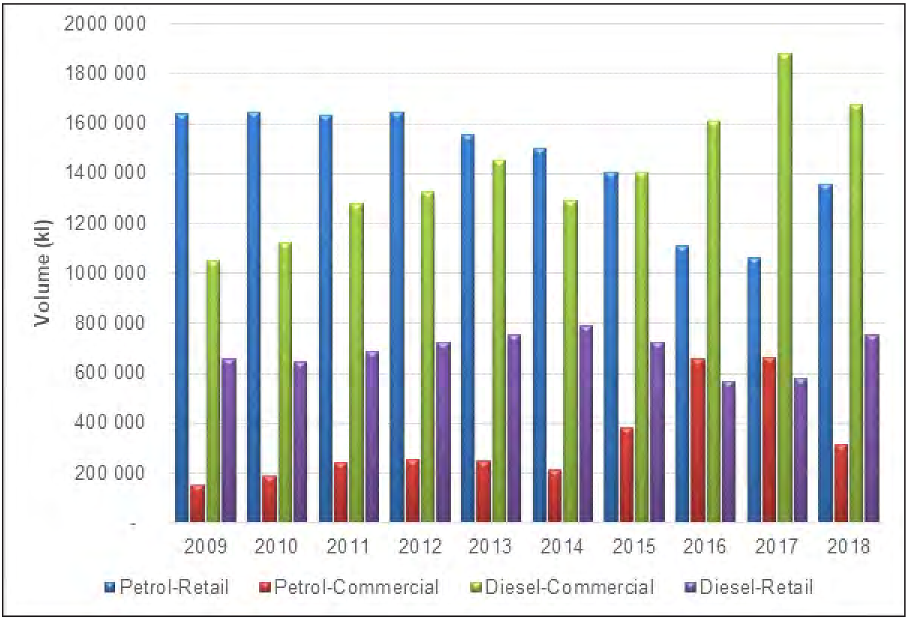


Source: Department of Energy (DOE)

4.3.4.Kwa-Zulu Natal

Petrol use in Kwa-Zulu Natal was overtaken by diesel use in 2011 and its market share has since declined to 40.7% in 2018, from 51.2% in 2009. Petrol use in the province followed the national trend, which was characterised by a negative growth in retail, while consumption in the commercial sector grew at a faster rate. Diesel consumption in the commercial sector increased at an average of 5.5% per year while diesel consumption in the retail sector was stagnant (Fig. 15).

Figure 15: Petrol and diesel consumption per trade sector in Kwa-Zulu Natal, 2009 - 2018

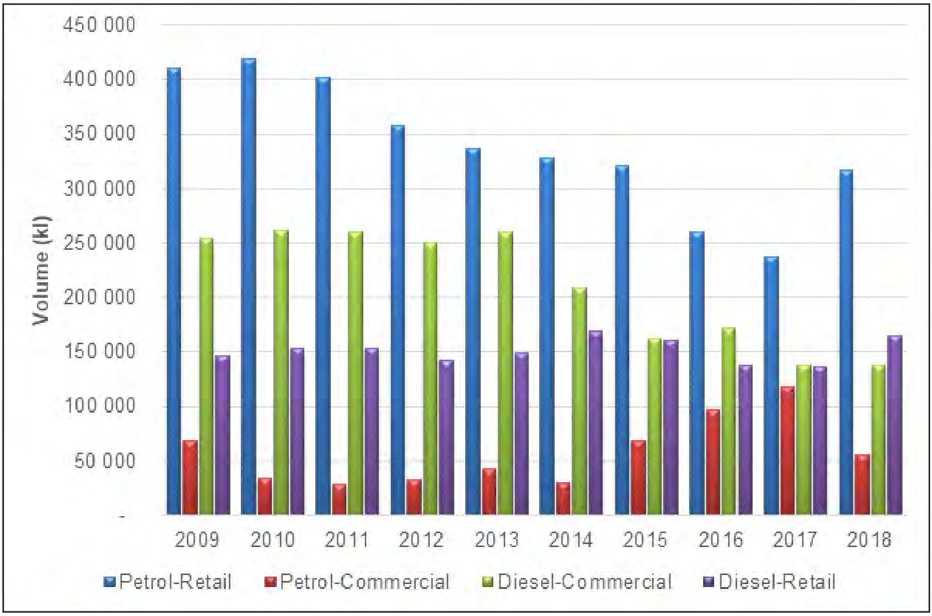


Source: Department of Energy (DOE)

