

**Final Report: Assessment of the Gas  
Amendment Bill and the related Socio-  
Economic Impact Assessment (SEIA's) – An in-  
depth independent analysis**

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**“PLOUGHING SEEDS OF KNOWLEDGE & EXPERIENCE”**



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## 1. Introduction

The Socio-Economic Impact Assessment (SEIA'S) is a strategic tool utilised by the South African government to ensure sound policy advice is given to Political Principals bolstered by clear policy line of sight. Global natural gas demand dropped by 1.9%, or 75 in 20 billion cubic metres (bcm) 20, as a result of the economic slowdown brought in by the Covid-19 pandemic, global demand increased by 3.6% in 2022 and is estimated to increase to 4 30a bcm by 2024, a significant increase from Covid levels.

The South African Qualification and Certification Committee for Gas (SAQQG), noted an incredible increase in the registering of gas practitioners between March 2021 and March 2023. This increase is a direct response to the ever-increasing domestic demand for gas operated products. This demand is a clear indication of South Africa's commitment to the utilisation of alternative energy sources as opposed to being reliant on coal generated electricity.

The Southern African gas industry has improved from being a marginal producer to increasing its gas production to meet unending demand. There have been significant offshore discoveries in Tanzania, Mozambique and South Africa. This has prompted a renewed focus in investment into critical infrastructure such as rail, industrial development, power generation and skills development.

The South African government has gone a step further and incorporated gas into South Africa's energy mix. The domestic use of Liquid Natural Gas (LNG), has grown significantly especially for stoves and heating solutions country wide. A Gas Terminal at Richards Bay Port is a project the Transnet National Ports Authority (TNPA) aims to develop.

Beyond the domestic use of gas, other gases exist which have good energy applications. Helium has been discovered in Virginia in South Africa in the Free State Province which is the only onshore petroleum production project in South Africa boasting an estimated helium reserve of approximately 9.74 billion cubic

metres, which is more than the United States known helium reserves. This discovery is significant considering helium's use in medical scanners, space travel, super conductors and the manufacturing of fibre-optic cables.

### **1.1 Problem Statement**

The development of the gas market as an alternative source of energy is pursued to meet the country's limited and depleting natural gas supplies. The South African government is pursuing greater support for the development of gas infrastructure as part of policy position 7 of the Integrated Resource Plan (IRP), which the Department of Mineral Resources and Energy (DMRE) is implementing. The energy sector is the core of the economy, reliable energy supports and expanded industrial development, modern agriculture, increased trade and improved transportation. Currently, South Africa is experiencing an energy deficit (less energy supply than energy required) where the demand for energy is far greater than energy supplied, resulting in load-shedding customers to avoid a complete electricity blackout. This is due to heavily reliance from a single source, coal for base load energy.

### **1.2 Scope of work**

The scope of this project is to contribute to strengthening the production of quality impact assessment reports on high impact policy and legislation in South Africa. An independent impact analysis will be conducted to assess whether the proposed legislative option namely, the Gas Amendment Bill (the Gas Bill), will assist the country as an alternative source of addressing the high demand and cost of energy. The research focus area will be to conduct an independent assessment of the Gas Amendment Bill and the related SEIAS assess whether:

1. The Bill will create an enabling regulatory environment for gas supply- in terms of infrastructure, transportation and distribution.
2. Will provide opportunities for previously disadvantaged groups.
3. Will lead to the reduction of costs of gas for households.

4. There are linkages between the Bill and the Masterplan as well as drawing from the Upstream Petroleum Resources Development Bill.
5. Consider additional strategic areas to be considered and brought into the attention of the Political Principals.

## **2. Creating an enabling regulatory environment for gas supply- in terms of infrastructure, transportation and distribution.**

South Africa's energy mix is comprised of coal, renewables, gas, hydroelectric and nuclear power. Eskom generates electricity and there's growth of independent power producers (IPPs), transmission of electricity is conducted by Eskom. Eskom undertakes distribution of electricity to end users in partnership with several local municipalities. The 2019 Integrated Resources Plan (IRP) was approved by Cabinet on the 16<sup>th</sup> October 2019, and published in the Government Gazette on the 18<sup>th</sup> October 2019. The IRP is an electricity capacity plan, which sets out and illustrates South Africa's electricity demand, how this demand is to be addressed and the cost associated with the implementation of the plan. The IRP's central objective is to attain a reliable energy future for South Africa. Immediate-term security supply is a key policy consideration in the IRP, particularly in light of Eskom's declining power plant performance, resulting in the implementation of load shedding.

