



PARLIAMENT
OF THE REPUBLIC OF SOUTH AFRICA

PORTFOLIO COMMITTEE ON ENERGY
ANNUAL PERFORMANCE PLAN
2015/16

COMMITTEES

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150623 PC ENERGY

FOREWORD

*(Provide foreword by the Chairperson)
(To provide background of the entire strategic plan-reflecting on past, current and future strategic plans and initiatives)*

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1. Vision

An activist and responsive people's Parliament that improves the quality of life of South Africans and ensures enduring equality in our society.

2. Mission

Parliament aims to provide a service to the people of South Africa by providing the following:

- A vibrant people's assembly that intervenes and transforms society and addresses the development challenges of our people;
- Effective oversight over the Executive by strengthening its scrutiny of actions against the needs of South Africans;
- Participation of South Africans in the decision-making processes that affect their lives;
- A healthy relationship between the three arms of the State, that promotes efficient co-operative governance between the spheres of government, and ensures appropriate links with our region and the world; and
- An innovative, transformative, effective and efficient parliamentary service and administration that enables Members of Parliament to fulfil their constitutional responsibilities.

3. Values

- Openness
- Responsiveness
- Accountability
- Teamwork
- Professionalism
- Integrity

4. Mandate

The mandate of Parliament is based on the provisions of the Constitution of the Republic of South Africa, 1996, establishing Parliament and setting out the functions it performs. Parliament's role and outcomes are to represent the people and ensure government by the people under

the Constitution. Such representation is put into operation by means of public representatives who represent the will of the people in the processes of passing legislation, overseeing executive action, and the facilitation of public involvement, co-operative government and international engagement.

The Rules of Parliament provides for Portfolio Committees to:

- Process legislation introduced by the corresponding Minister, or referred to it by resolution of the House, and where necessary initiate legislation.
- Oversee the work of the corresponding Department and associated institutions.
- Make policy recommendations in the portfolio area on the basis of wider public consultation where necessary.
- Engage the Executive with respect to related international matters.

Furthermore, Section 5 of the Money Bills Amendment Procedure and Related Matters Act (No. 9 of 2009) requires Portfolio Committees to annually assess the performance of each national department. A Committee must submit a report of this assessment known as a Budgetary Review and Recommendation Report (BRRR). The overarching purpose of the BRRR is for the Committee to make recommendations on the forward use of resources to address the implementation of policy priorities and services as these may require additional, reduced or re-configured resources for the Department.

4.1. Portfolio Committee on Energy's mandate

In terms of section 57(2) of the Constitution, with regard to the powers of committees, the Portfolio Committee on Energy exercises oversight over the Department of Energy (DOE) and line entities. It also oversees the implementation of legislation administered by the DOE and its entities and will oversee recently enacted legislation in relation to this broad mandate.

5. Strategic Goals of the 5th Parliament

- Enhance Parliament's oversight and accountability over the work of the Executive to ensure implementation of the objectives of the Medium-Term Strategic Framework (MTSF) 2014-2019.
- Co-operate and collaborate with other spheres of government on matters of common interest and ensure co-operative and sound intergovernmental relations.
- Enhanced public involvement in the processes of Parliament to realise participatory democracy through the implementation of the public involvement model by 2019.

- Enhanced parliamentary international engagement and co-operation
- Enhanced ability of Parliament to exercise its legislative power through consolidation and implementation of integrated legislative processes by 2019 in order to fulfill its constitutional responsibility.
- Build a capable and productive parliamentary service that delivers enhanced support to Members of Parliament in order that they may efficiently fulfil their constitutional functions.

The strategic objectives of the Legislative and Oversight Division are:

- Reduce the average turnaround time for the provision of procedural advice, content advice, research products, minutes and reports
- To improve independent, objective and professional analysis and advice to Parliament on matters related to the budget and other money Bills
- To refine and implement the Oversight and Accountability Model, and to ensure that the Executive implements objectives of the MTSF 2014-2019 by 2019
- Enhanced quality of legislation
- Enhanced co-ordination and co-operation

6. Situational Analysis

6.1. **Introduction**
Energy, according to the Oxford Dictionary, is defined as “power derived from utilization of physical or chemical resources, especially to provide light and heat or to work machines” There are other definitions of energy but the above definition is what is of interest to this discussion. In terms of the “physical or chemical resource”, in a South African context, it could be coal, gas, oil etc. The table below lists the key resources available in South Africa and indicates in what form is it “converted to” so power can be derived from it.