4.3.5. Limpopo

Petrol consumption in Limpopo decreased by 5.4% per annum in the retail sector, which however saw a 33.4% year on year increase in 2018. In commercial use, petrol consumption initially declined reaching its lowest of 28 million litres in 2011, but then started to increase reaching 118 million litres in 2017 then dropped by just over 50% year on year in 2018. Diesel consumption in the commercial sector declined at an average annual rate of 8.3% while consumption in the retail sector remained stable between 2009 and 2018 (Fig. 16).

Figure 16: Petrol and diesel consumption per trade sector in Limpopo, 2009 - 2018

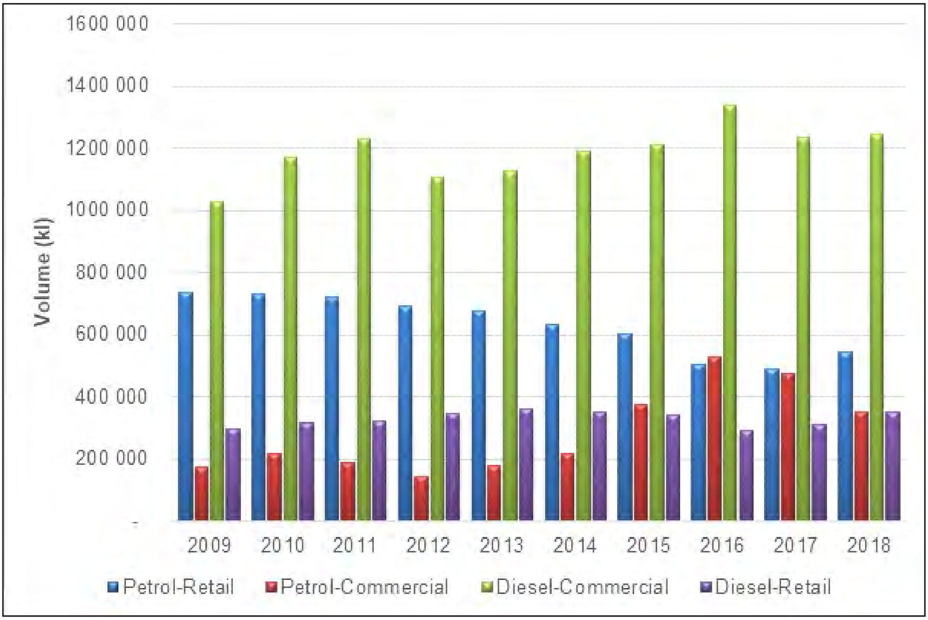


Source: Department of Energy (DOE)

4.3.6.Mpumalanga

Diesel consumption in Mpumalanga grew by 1.7% per annum in the commercial sector while consumption remained steady in the retail sector between 2009 and 2018. Diesel continued to dominate consumption from 59.3% in 2009 to 64% in 2018, mainly due to consumption by Eskom. In retail, petrol use declined from 738 million litres in 2009 to 544 million litres in 2018, while consumption in the commercial sector grew by an annual rate of 12.2% during the study period (Fig. 17).