The IRP provides 3,000 MW of additional energy capacity from gas and diesel. The South African government seeks to promote energy security through regional trade by importing gas-generated electricity from the Eastern part of Africa. The government has also made provisions for local gas-to-power projects to generate an additional 3 726 MW of new gas-fired electrical generation capacity.

The South African domestic LPG industry is currently faced with the following challenges; inadequate infrastructure, lack of meaningful transformation, negative perception about the LPG and outdated LPG pricing framework amongst others. The central objectives of the Gas Amendment Bill (the Gas Bill) is to update the Gas Act of 2001 by ensuring the promotion of the optimal development of the gas industry, the advancement of broad-based black economic empowerment, to achieve socio-economic and environmentally

sustainable development and ultimately to cater for new development and changing technologies in the gas sector, facilitate gas infrastructure development, investment and strengthen enforcement and improve compliance. The National Energy Regulator of South Africa (NERSA) is empowered by the Bill, to be well capacitated in setting tariffs and overall prices to monitor, approve and regulate gas transmission, storage and distribution tariffs.

The Southern Africa regional gas-field development will provide natural gas to the region. Vast amounts of natural gas exist in Mozambique, Namibia and rapid expansion of offshore gas reserves in South Africa. In 2022 Cabinet published the Liquefied Petroleum Gas (LPG) Rollout Strategy of 2022 in order to mitigate South Africa's energy supply challenges. The LPG Rollout Strategy has an objective to ensure LPG significantly contributes towards contributing to finding solution to South Africa's energy challenges, by focusing on solutions.

There has been insignificant investment into South Africa's LPG infrastructure as limited investment has been made towards import facilities and storage facilities which have hindered the supply of LPG. In 2020, Bidvest Tank Terminals and Petredec established a storage facility capable to fully load a very large Gas Carrier. These types of very large gas carriers manage very high volumes of gas transportation shipping liquified petroleum gas (LPG) that is extracted from petroleum reserves, and liquified natural gas (LNG) that is extracted from hydrocarbon deposits near fossil fuels.

## **2.1 Infrastructure investment to support a vibrant gas industry**

The South African Cabinet approved the establishment of Infrastructure South Africa (ISA), located within the Department of Public Works and Infrastructure (DPWI), a direct response from the Infrastructure and Investment Office in the Presidency to review and align the mandates of the Presidential Infrastructure Coordinating Commission Technical Task Team (PICC TTT), and the broader public institutional framework for the delivery of public infrastructure.

In order to accelerate infrastructure investment all these mandates are nestled within Infrastructure South Africa to achieve public and private sector led catalytic social and economic infrastructure projects. In practice ISA oversees the project preparation, appraisal, and evaluation, required to package the required market-ready infrastructure project pipeline to roll-out South Africa's Infrastructure Investment Plan and the National Infrastructure Plan 2050.

South Africa's Infrastructure Fund worth R100 billion to be rolled out in 10 years, is set to transform public infrastructure financing using blended finance capital derived from the public and private sector, development finance institutions and multilateral development banks especially the Development Bank of Southern Africa (DBSA). To ensure it is implemented effectively it will make use of private sector technical capacity and expertise. The infrastructure fund's focus is on energy, water, transport and ICT infrastructure projects.

The Bill has considered the regulation and improvement of transportation technologies in relation to licensing requirements as it is required that all liquefaction or regasification activities need to be licensed which includes land-based regasification plants and floating regasification storage units. This is warranted as regasification facilities perform an important role in converting gas back from liquid after or during transportation. Furthermore, the Bill purposes that the Minister of DMRE should consult NERSA to determine the establishment of new gas facilities, services or gas. In this regard, the Minister will name an organ of state as the buyer, user or procurer of gas in the determination. A determination may also provide for the establishment of an integrated energy project, which may include one or more gas facilities.



### **3. Will provide opportunities for previously disadvantaged groups**

South Africa's energy transformation road map is enshrined in the 1998 Energy White Paper, Liquid Fuels Charter, Codes of Good Practice for BEE and the B-BBEE Act of 2003. The Liquid Fuels Charter has been enacted in order to transform the liquid fuels industry to achieve the policy objectives of the 1998 Energy White Paper. The charter for the South African Petroleum and Liquid Fuels Industry on Empowering Historically Disadvantaged South Africans in the Petroleum and Liquid Fuels Industry, known as the Liquid Fuels Charter (LFC), was signed by the industry in 2000. It aimed to ensure the sustainable presence, ownership and control by approximately 25% of historically disadvantaged South Africans across the industry value chain by 2010. As the first industry to sign such a charter, South African Petroleum Industry Association (SAPIA) members prioritised the critical need to correct the imbalances of the past, long before the Broad-Based Black Economic Empowerment Amendment Act of 2013.