Table 1: List of Energy Carriers and forms of energy it can be converted to:

Energy carrier	Converted form
Oil (crude)	Liquid Fuel (Petrol/Diesel)
Natural Gas	Electricity/Gas/GTL – Liquid Fuel
Coal	Electricity/CTL – Liquid Fuel
Hydro	Electricity
Uranium (Nuclear)	Electricity
Biomass	Wood – Fire/Electricity/(liquid fuels)
Wind	Electricity

Solar	Water heating/Electricity
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Hence this sector analysis covers the key usable forms of energy available in South Africa. In terms of energy carriers the focus will be on liquid fuels/gas and electricity. The National Department of Energy will then be discussed, the key legislation and policies guiding the department and thereafter the "tools", in the form of programmes and entities being utilized by the Department to carry out its mandate.

6.2. Overview of Carriers

6.2.1. Liquid Fuels and Gas

In terms of liquid fuels, it is a combustible liquid where the energy can be converted to mechanical energy. More well known as petrol, diesel or jet fuel (amongst others), it is a product of the refining process of crude oil (or it can be a synthetic product). Crude oil extracted via oil drilling in countries that have natural reserves and exported in raw or refined form to countries around the world. SA utilized small supplies of oil and gas that are off-shore in the fields off the west and south coast. This is in reference to the Oribi/Oryx fields and the Sable fields.

In terms of gas, SA has a 26 inch, 865km pipeline that links from the Temane Pande gas Fields in Mozambique to Sasol's Secunda site.

From here Sasol supplies numerous (about 600) commercial and industrial clients including Egoli gas via a network of pipelines. From the 1950's, due to political and economic reasons SA embarked on a programme of producing synthetic fuel from its abundant coal supplies. This would reduce SA's dependence on imported crude and hence Sasol's Coal-to-liquid plant was developed. There are two plants producing 150 000bbl/d synthetic crude.

PetroSA (which was originally Mosgas) commissioned a gas to liquid plant using Fisher-Tropsch technology which converted natural gas to synthetic liquid fuel. This plant is one of the largest in the world and obtains its gas supplies from offshore gas reserves. According to PetroSA it obtained its feedstocks from the FA-EM and South Coast gas fields including the Oribi and Oryx fields offshore of SA but due to reduced reserves, PetroSA is looking at Project Ikhwezi (offshore SA F-O fields south coast of SA) and importing LNG to meet its demands.

Key Players

There are seven major players in South Africa, including Sasol and PetroSA and these are BP, Chevron, Engen, Shell and Total. Sasol, originally funded by government is today a commercial company owned by shareholders of which the SA government is one. It owns two large coal to liquid plants in Secunda, set up in the 1970's. Sasol received tariff protection if crude oil prices dropped below 16 USD but this protection lapsed in 2000.

PetroSA, state owned company set up for the production/conversion of gas and condensate (liquid) from certain offshore fields. The Mosgas plant was commissioned in 1992 and produces a range of refined products including petrol, diesel and liquefied petroleum gas. BP South Africa is the third largest operating in SA and has a 50% stake in Sapref refineries outside Durban (Shell is the other owner) Chevron which is also known as Caltex Oil SA and owns the Cheyref/Calfref refinery in Cape Town. Engen is an African based energy company that focus on retail. It refines crude at the Enref refinery in Durban. Shell is a global energy group that entered SA more than a hundred years ago and Total entered SA in 1954 and plays a role in marketing a range of petrochemical products including jet fuel. It owns the Natref refinery in Sasolburg with Sasol.

Table 2: Refining Capacity

Refinery	Nameplate Capacity (barrels per day)
Chevref	100 000
Enref	125 000
Natref	92 000
Sapref	180 000
Sasol Secunda (CTL)	150 000
PetroSA (GTL)	45 000
Total	692 000

This does not meet all of SA's demands and SA has to import refined fuel. Further, some of the refineries are aging and need to be upgraded to meet the clean fuels 2 specification. Crude is mostly imported from Saudi Arabia, Nigeria and Angola and in 2012, SAPIA members imported 18.94 billion tons of crude oil, 85% of which came from the above mentioned countries. SA used to import crude oil from Iran and stopped in 2012 due to European and US sanctions over Iran's nuclear programme.

Additional proposed refinery capacity

PetroSA is investigating the development of project Mtombo which is a 300 000 bbl/d refinery in Coega. This is in conjunction with Sinopac and IDC. According to PetroSA, if no refinery investment is made SA will have to import more than 200 000bbl/d by 2020.

Distribution

A key development here is the installation of the new multi-purpose pipeline from Durban to Johannesburg. This project, still in the final stages of completion will result in greater fuel security, especially inland and will allow for greater participation of smaller players.

According to the South African Petroleum Industry Association, petroleum products are moved by pipeline, rail, road, sea to approximately 200 depots, 4600 service stations and about 100 000 direct customer (mostly farmers). Gauteng consumers the largest amount of petrol and diesel in the country followed by the Western Cape and Kwazulu-Natal.