Figure 17: Petrol and diesel consumption per trade sector in Mpumalanga, 2009 - 2018

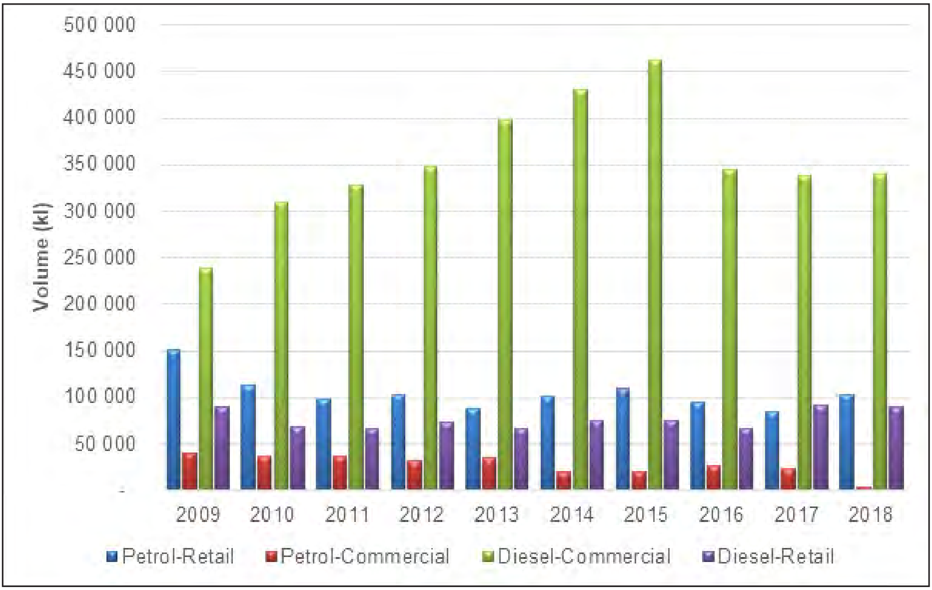


Source: Department of Energy (DOE)

4.3.7. Northern Cape

The demand for fuel in Northern Cape continued to be dominated by diesel during the past 10 years, due to the mining activities in the province, with its market share growing from 63.2 % to 80% between 2009 and 2018. Diesel consumption in the commercial sector reached its peak of 462 million litres in 2015 and has since declined, reaching 339 million litres in 2018. Diesel use in the retail sector grew at an average rate of 1.4% per year. Petrol consumption in the retail sector declined by an annual average of 3.2%, from 150 million litres in 2009 to 103 million litres in 2018, while commercial use dropped by 16.3% per annum, on average (Fig. 18).

Figure 18: Petrol and diesel consumption per trade sector in Northern Cape, 2009 – 2018