The goal of 25% ownership of the South African petroleum industry by historically disadvantaged South Africans (HDSA) is being met by SAPIA members. All privately owned, integrated members of SAPIA have concluded transactions, in differing arrangements, to facilitate HDSA ownership of their companies or to assist in the development of qualifying small enterprises. The implementation of the LFC includes much more than ownership. Procurement, employment equity, capacity building and the creation of a supportive culture are also vitally important.

In 2005, SAPIA and Women in Oil and Energy (WOESA) signed a MoU for empowerment of women in the oil and energy sector. The MoU was valid for three years. SAPIA members individually continued to financially support WOESA. SAPIA and WOESA worked together to facilitate the sustainable

empowerment of women in the oil, gas and other energy sectors. The MoU allowed for two types of relationships between the organisations – one direct relationship between WOESA and SAPIA and another bilateral relationship between WOESA and individual SAPIA members.

According to the brief explanatory memorandum published on 13 April 2021, the Gas Bill seeks to amend the Gas Act 48 of 2001 and insert certain definitions; to provide for the promotion of the orderly development of the gas industry; to enhance the national regulatory framework; to promote broad-based black economic empowerment; to provide for socio- economic and environmentally sustainable development; to provide for new developments and changing technologies in the gas sector; to facilitate gas infrastructure development and investment; to provide for cooperation between the private and public sectors; to strengthen enforcement and improve compliance; and to provide for matters connected therewith

The domestic LPG industry needs to be transformed at a very quick pace. It is currently operated by wholesalers who make up over 90% of the wholesale market that have historical supply relationships and contracts pre-dating the dawn of democracy with local refineries which inevitably created a barrier for new black players to enter the industry. The existence of these monopolies has contributed to a rise in prices and a lack of competition. At the 2023 BRICS plus summit Saudi Arabia and South Africa have recommitted their investments objectives towards increasing refining capacity in South Africa by building a new refinery to be led by Saudi's Aramco. Aramco is the world's largest integrated energy and chemicals company, creating value across the hydrocarbon chain, and delivering societal and economic benefits to people and communities around the globe who rely on energy products.

The DMRE is currently reviewing the Petroleum and Liquid Fuels Sector Charter and the establishment of the Petroleum and Fuels Sector Charter Council to be the compliance, monitoring and enforcement body for the implementation of B-BBEE aligned Sector Codes. This will enable the controller of petroleum

products when considering license application to promote and advance black people as defined in the B-BBEE Act. This is the instrument to be used to achieve transformation.

#### **4. Will lead to the reduction of costs of gas for households**

The reduction of costs of gas for households and other end users is dealt with in another section. To achieve a substantial cost reduction the LPG Rollout Strategy needs to be implemented holistically with the support of other related departments. As stipulated by the Rollout Strategy the following needs to be implemented:

- Sustainable investment into the development and maintenance of the LPG infrastructure throughout the value chain utilising a public private sector partnership model.
- Cross departmental collaboration with the support of the relevant State-Owned Enterprises (SOE's).
- Policy harmonisation to ensure full support to realise the objectives of the LPG Rollout strategy.
- Investment in efforts to sustain affordable supply even when there's high demand.

## **5. There are linkages between the Bill and the Masterplan as well as drawing from the Upstream Petroleum Resources Development Bill**

The international oil and gas industry is facing several risks at the moment increasing volatility expressed in rising and diminishing consumer demand, price fluctuations and continuous geopolitical tensions. The Ukraine and Russia conflict and the Iran nuclear deal are some of the international energy matters impacting the oil and gas industry. In 2022 oil prices went well over \$100/barrel with expectations of excess supply expected in 2023.

Good geological knowledge to give investors access to known and unknown reserves, access to the oil and gas resource, oil and gas prices, environmental requirements and policy regulatory certainty are the main features which support decision making towards investing in South Africa's upstream oil and gas industry.

In the rest of Africa, countries have made good oil and gas discoveries in the past two decades and are employing strategies to develop these resources to achieve economic growth and sustainable employment creation.

South Africa needs to accelerate the development of its oil and gas industry as this is important for the country's just energy transition. Gas on its own is a fuel that is already being used to achieve a lower carbon economy as it has lower carbon emissions when compared to other combustible fuels.

Section 39 of the Petroleum Bill provides that the State has, through PetroSA, a right to a 20 percent carried interest in exploration and production rights (the State Option). The section goes on to provide that exploration and appraisal costs associated with the State Option are not recoverable, but that development and production costs shall be recovered from the proceeds generated from production operations.