In terms of wholesale and retail, the big companies mentioned are the major players as they control the refineries, operate the storage terminals and distribution facilities throughout SA. However there is an increasing trend of smaller (non-refining) wholesalers entering the market.

The 4600 service stations are company owned and dealer owned. Manufacturers and wholesalers are not allowed to hold retail licences, except for training purposes. There are also some unbranded and independently operated service stations in SA. According to SAPIA, SA consumed 11.3 billion litres of petrol and 9.3 billion litres of diesel (or 20.6 billion litres combined) in 2009. This, according to a 2013 article in the Financial Mail increased to about 24 billion litres per annum, (combined) and of this 20% of the finished product is imported.

Transformation

The Liquid Fuels Charter defines the transformation criteria of the liquid fuels industry. An audit was conducted in 2011 and in 2012; former Energy Minister Dipuo Peters indicated that she found "overall, the findings of the audit was extremely disappointing, given the timelines since the signing of the charter in 2000. The audit measured the major oil companies against 13 criteria, including ownership, access to joint facilities, management control, capacity building wholesaling etc. and found a compliance rating of 48% and the industry achieved a black ownership level of 18.91% as opposed to the target of 25%.

Upstream Oil and Gas Exploration

There is a substantial interest by international oil companies in exploring for oil and gas around the coast of South Africa. ExxonMobil and Anadarko acquired deepwater exploration rights on the East Coast. BHP Billiton, Cairn India and Sunbird Energy on the West Coast and PetroSA and Sasol will explore for oil and gas on the west coast in the Orange Basin. This was as a result of the vast oil and gas discoveries on the Mozambique coast. There is also a substantial interest in the possibility of Shale gas in the Karoo region. Estimates of reserves are put at 40 trillion cubic feet (tcf) by PASA but estimates range up to 450tcf and there is also coal bed methane reserves estimated to between 10 to 30tcf. It is estimated that 1.4tcf is required to generate 40 000MW of electricity for a year. Majority of the exploratory work is still at a very early stage. The key consideration here is the Mineral and Petroleum Resource Development Act as there are concerns by the Petroleum industry especially with regard to the state participation component (20% free carry and that the state can acquire an additional 80% as an agreed price) among others. This Bill was debated in the house and adopted. It was however not signed into law by the President and in January 2015 was referred back to Parliament.

It is also important to note that the Energy Security (Liquid Fuels) Master Plan which defines the outlook for the next 20 years is being compiled by the DoE and this has been submitted to cabinet for consideration. The plan has identified a number of constraints and

challenges in the petroleum sector. Area addressed includes infrastructure constraints including refining constraints, fuel specifications and specifications for vehicle manufacturers.

6.2.2. Electricity

Eskom, the SA power utility provides over 95% of the electricity in South Africa. The rest are generated by municipal power stations and generation by industry (mostly for self-use).

It can be noted that the President His Excellency Jacob Zuma, in his latest State of the Nation address, highlighted Energy as a key input to spur on economic growth and in this regard, the President indicated that **"We need to respond decisively to the country's energy constraints in order to create a conducive environment for growth."** This point was also highlighted in the Strategic plan of the Department of Energy (DoE) that indicated that "The capacity that was created in the 1980s was sufficient to carry us through to the early 2000s, when it became clear that the demand growth, fuelled by the commodity boom, outpaced power supply and that there was an urgent need to increase supply." South Africa has more than 41 000 megawatts (MW) of generation capacity however SA is faced with an aging fleet of generation capacity. Maintenance and unplanned breakdowns has resulted in SA being exposed to load shedding. This is having a negative effect on the economy. Eskom, further, to ensure continuous supply, is over utilizing the Open Cycle Gas Turbine Generators, which were installed to meet peak demand. The outcome of which is an excessive diesel bill of billions of rands, placing further pressure on the economy. The President has established a "War Room", headed by the Deputy President to find solutions to the current electricity crisis SA is facing.