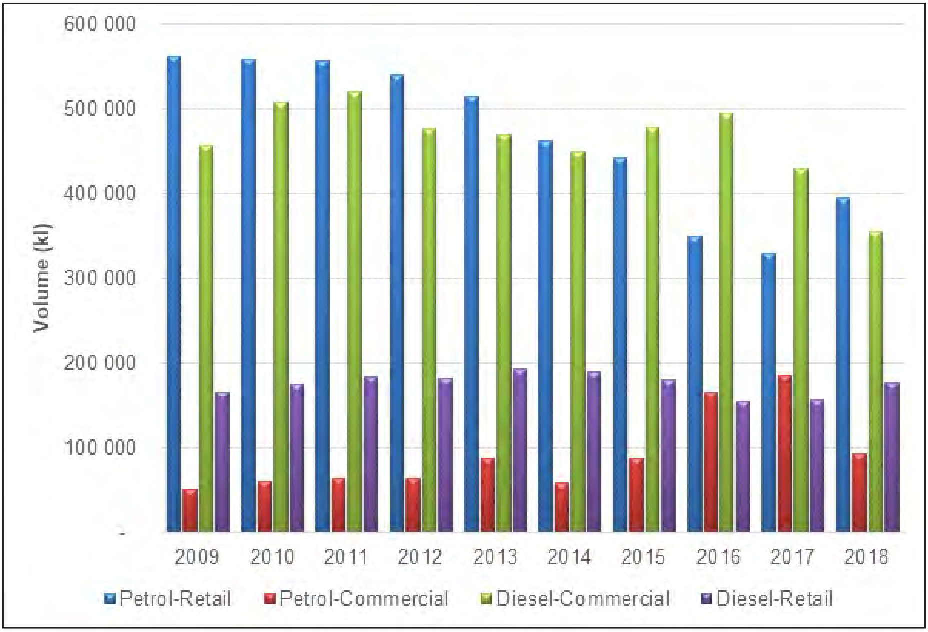


Source: Department of Energy (DOE)

4.3.8. North West

Diesel use continued to dominate in North West over the study period despite a drop at an average rate of 2.2% per annum in commercial use and a steady state in retail consumption. Petrol consumption declined at an annual rate of 6% in retail and grew by 11% in the commercial sector (Fig. 19).

Figure 19: Petrol and diesel consumption per trade sector in North West, 2009 -

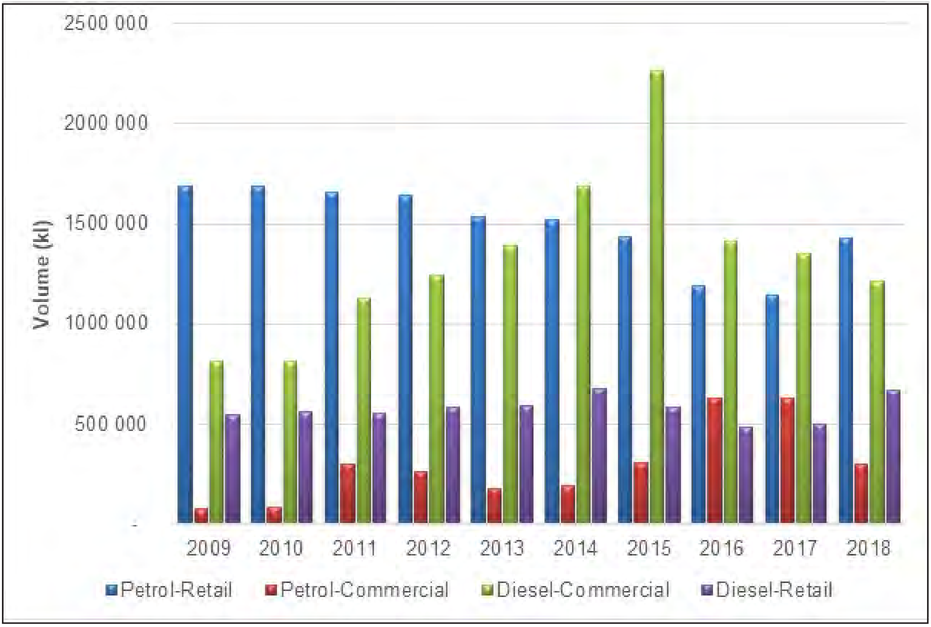


Source: Department of Energy (DOE)

4.3.9. Western Cape

Petrol consumption in the Western Cape declined by an annual average rate of 3.8% in the retail sector and increased by 18.4% in the commercial sector. Diesel dominated total fuel consumption from 2014 settling at 52% of total use in 2018. Diesel consumption in the commercial sector had a growth rate of 6.2% while the use of diesel in the retail sector was stable during the study period (Fig. 20).