Section 1 of the Petroleum Bill defines the term “carried interest” as the interest allocated to the State in an exploration or production right, which interest vests exclusively for the benefit of the State and the costs of which are borne by the carrying holder as contemplated in section 39. This definition currently only contemplates the State being a carried party.

Furthermore, the term ‘carrying holder’ is undefined in the Petroleum Bill. If the interpretative position is taken that the term ‘carrying holder’ refers to all participants in an exploration and production right, except the State, then this may result in black-owned oil and gas companies also being required to contribute to a proportionate share of the costs associated with the State’s 20% carried interest, relative to the 10% participating interest which it holds under section 38(1).

#### **5.1 Untransformed upstream petroleum industry (poor to no representation of Black people, women youth and people with disabilities in this sector) and monopoly by multinational companies**

Inadequate policy and legislative requirements to drive transformation imperatives and meaningful and broad-based participation by Black persons and designated groups in the upstream petroleum industry. The Bill provides for development of the Upstream Petroleum Charter to cater for meaningful and broad-based transformation focusing on procurement, local content, employment equity, human resources development. The Charter will provide for set asides for women, youth and people with disabilities.

The Petroleum Bill facilitates two forms of participation by black-owned oil and gas companies, participation in terms of section 38(1) and participation in terms of section 38(2). We anticipate that section 38(1) participation will entail the acquisition of a 10% participating interest by way of a farm-in to existing exploration or production rights alongside international oil companies. This form of participation requires that the black-owned oil and gas company remain

100% black-owned under the current drafting of the Petroleum Bill. Contrast to this, section 38(2) participation envisages the award of a reserved and open block to a black-owned oil and gas company and unlike section 38(1) participation, section 38(2) permits dilution for purposes of funding exploration and production activities.

Section 2(d) states that one of the objects of the Petroleum Bill is to substantially and meaningfully expand opportunities for black persons, to enter into and actively participate in the upstream petroleum sector and to benefit from the exploration of the nation's petroleum resources. This object is given effect through the inclusion of section 38 which requires mandatory participation by 'black persons' in every exploration and production right and the reservation of blocks in an open area for oil and gas companies.

## **6. Consider additional strategic areas to be considered and brought into the attention of the Political and Administration Principals**

**The Gas Bill is limiting in stating that it precludes or prohibits the trading in gas, development, construction and operation of gas storage and reticulation facilities without a Ministerial Determination.**

- This provision has the effect of precluding private arrangements for the construction and operation of new or existing transmission or regasification facilities without state involvement.

**Gas pipelines tend to crossover residential areas.**

- Gas companies must clearly mark those areas and make sure pipelines are deeply buried underground.
- Pipeline encroachment is a serious concern – raising awareness on this is crucial.
- Steel pipes get stolen by people who make a living out of selling scrap metals – this pose a risk to communities because gas is hazardous.
- The environmental impact associated with gas production impacts negatively on the communities surrounding the project area.

**The Minister needs to fully consider the implications of the Bill in the context of the climate emergency.**

- South Africa, and the African continent are extremely vulnerable to the impacts of climate change.
- Temperatures in the region are increasing at twice the rate of the global average.
- It is government's constitutional imperative to protect South Africans against the impacts of climate change.



**The Bill does not make adequate provision for consultation with parties interested in and affected by the activities contemplated by the Bill, or for access to information by those parties, and therefore fails to give effect to the constitutional rights to fair administrative action and access to information.**

- Consultation processes therefore need to be inclusive of all communities on a national scale.

**It is the constitutional imperative of government, to ensure that people in South Africa are protected against these impacts – that their rights enshrined in the Bill of Rights in the Constitution of the Republic of South Africa, 1996 (“the Constitution”) are upheld and protected.**

- Economic development and job creation/sustainable livelihoods will be compromised in a country devastated by the effects of climate change.