Generation

SA generates electricity from coal, nuclear, hydro, gas, pumped storage and renewable. Coal is the main source of electricity generation at above 90% followed by nuclear at about 5%. SA has a extensive renewable energy programme but majority of these programmes are still coming on line over the next few years. Excluding the new build programmes, Eskom indicated there are 13 operational coal fired power stations of which three were return to service stations. These are based in the northern part of the country, due to the supply of coal. The largest of which are Kendal and Matimba which generate about 4000MW each and the three return-to-service stations generate approximately an additional 3500MW collectively. (In terms of coal it can be noted that SA has about 53 billion tonnes of coal reserves, mostly in the central area of SA and Eskom uses 120 million tonnes per annum.) This itself poses a problems as Eskom has to run long transmission lines to the rest of the country to supply them with electricity. SA also has the Koeberg nuclear facility at Melkbosstrand in the Western Cape that generates 1940MW of electricity. In terms of the existing hydro, pumped storage and gas turbines, Eskom classifies them as peak demand stations. SA has six hydroelectric stations, generating 600MW of electricity, the largest of which are at Norvalspont (360MW) and Petrusville (240MW); the pumped storage at Drakensberg Bergville and Grabouw generate 1000MW and 400MW respectively. Finally the four gas turbine power stations are in the Cape region (Acacia, Port Rex, Ankerlig and Gourikwa and

generate about 2400MW of electricity collectively. Finally in terms of renewable, Eskom lists the Klipheuwel Wind Farm (which is not far from Saldanha in the Western Cape which generates 3MW.

In terms of new build, Eskom is currently busy with Medupi and Kusile that can generate an additional 4800MW each but the construction of these projects have experienced challenges (both labour related and technical) and hence are delayed. The first synchronization date of 24 December 2014 for unit 6 at Medupi has been missed and now Eskom has given end February 2015 as the next possible date. It was also reported in Engineering News that the synchronization date of unit 1 at Kusile has also slipped to 2017. Eskom also lists the 1332MW Ingula pumped storage scheme, the 100MW Sere Wind Farm and the 100MW Concentrated Solar Power project (near Uppington and Kenhardt) as part of their new build projects.

Further, the procurement programme for 800MW of cogeneration capacity and of coal generation has begun. The determination also indicated that 2652MW of natural gas capacity will be procured and that process initiated once the Gas Utilization Master Plan had been completed.

In terms of the Renewable Energy Independent Power Producer Programme (REIPPP), South Africa has a high level of renewable energy potential, especially in the areas of solar and wind. In this regard, South Africa has embarked on a programme of procuring 3725MW of electricity from renewable energy sources. These sources include:

- Onshore wind
- Concentrated solar thermal
- Solar photovoltaic
- Biomass solid
- Biogas
- Landfill gas
- Small hydro

In the three bidding rounds, South Africa has selected 64 renewable projects with a combined capacity of 3933MW and from the last bidding window, an additional two projects were selected. This is a very successful programme for South Africa and, it has continued with the forth bidding window. Some of the projects from window one are complete and are currently being connected to the grid.

South Africa plans to roll out 9600MW of nuclear generation capacity in South Africa. The final decision on the procurement of this capacity resides with Cabinet. In the interim, organisations like Necsca, the National Nuclear Regulator (NNR) and Eskom have been preparing themselves for this roll out. One example is Necsca's nuclear component manufacturing capability which is being developed and accredited to international standards. Another is the review of South Africa's readiness for the nuclear new build programme by the

International Atomic Energy Agency (IAEA). South Africa became the first country with an existing nuclear programme to request an Integrated Nuclear Infrastructure Review by the IAEA. This review assists South Africa to prepare for a nuclear programme as it covers nuclear infrastructure necessary for a new nuclear power programme. Additionally SA is currently interacting with possible nuclear vendors.

Internationally, South Africa will be involved in the Grand Inga Hydroelectric Plant in the Democratic Republic of Congo which has the potential to generate 40 000MW of electricity. It can be noted that South Africa will be involved in developing Inga 3, which is the first phase of the project with an estimated generation capacity of 4800 MW of which South Africa will purchase about 2500MW. This project will also benefit other African countries. It can be noted that South Africa is part of the Southern African Power Pool and buy's and sell's power to Southern African countries. SA imports up to 1500 MW from the Cahora Bassa hydroelectric power plant in Mozambique and the Aggreko gas fired power station (in Mozambique) supplies up to 107MW of electricity to SA. In terms of electricity sales, Eskom has contracts with several Southern African Development Community (SADC) countries including Mozambique, Zimbabwe and Botswana.

Transmission and Distribution

Eskom claims it has more than 29 000km of transmission lines. These lines criss-cross South Africa with an area of 12 million square kilometres. Further, Eskom directly provides electricity to about 45% of all end users in South Africa whereas the rest is sold to redistributors including municipalities.

One of the biggest problems experienced by municipalities is delivery electricity to their communities, especially the smaller municipalities. They lack the technical skills needed to maintain and develop the electricity infrastructure in their communities. In this regard, government has responded with the formation of the Municipal Infrastructure Support Agency (MISA), a component of the Cooperative Governance and Traditional Affairs Department, who have been assisting these municipalities at various technical levels, however they themselves are finding that a lot more skills are required. In terms of funding, municipalities also rely on part of their selling price for electricity (the services component) to generate an income to sustain the municipality, hence resulting in them also facing financial challenges if they do not generate adequate income. Eskom has also indicated it is under severe financial stress and this would affect performance.