Figure 20: Petrol and diesel consumption per trade sector in Western Cape, 2009 - 2018



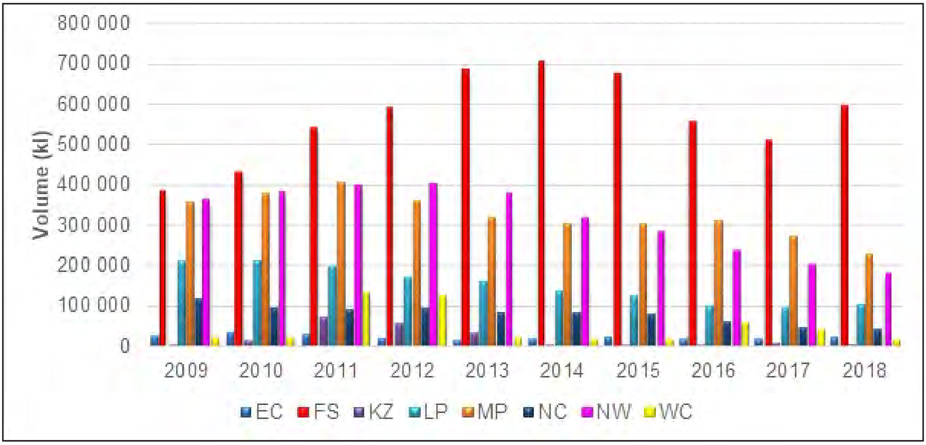
Source: Department of Energy (DOE)

4.4. Provincial petrol and diesel consumption per grade

4.4.1. Petrol

ULP 93, which is mainly consumed in the inland regions, was dominated by Gauteng with a share market falling from 61.4% in 2009 to 52.8% in 2018. Gauteng's 93 ULP use declined from 2.4 billion litres in 2009 to 1.3 billion litres in 2018. Gauteng was followed by Free State, which exhibited an overall positive trend despite a decline in the past few years, while the other biggest consumers, Mpumalanga and North West, experienced negative trends (Fig. 21).

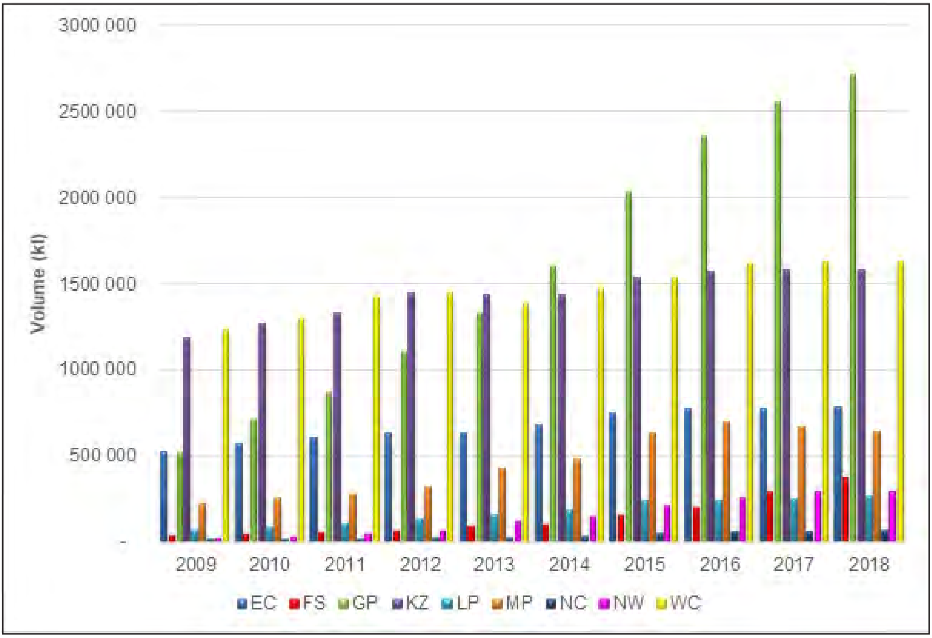
Figure 21: 93 Unleaded Petrol (ULP) consumption per province, 2009 – 2018



Source: Department of Energy (DOE)

Gauteng's consumption of ULP 95 grew at an average rate of 18.5% per year, from 530 million litres to 2.7 billion litres between 2009 and 2018. The rest of the inland regions followed a positive trend, with North West growing at a rate of 27.9% while Free State, Limpopo and Mpumalanga grew by 23.7%, 15.3% and 13.9% per annum, respectively. The Western Cape and Kwa-Zulu Natal had a similar trend both growing annually by an average of 3% (Fig. 22).

