

# MINERAL RESOURCES AND ENERGY

The Department of Mineral Resources and Energy (DMRE) is mandated to ensure the transparent and efficient regulation of South Africa's mineral resources and minerals industry, and the secure and sustainable provision of energy in support of socio-economic development.

Several Acts regulate the mining, minerals and energy sectors. Key among these are the:

- Petroleum Products Act of 1977, which regulates the petroleum industry at the manufacturing, wholesale and retail levels;
- Mine Health and Safety Act of 1996, which governs mine health and safety;
- Mineral and Petroleum Resources Development Act of 2002, which provides the regulatory framework for equitable access to and the sustainable development of mineral resources and related matters;
- Electricity Regulation Act of 2006, which establishes a national regulatory framework for the electricity supply industry, including registration and licensing; and
- National Energy Act of 2008, which empowers the minister to plan for and ensure the security of supply for the energy sector.

The 1998 White Paper on Energy Policy, alongside the 2003 White Paper on Renewable Energy, sets out government's overarching position on the supply and consumption of energy.

Over the medium term, the department aimed to continue to focusing on regulating the petroleum sector; ensuring mine health, safety and equity; rehabilitating mines and the environment; extending access to electricity; enhancing energy efficiency; and managing nuclear energy in accordance with international commitments. This is intended to ensure that South Africa has an adequate supply of electricity and liquid fuels to maintain economic activity and prevent disruptions, and to give effect to a mining sector that prioritises the welfare of its human resources and the environment.

#### **Regulating the mining and petroleum sectors**

The National Development Plan envisages that, by 2030, South Africa will have an adequate supply of electricity and liquid fuels to maintain economic activity and prevent economic disruptions. The plan also sets out objectives for the mining sector to prioritise the welfare of human resources and the environment. To give effect to this vision, over the medium term, the department aimed to focus on transforming mining and energy resources and securing energy supply by developing and revising legislation and policies.

To accelerate transformation in the mining and energy sectors over the MTEF period, the department aimed to monitor and enforce compliance with the Mineral and Petroleum Resources Development Act of 2002. This is expected to be done by conducting social and labour plan inspections and mine economic inspections. To enforce compliance with regulatory standards and transformation objectives in the petroleum sector, the department planned to

inspect petroleum retail sites and issue rights or permits to historically disadvantaged South Africans.

A new exploration fund for mining was expected to be used for mining exploration to uncover untapped resources within South Africa's borders, in partnership with the Council for Geoscience (which will provide technical services) and the Industrial Development Corporation (which will administer the fund).

#### Ensuring mine health, safety and equity

The department conducts investigations, inspections and audits on mines to ensure that they comply with minimum health and safety requirements.

### **Rehabilitating mines and the environment**

To promote the health and safety of mine employees and people in surrounding communities, the department will continue to rehabilitate dangerous, derelict and ownerless mining sites. Accordingly, over the medium term, it aimed to intensify its efforts to rehabilitate derelict and ownerless mines, and seal off dangerous shafts to promote the health and safety of mine employees and people in surrounding communities.

With the prevalence of illegal mining, especially in Gauteng, it has become crucial for the department to accelerate the closure of mine shafts as they provide easy access for illegal miners to reach previously mined working surfaces. As such, over the next three years, the department plans to rehabilitate nine mines and seal off 120 shafts/holdings.

## Mining

Mining contributes significantly to economic growth. South Africa's diverse mining industry includes the production of diamonds, gold, coal, platinum, managenes and other minerals. Not only is the South African mining industry diversifying from the gold mining era to an industry with a wide range of mineral resources, but it also remains the bedrock of the economy, and an attractive sector for new and greater investments.

Despite the decline in gold mining due to complexities and costs of safely reaching deposits at depths over four kilometres, in 2023 South Africa's gold production reached 96 tonnes, thereby becoming the world's 13th and Africa's 4th largest gold producer. The sector further employed over 90 000 people, making it the third largest employer after coal and the platinum group metals sectors.

South Africa has approximately 37% of the world's manganese ore reserves, thereby securing its position at the pinnacle of manganese reserve rankings globally. In tandem with its vast

reserves, the country also leads in manganese production with an output of 7.2 million metric tonnes in 2023.

#### **Role players:**

- **Mine Health and Safety Council:** The Mine Health and Safety Council was established in terms of the Mine Health and Safety Act of 1996. It is mandated to advise the Minister of Mineral Resources and Energy on occupational health and safety at mines, develop legislation, conduct research and liaise with other statutory bodies. The council operates through a partnership between organised labour, employers and the DMRE. The council continues to focus on conducting research to provide solutions to occupational health and safety challenges. This entails developing technology to reduce noise in machines, and developing drone technology with a focus on wireless communication systems, surveying, mapping and navigation, health, safety and security, and integration for smart mining.
- **Mintek:** Its mandate, as set out in the Mineral Technology Act of 1989, is to maximise the value derived from South Africa's mineral resources through, among other things, research and development, technology transfer, and the creation of an enabling environment for the establishment and expansion of mineral industries. To this end, Mintek develops appropriate, innovative technology for transfer to the industry, and provides test work, consultancy, analytical and mineralogical services to clients around the world. Skilled personnel are key to the execution of meaningful research. Mintek will also continue with programmes to increase the academic qualifications of researchers and provide the necessary platforms to increase experience levels.
- **Council for Geoscience (CGS):** The CGS was established in terms of the Geoscience Act of 1993 to promote the search for and exploitation of minerals in South Africa. Its mandate is to generate, compile, curate and publish world-class geoscience knowledge products, provide geoscience-related services to the South African public and industry, and render advisory services related to geohazards and geo-environmental pollution. The data generated by the council enables key activities such as the assessment of environmental impacts from mining, geohazards and shale gas development.
- South African State Diamond and Precious Minerals Regulator (SADPMR): The SADPMR was established to administer the Diamonds Act of 1986 (as amended) and the Precious Metals Act of 2005. The Diamond Exchange and Export Centre (DEEC) was established by the SADPMR in terms of Section 59(b) of the Diamonds Second Amendment Act of 2005 and started operating on 14 January 2008.