South Africa does have a programme for mass electrification of the country. The Integrated National Electrification Plan (INEP) established to broaden access to electricity has been focusing on strengthening electrification networks and building substations where necessary. According to the South Africa 20 year review, in less than 20 years the state has provided access to electricity to over 5.8 million households and reduced the percentage of households without electricity from about 50% in 1994 to 14% currently. This includes non-grid electrification, especially for remote areas.

Generally, there are problems here with aging and inadequate infrastructure and further, to achieve universal access, a lot of new infrastructure has to be put in place. In the last financial year the DoE planned to;

- Add 350km of new transmission lines to the grid
 - Upgrade an additional 220km of the transmission network
 - Build six new bulk sub-stations
 - Upgrade 10 existing bulk sub-stations
 - Electrify about 200 000 houses
 - Connect about 15 000 houses to non-grid electricity
- This is in addition to any emergency or planned work by Eskom and municipalities.

Eskom's customer base for electricity

According to Eskom, for the six month period till September 2013, Municipalities purchased 42.8% of the electricity sold by them, Industry, another 23.9%, Mining 14.5, Commercial and Agriculture 6.5%, foreign sales was 6.5%, Eskom's residential clients 5.1% and finally rail 1.4%.

Restructuring of the Electricity Sector

Regional Electricity Distributors

In 1997 the South African Government proposed a restructuring of the Electricity Distribution Industry. One of the outcomes was the creation of Regional Electricity Distributors (REDs). Here the idea was to combine Eskom's distribution business and the various municipal distribution units into six REDs. Hence the Department of Minerals and Energy created the Electricity Distribution Industry Holdings (EDI) in 2003 to manage and implement this plan and take control of all assets and the business of distribution in SA. However only one RED's was established, based in Cape Town and this subsequently collapsed. Government took a decision to review this process and for now EDI holding has be disbanded till an alternative to REDs is found.

Independent System and Market Operator Bill (ISMO)

The Electricity Regulation Act, 2006 (Act No. 4 of 2006) ("the ERA"), provides for private sector participation on electricity generation through a competitive process. Through the ERA, the Minister may promulgate regulations pertaining to, amongst others, private sector participation. To this effect, the Minister may promulgate regulations relating to new generation capacity, outlining the procurement process and the cost recovery mechanism thereafter.

Despite the provisions of this Act, the South African electricity industry has a monopolistic structure regulated by the National Energy Regulator of South Africa ("the Regulator"). This structure is not conducive for the independent purchase of power from the private

sector. There is a need for an independent structure focusing on issues pertaining to independent power generation such as procurement, buying of power and electricity dispatch.

The proposed objects of this Act are to provide for the incorporation of ISMO as a state-owned company that—

- (a) is financially viable and that will manage the system in an efficient manner;
- (b) will act as a trader of electricity to ISMO Customers in line with Government policy;
- (c) will prepare appropriate input into the planning of electricity supply and the transmission planning;
- (d) is responsible for the establishment, practice and maintenance of up-to-date contingency plans that will ensure continuity of control over, and integrity of, the integrated power system at all times;
- (e) is empowered to order the interruption of supply to preserve system integrity in times of power shortages;
- (f) is responsible for maintenance and coordination of outage schedules in line with international best practice and the Grid Code to ensure the safety, security and integrity of the integrated power system;
- (g) ensures efficient dispatch within the integrated power system; and
- (h) Manages electricity dispatch and tariff aggregation in respect of electricity sale by generators, and provide for matters related thereto.

The Independent System and Market Operator (ISMO) Bill was the only legislation handled by the PCE, the bill was compiled and submitted to the house for adoption but was not adopted during the 4th Parliament.

6.3. Department of Energy

6.3.1. Brief profile of the Department of Energy (DoE)

On 10 May 2009 President Zuma announced his new Cabinet and the appointment of, amongst others, the Minister of Energy. The new portfolios of some of the Ministers necessitated a re-organisation, renaming and establishment of new departments. Subsequent to the above announcement, the DoE was established following the split of the Department of Minerals and Energy, which resulted in two independent Departments.

The aim of the DoE is to formulate energy policies, regulator frameworks and legislation, and oversee their implementation to ensure energy security, promotion of environmentally-friendly energy carriers and access to affordable and reliable energy for all South Africans.