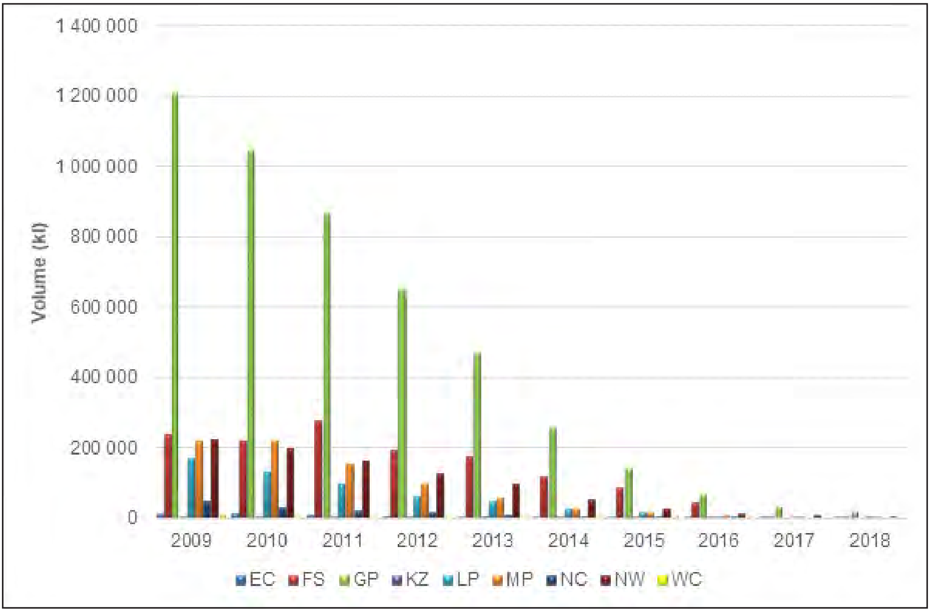
Figure 22: 95 Unleaded Petrol (ULP) consumption per province, 2009 - 2018



Source: Department of Energy (DOE)

The use of 93 LRP octane in the country has drastically dropped in the past 10 years, down from around 2 billion litres in 2009 to 28 million litres in 2018 (Fig. 23). Consumption mainly came from Gauteng, with other provinces not reporting any consumption at all in the few years.

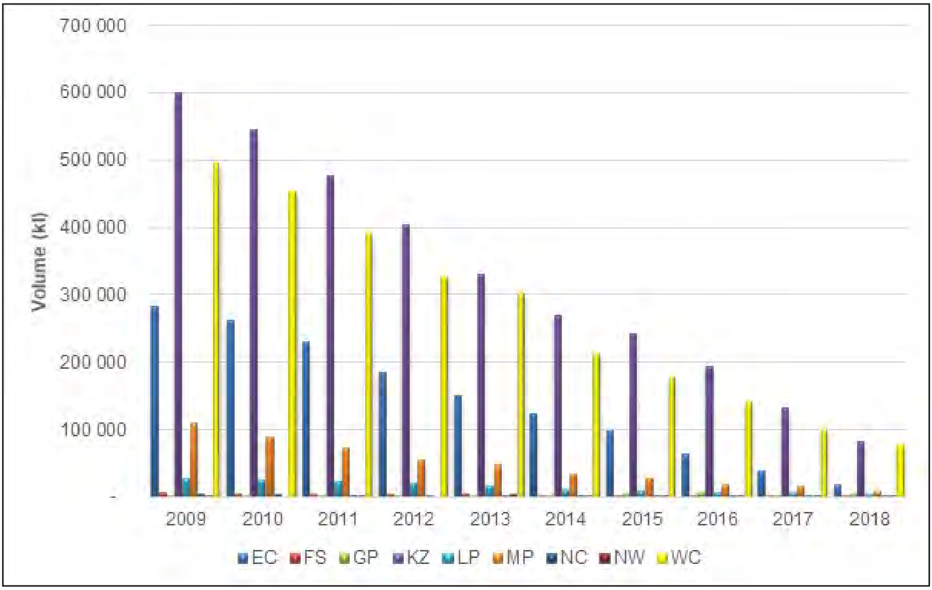
Figure 23: 93 Lead Replacement Petrol (LRP) consumption per province, 2009 - 2018