One of the core functions of the SADPMR is to facilitate the buying, selling, exporting and importing of diamonds through its DEEC, which is a secure and controlled environment where goods are offered to other licensees. It plays a vital role in ensuring that unpolished diamond tenders are facilitated fairly to the local market.

 State Diamond Trader (SDT): The mandate of the SDT, as defined in the Diamonds Amendment Act of 2005, is to buy and sell rough diamonds, and to promote equitable access to and beneficiation of the country's diamond resources. It is listed as a schedule 3B public entity in terms of the PFMA of 1999. The trader is mandated to conduct research, develop a client base, contribute to the growth of the local diamond beneficiation industry, and develop efficient means of marketing diamonds not suitable for local beneficiation.

Over the medium term, the trader aimed to continue growing the local diamond beneficiation industry and increase the sale of rough diamonds to historically disadvantaged South Africans. The trader generates revenue from the sale of rough diamonds.

- **Sasol:** The international integrated chemicals and energy company develops and commercialises technologies, and builds and operates world-scale facilities to produce a range of high-value product streams, including liquid fuels, chemicals and low-carbon electricity.
- **Eskom:** It generates about 95% of the electricity used in South Africa and about 45% of the electricity used in Africa. It generates, transmits and distributes electricity to industrial, mining, commercial, agricultural and residential customers.
- **South African Gas Development Company (iGas):** It is the official state agency for the development of the hydrocarbon gas industry in southern Africa.
- **Petroleum Agency South Africa (PASA):** It promotes exploration for onshore and offshore oil and gas resources, and their optimal development. It regulates exploration and production activities, and acts as the custodian of the national petroleum exploration and production database.
- **Petronet:** It owns, operates, manages and maintains a network of 3 000 km of highpressure petroleum and gas pipelines, on behalf of government.
- National Energy Regulator of South Africa (NERSA): It is the regulatory authority for electricity, piped gas and petroleum pipelines.

- **National Nuclear Regulator (NNR):** It derives its mandate from the NNR Act of 1999, which requires it to regulate safety standards for nuclear activities in South Africa. This includes establishing safety standards and regulatory practices, ensuring nuclear installations are safe by enforcing regulatory control, granting nuclear authorisations, conducting compliance inspections, and ensuring that provisions are in place for nuclear emergency planning.
- Nuclear Energy Corporation of South Africa: It is responsible for undertaking and promoting research and development in the field of nuclear energy and radiation sciences. It is also responsible for processing source material, including uranium enrichment, and cooperating with other institutions, locally and abroad, on nuclear and related matters.
- South African National Energy Development Institute: It was established in terms of the National Energy Act of 2008. It is mandated to direct, monitor and conduct applied energy research and development, and demonstrate and deploy specific measures to promote the uptake of green energy and energy efficiency in South Africa.
- **Central Energy Fund (CEF):** Its mandate is to contribute to South Africa and the region's security of the energy supply through exploration, acquisition, development, marketing and strategic partnerships. Through its subsidiaries, the fund is also mandated to finance and promote the acquisition of coal; exploit coal deposits; manufacture liquid fuel, oil and other products from coal; market these products; and acquire, generate, manufacture, market, distribute or research any other form of energy.

The subsidiaries of the fund are the Petroleum Oil and Gas Corporation of South Africa (PetroSA), the South African Gas Development Company, Petroleum Agency South Africa, Oil Pollution Control South Africa, the Strategic Fuel Fund, the African Exploration Mining and Finance Corporation, ETA Energy Solutions and CCE Solutions.

- **PetroSA:** It is a wholly state-owned company of the Government of South Africa and registered as a commercial entity under the South African law. It is a subsidiary of the CEF.
- National Radioactive Waste Disposal Institute (NRWDI): It was established in terms of the NRWDI Act of 2008 to manage the disposal of radioactive waste at the national level. The institute is responsible for the long-term care and disposal of radioactive waste in a safe, technically sound, socially acceptable, environmentally responsible and economically feasible manner.
- Mining Qualifications Authority (MQA): It is a statutory body established in terms of the Mine Health and Safety Act of 1996 and is a registered Sector Education and

Training Authority for the mining and minerals sector in terms of the Skills Development Act of 1998, as amended. It supports the objectives of the National Skills Development Plan 2020-2030, as guided by the Department of Higher Education and Training, and also supports the objectives of the Mining Charter in terms of the Minerals and Petroleum Resources Development Act of 1996.

The MQA is responsible for administering a number of skills development initiatives. Skills programmes and learnerships aim to develop a skilled and educated workforce whose skills are recognised and valued in terms of the National Qualifications Framework. This is to ensure that the mining and minerals sector has sufficient competent people who will improve health and safety, employment equity and increase productivity.