Vision 2014

A transformed and sustainable energy sector with universal access to modern energy carriers for all by 2014

Vision 2025

Improving the energy mix by having 30% clean energy by 2025

Mission

To regulate and transform the sector for the provision of secure, sustainable and affordable energy

Legislative Mandate

To ensure secure and sustainable provision of energy for socio-economic development

Strategic Plan

The Department's strategic plan seeks to deliver results along eight strategic objectives that include promoting energy security through reliable, clean, and affordable sources; universal access to energy sources, transformation of the energy sector, and strengthening the operations and management of the Department.

Strategic Objectives

"The strategic objectives of the Department of Energy expressed as desired end-states are as follows:

- Energy supply is secure and demand is well managed
- An efficient, competitive and responsive energy infrastructure network
- Improved energy regulation and competition
- Efficient and diverse energy mix for universal access within a transformed energy sector
- Environmental assets and natural resources protected and continually enhanced by cleaner energy technologies
- Mitigation against and adaptation to the impacts of climate change
- Good corporate governance for effective and efficient service delivery"

6.3.2 Legislative Mandate

The National Energy Act, 2008 (Act No. 34 of 2008)

The Act is the enabling legislation that empowers the Minister of Energy to ensure that diverse energy resources are available in sustainable quantities and at affordable prices in the South African economy to support economic growth and poverty alleviation, while also taking into account environmental considerations. The Act also provides for:

- Energy planning;
- Increased generation and consumption of renewable energy;
- Contingency energy supply;
- The holding of strategic energy feedstock and carriers;
- Adequate investment in appropriate upkeep and access to energy infrastructure;
- Measures for the furnishing of certain data and information regarding energy demand;
- Supply and generation; and
- The establishment of an institution to be responsible for the promotion of efficient generation and consumption of energy and energy research.

The Petroleum Products Act, 1977 (Act No. 120 of 1977), as amended

The Act provides for:

- measures in the saving of petroleum products and the economy in the cost of distribution thereof;
- the maintenance and control of a price thereof;
- the furnishing of certain information regarding petroleum products;
- the rendering of service of a particular kind or standard in connection with petroleum products;
- the licensing of persons involved in the manufacturing, wholesaling and retailing of prescribed petroleum products;
- promote the transformation of the South African petroleum and liquid fuels industry; and
- The promulgation of regulations relating to such licenses and matters incidental thereto.

The Electricity Regulation Act, 2006 (Act No. 4 of 2006), as amended

The Act repealed the Electricity Act, 1987 as amended (Act No. 41 of 1987), with the exception of section 5B, which provides for the funds of the Energy Regulator for the purpose of regulating the electricity industry. The Act establishes a national regulatory framework for the electricity supply industry and it introduces the National Energy Regulator as the custodian and enforcer of the national electricity regulatory framework. The Act also provides for licences and registration as the manner in which generation, transmission, distribution,

trading and the import and export of electricity are regulated. Section 34(1) empowers the Minister of Energy to make determinations for the establishment of Independent Power Producers (IPP) for the purpose of creating greater competition in the electricity generation sector, so as to increase the supply of electricity.

Legislation that directly mandates the DOE

- The Central Energy Fund Act, 1977 (Act No. 38 of 1977), as amended;
- The Nuclear Energy Act, 1999 (Act No. 46 of 1999);
- The National Nuclear Regulator Act, 1999 (Act No. 47 of 1999);
- The National Radioactive Waste Disposal Institute Act, 2008 (Act No. 53 of 2008);
- The Petroleum Pipelines Act, 2003 (Act No. 60 of 2003);
- The Petroleum Pipelines Levies Act, 2004 (Act No. 28 of 2004);
- The Gas Act, 2001 (Act No. 48 of 2001);
- The Gas Regulator Levies Act, 2002 (Act No. 75 of 2002);
- The National Energy Regulator Act, 2004 (Act No. 40 of 2004);
- The Abolition of the National Energy Council Act, 1991 (Act 95 of 1991);
- The Liquid Fuel And Oil Act Repeal Act, 1993 (Act 20 of 1993); and
- The Coal Act Repeal Act, 1991 (Act 124 of 1991).

Non-core legislation that also impacts on the DOE

- The National Environmental Management Act, 1999 (Act No. 107 of 1999),
- The Mineral and Petroleum Resources Development Act, 2002 (Act No. 28 of 2002),
- The Disaster Management Act, 2002, (Act No. 57 of 2002),
- The Hazardous Substances Act, 1973, (Act No. 16 of 1973),
- The National Ports Act, 2005 (Act No. 12 of 2005)

Key Policies that need to be finalized

Integrated Energy Plan

The Integrated Energy Plan (IEP) is "undertaken to determine the best way to meet the current and future energy services needed in the most efficient and socially beneficial manner"

It does this while considering the following factors:

- Maintaining control over economic costs
- Serving national imperatives like job creation and poverty alleviation
- Minimising the adverse impacts of the energy sector on the environment

It also looks at the relation of energy in the economy and guides the; development of energy policies, selection of technologies, guides the investment in and development of energy infrastructure and to propose alternative energy strategies.