Source: Department of Energy (DOE)

The 95 LRP grade also declined drastically in the past 10 years, from a total of 1.5 billion litres in 2009 to 199 million litres in 2018. The use of the 95 LRP was dominated by Kwa-Zulu Natal and Western Cape, respectively (Fig. 24).

Figure 24: 95 Lead Replacement Petrol (LRP) consumption per province, 2009 - 2018

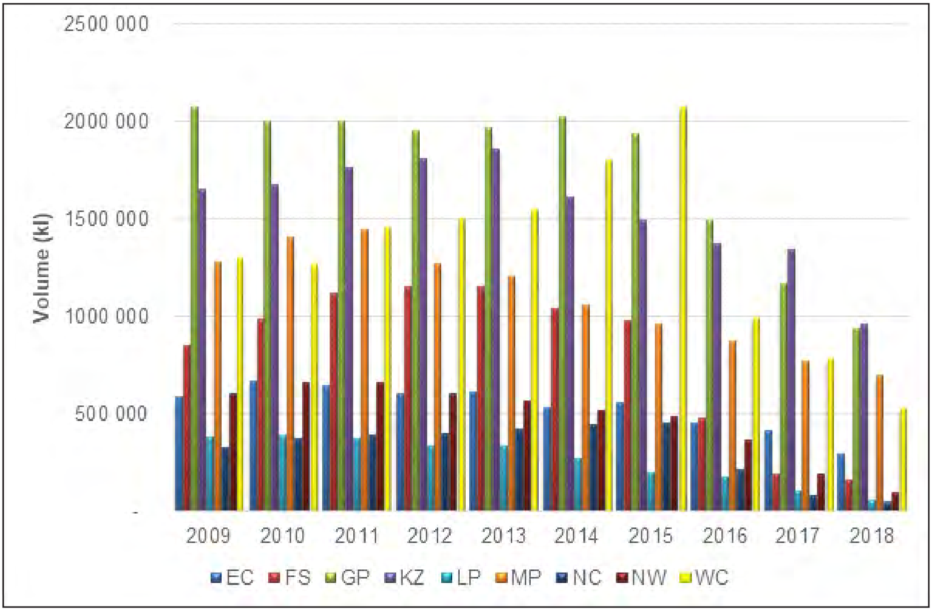


Source: Department of Energy (DOE)

4.4.2. Diesel

The use of diesel with a maximum content of 0.05% was stable from 2009, however dropped from 2015 onwards. Gauteng dominated consumption of the standard grade, however following the drop from 2015 consumption was taken over by Kwa-Zulu Natal in 2017. The rest of the provinces showed a similar trend until the end of the study period (Fig. 25).