**In relation to Clause 20 relating to the National Environmental Management Act (NEMA), provide for instances where the Energy Regulator may issue a compliance notice, the validity of a compliance notice and matters connected therewith.**

- The extension of these powers to the Energy Regulator needs to be explained further especially on how the alignment and cooperative governance between the DMRE and DEFF will be achieved in line with the objectives of the One Environmental System
- The Minister of DMRE must not be perceived as encroaching into the sphere of environmental regulation as this is a shared space requiring effective coordination from the DMRE and DEFF

Since its adoption on 8 December 2014 the One Environmental System central objectives has been to achieve harmony and alignment through the integration of the mineral rights application process between the MPRDA and NEMA

The One Environmental System came into effect after the Ministers of Mineral Resources and Environmental Affairs and Water agreed to harmonise the environmental approvals, monitoring and enforcement for South African mines, evidence shows that the alignment deliberations began as far back as in 2008

The National Environmental Management Laws Amendment (NEMLA) Bill considered the following legislation to be amended; NEMA 1998; NEM: Air Quality Act 2004; NEM: Biodiversity Act 2004; NEM: Integrated Coastal Management Act 2008; NEM: Protected Areas Act 2003; NEM: Waste Act 2008 to ensure effective consultation when a decision or development impacts landowners and or communities. The agreement amongst the Ministers were for the One Environmental System to achieve the following:

- that the respective Ministers agree on fixed timeframes for the consideration and issuing of the authorisations in their respective legislation and also agree to align the timeframes and processes;
- that the Minister of Mineral Resources would be the competent authority for environmental authorisations issued under NEMA, for prospecting, exploration, mining or production operations and activities related thereto;
- the repeal of all mine environmental management provisions by means of the MPRD Amendment Act; and
- the transfer of MPRDA environmental provisions to NEMA to create a unified law and system covering environmental impact management

Section 24 of NEMA deals with environmental authorisations and the instances where environmental authorisations are required.

- The section sets out who the competent authority is under certain circumstances and it makes provision for environmental management

instruments, which either can replace the need for an environmental authorization or make it easier for an applicant to obtain one.

- The section makes provision for prohibitions and restrictions for the issuing of environmental authorizations for certain areas and empowers the Minister of DEFF to make regulations.

Clause 3 amends section 24, and provides more flexibility in the use of environmental instruments; provides for conditions and requirements to be included in the instruments; it ensures that there is a publicly available register of all adopted environmental instruments; and it makes certain textual amendments to the prohibitions and restrictions to provide clarity.

- Clause 3 also clarifies the competency of the Minister responsible for mineral resources, which is one of the implementing authorities, and it provides for simultaneous submission of environmental authorisation applications and other related licences or permits required, as well as integrated processes and decisions, where possible. It also provides for a requirement that an integrated licence can be issued after such an integrated process was followed, where the competent authority is dealing with all of these aspects together.

The problem it aimed to fix was to prevent two processes administered by the MPRDA and NEMA which increased costs to the applicants and added additional time in the application and approval process

- The One Environmental system approach means that the environmental management component of a mineral right application is regulated by NEMA but the DMRE remains the competent authority.
- The DMRE Minister is empowered to issue EA's and waste management licences for mining operations while the Minister for DFFE is responsible for legislating on environmental matters.

## 7. Conclusion

The South African domestic LPG industry is heavily reliant on the implementation of its Rollout Strategy for it to flourish. The LPG infrastructure development is a top priority for Infrastructure South Africa (ISA). The White Paper on Energy Policy gave birth to the regulation of prices in the LPG sector mainly to ensure LPG is made accessible to lower income groups, promote the use of LPG as an alternative energy source to electricity, increase employment multipliers while providing opportunities for BBE entrants.

It is evident that the LPG pricing environment is important in the achievement of the Rollout strategy. They are two levels of the LPG value chain that are affected by price regulation.

- The first is the refinery stage. In this phase LPG is sold from the refinery gate by producers at a regulated maximum price determined by the Department of Minerals and Energy (DMRE).
- The second level of the value chain subject to price regulation is the retail level, where the DMRE regulates the price of LPG sold through cylinders.

The Bill has considered the regulation and improvement of transportation technologies in relation to licensing requirements, as it is required that all liquefaction or regasification activities need to be licensed which includes land-based regasification. Technological Innovations in LPG distribution is important to make LPG more accessible, efficient, and reliable. Consideration to force the use of smart grid systems and automation to ensure monitoring and control of LPG storage tanks, enable real-time tracking of inventory levels, leak detection, and remote maintenance is required;

- To allow for timely supply management, ensuring a continuous and uninterrupted flow of LPG to end consumers.

- GPS tracking, route optimization and digital inventory management systems, will contribute to the optimization of the LPG distribution network.
- To achieve faster, safer, and cost-effective delivery, reducing turnaround times and minimizing carbon emissions associated with transportation.

It is clear from the research material reviewed that there's ongoing alignment engagements between the DMRE and DEFF to achieve the objectives of the NEMLA Bill, the MPRDA , as well with the Upstream Petroleum Resources Development Bill, are correctly aligned. There ideal outcome will be about which department will issue out decisions.