Key national policies, e.g. the National Development Plan, New Growth Path and the Industrial Policy Action Plan, define a route for South Africa and the IEP indicated mechanisms need to be developed that allow feedback as to how the energy sector contributes to these imperatives and further, how energy can be optimally used to ensure SA remains competitive.

With regard to the above, the IEP identified eight key objectives which need to be considered and addressed. They are:

- Ensure the security of supply
- Minimise the cost of energy
- Increase access to energy
- Diversify supply sources and primary sources of energy
- Minimise emissions for the energy sector
- Promote energy efficiency in the economy
- Promote localization and technology transfer and the creation of jobs
- Promote the conservation of water

The Revision of the Integrated Resource Plan

The primary aim of the IRP is to determine the long term electricity demand and details how the demand should be met. This is in terms of generation capacity, type, timing and cost. This also in puts into other planning initiatives in other departments and initiatives e.g. agriculture, agriculture, economic development, trade, environmental management and climate change. One of the changes between IRP 2010 and the latest draft is that the predicted demand for electricity in the long term has been revised downwards. It also acknowledges that growth suggested in the NDP (at an average of 5.4% till 2030) but also acknowledges that there is a desire to shift the economic development away from energy intensive industries. It adopts a more flexible approach that allows to entry of gas into the energy mix (depending on development in this sector and acknowledges the uncertainty in the costs of nuclear capacity and future fuel costs (specifically coal and gas)

Other outstanding legislation and policies

Outstanding legislation and policies be made a priority and tracked, some of the outstanding legislation includes:

- The Gas Amendment Bill
- National Nuclear Regulator Amendment Bill

- Electricity Regulation Second Amendment Bill
- National Energy Regulator Amendment Bill
- Radioactive Management Fund Bill
- Nuclear Energy Amendment Bill

The Department of Energy should also expedite the conclusion of outstanding policy strategies and programmes in order to position itself in the forefront of energy policy and planning. These strategies and programmes should include the following:

- Strategic Fuel Policy,
- Energy Efficiency Strategy,
- Approach to Distributions Asset Management (ADAM),
- Restructuring of the electricity industry,
- Electricity Pricing Policy,
- Bio-Fuels Policy,
- Replacement of Regional Electricity Distributors (REDS),
- Free Basic Alternative Energy (FBAE),
- Cost Recovery Mechanism for cleaner fuels,
- Review of the Renewable Energy White Paper,
- Household Energy strategy.

6.3.3. Programmes of the Department of Energy

The Department has six programme areas: Administration; Energy Policy and Planning; Petroleum and Petroleum Products Regulation; Electrification and Energy Programmes and Project Management; Nuclear Energy and Clean Energy.

Programme 1: Administration

The purpose of the programme is to provide corporate, executive, financial management and accounting, information and communication technology, supply chain, asset management support to the Department, to ensure good corporate governance and compliance by Department and/or the Energy Sector.

Programme 2: Energy Policy and Planning

The purpose of the programme is to ensure evidence based planning, policy setting and investment decisions in the energy sector to improve the security of energy supply, regulation and competition.

Programme 3: Petroleum and Petroleum Products Regulation

The purpose of the programme is to manage the regulation of petroleum and petroleum products to ensure the optimum and orderly functioning of the petroleum industry to achieve government's development goals.

Programme 4: Electrification and Energy Programme and Project Management

The purpose of the programme to manage, coordinate and monitor programmes and projects focused on access to energy.

Programme 5: Nuclear Energy

The purpose of the programme is to manage the South African nuclear energy industry and control nuclear materials in terms of international obligations, and nuclear energy legislation and policies to ensure the peaceful use of nuclear energy.

Programme 6: Clean Energy

The purpose of the programme is to manage and facilitate the development and implementation of clean and renewable energy initiatives, as well as energy efficiency and demand side management initiatives.