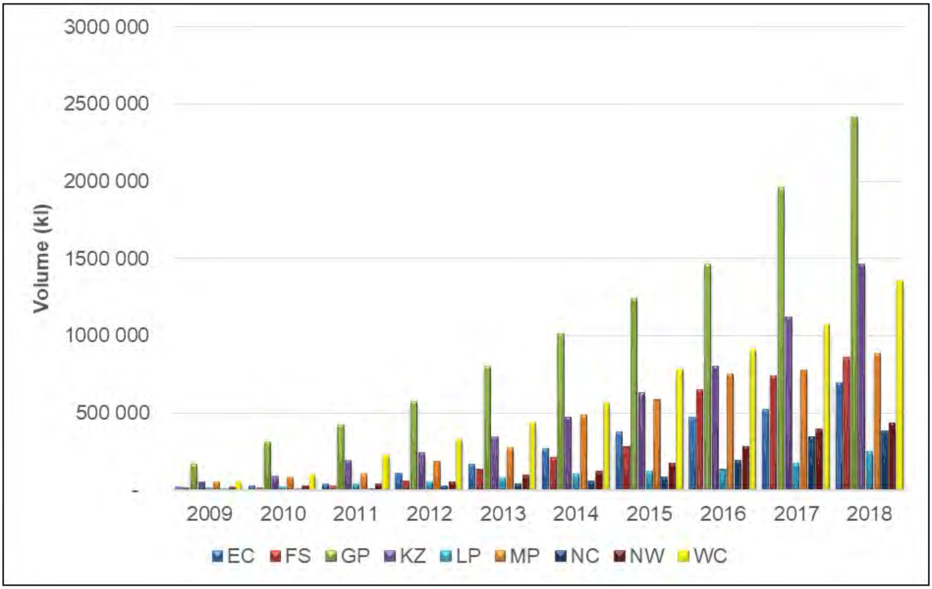
Figure 25: 500 ppm sulphur diesel consumption per province, 2009 - 2018



Source: Department of Energy (DOE)

The consumption of diesel with the maximum sulphur content of 0.005% was dominated by Gauteng. The demand for diesel with the lower sulphur content in Gauteng increased from 167 million litres to 2.4 billion litres between 2009 and 2018. The rest of the provinces experienced substantial growth, with Western Cape and Kwa-Zulu Natal taking second and third place,respectively (Fig. 26).

Figure 26: 50 ppm sulphur diesel consumption per province, 2009 - 2018



Source: Department of Energy (DOE)

5. CONCLUSION

South Africa's petrol and diesel supply has been steady during the past 10 years as there was no significant change in the country's refinery capacity. With the country's demand exceeding the domestic supply, the excess demand was met by imports. Diesel was the most imported fuel, from 2.6 billion litres in 2009 to 6 billion in 2018 following an increased use of diesel in both the commercial and retail sectors.

The retail sector accounted for majority of the petrol traded, however its market share declined in favour of diesel trade in the sector. Diesel continued to dominate the commercial sector during the study period. Provincially, Gauteng led the consumption of both petrol and diesel followed by Kwa-Zulu Natal and Western Cape, respectively. This was in line with the prevailing contribution of the three provinces to the country's GDP.

Each province displayed different trends in fuel consumption per trade sector. However, petrol was mainly traded in the retail sector for most of the provinces. Fuel in Free State, Mpumalanga, and Northern Cape was mainly consumed in the commercial sector, due to higher mining activities in these regions. The use of lead replacement petrol consumption continued to decline while consumption of diesel with 0.05% maximum sulphur started to decline from 2015.

The Department of Energy, empowered by the NDP, aims to ensure sustainability and security of supply of fuel in the country. Also, increasing collaboration between government, business and labour in implementing the NDP will help to realise faster economic growth and job creation, and in turn, will result in an increase in demand for liquid fuels.

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7. APPENDIX A: DATA SCOPE

The report was compiled with data from the following sources:

Fuel Sales Volume (FSV) data : The data was collected by DOE from the 7 oil companies in South Africa.

Petrol and Diesel trade data : The data was collected by DOE from the South African Revenue Services (SARS).

SA Gross Domestic Product (GDP) data: The data was collected by DOE from the South African Reserve Bank.

DOE Annual Energy Balances : SA Energy Balances are compiled and published annually by the Department of Energy (DOE).

Vehicle Sales data : The data was collected by DOE from the National Association of Automobile Manufactures of South Africa (NAAMSA)

South African Petrol and Diesel Prices : The data was published on DOE`s website.

Crude Oil Prices: The data was collected by DOE from the United States Energy Information Administration (EIA).

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