Department of Energy - Total Budget Allocations since 2010**Table 3: DoE Budget Allocations**

R million	2010/11	2011/12	2012/13	2013/14	2014/15
Administration	121.6	192.7	216.8	212.8	244.1
Energy Policy & Planning	1607.2	1 541.9	1 545.3	45.0	52.6
Petroleum and Petroleum Products Regulation	24.1	27.2	44.4	69.3	82.7
Electrification & Energy Programme and Project Management	2 772.1	3 274.5	3 116.0	3 946.2	4 199.2
Nuclear Energy	612.3	642.3	643.2	730.8	850.5
Clean Energy	368.0	495.7	1 093.3	1 483.1	1 986.5
Total	5 505.4	6 174.3	6 659.0	6 487.2	7 415.6

Source: National Treasury (2014). Estimates of National Budget (pg 666)

6.4. State Owned Entities/State Owned Companies within the DoE

The Minister of Energy is responsible for overseeing the following State-Owned Entities (and their subsidiaries), which are either classified as Schedule 2 or 3A institutions in terms of the Public Finance Management Act, 1999 (Act 1 of 1999), as amended (PFMA):

Purpose

Provide related services in support of the Department's mandate through funded and non-funded statutory bodies and organisations

Measurable Objectives

Enhance the Department's objectives through policies and directives, promoting its legislative mandate and leading to the creation of an environment conducive to investment and the improvement of the quality of life of South Africans

Regulators

- **The National Nuclear Regulator (NNR)** - The purpose of the NNR, as outlined in section 5 of the National Nuclear Regulator Act 1999 is to essentially provide for the protection of persons, property and the environment against nuclear damage through the establishment of safety standards and regulatory practices.
- **The National Energy Regulator of South Africa (NERSA)** - The purpose of NERSA, as effectively outlined in section 4 of the National Energy Regulator Act, is to regulate the electricity, piped-gas and petroleum pipeline industries within the Republic of South Africa in terms of the Electricity Regulation Act, 2006 (Act No. 4 of 2006), the Gas Act, 2001 (Act No. 48 of 2001) and the Petroleum Pipelines Act, 2003 (Act No. 60 of 2003).
- **Petroleum Agency of South Africa (PASA)** - PASA focuses on the promotion, marketing and licensing of offshore and onshore exploration and production activities. Developments around the amendments to the MPRDA which will have a major impact on the future of the business are being tracked by CEF.
- **SA Radioactive Waste Disposal Institute (SARWDI)** – This entity has been established with the aim of managing radioactive waste in South Africa. To date the Board of Directors have been appointed and the DoE is in the process of appointing the Secretariate. The Board is still to be presented to the PCE.

Research and Development

- **The South African National Energy Development Institute (SANEDI)** - SANEDI's functions, as outlined in section 7(2) of the National Energy Act, are to: - direct, monitor and conduct applied energy research and development, demonstration and deployment as well as undertake specific measures to promote Energy Efficiency (EE) throughout the economy; and - establish a nationally focused energy research, development and innovation sector and undertake EE measures with a strong relevance for South Africa.
- **The South African Nuclear Energy Corporation (NECSA)** - NECSA's functions, as outlined in section 13 of the National Energy Act, are to: - undertake and promote research on nuclear energy, radiation sciences and technology; - process source, special nuclear and restricted material including uranium enrichment; and - collaborate with other entities.

Energy Security

- **South African Nuclear Energy Corporation (NECSA)** – NECSA's functions, as outlined in section 13 of the National Energy Act, are to: - undertake and promote research on nuclear energy, radiation sciences and technology; - process source, special nuclear and restricted material including uranium enrichment; and - collaborate with other entities
- **The Central Energy Fund (CEF) Group of Companies (SOC) Ltd** - CEF (SOC) Ltd is involved in the search for appropriate energy solutions to meet the future energy needs of South Africa, the Southern African Development Community and the sub-Saharan African region, including oil, gas, electrical power, solar energy, low-smoke fuels, biomass, wind and renewable energy sources. CEF also manages the operation and development of the oil and gas assets of the South African Government. CEF is also mandated to manage the Equalisation Fund, which collects levies from the retail sales of petroleum products to eliminate fluctuations in the retail price of liquid fuel and to give tariff protection to the synthetic fuel industry.
- **The Petroleum Oil and Gas Corporation of South Africa (SOC) Limited (PetroSA)** – PetroSA is the National Oil Company of South Africa and is registered as a commercial entity under South African law. PetroSA is a subsidiary of the CEF, which is wholly owned by the State and reports to the Department of Energy (DoE). The Company holds a portfolio of assets that spans the petroleum value chain, with all operations run according to world-class safety and environmental standards. PetroSA was formed in 2002 upon the merger of Soekor E and P (Pty) Limited, Mossgas (Pty) Limited and parts of the Strategic Fuel Fund, another subsidiary of CEF.
- **iGas** – iGas act as a state agency for the development of hydrocarbons gas industry in the sector in particular gas infrastructure development. The company invest, construct and operate hydrocarbon gas transmission pipelines and storage in the country in the quest to diversify South Africa's energy spectrum and invest in environmental clean energy.
- **Strategic Fuel Fund (SFF)** – the SFF manages South Africa's strategic crude oil reserves.

- **Oil Pollution Control SA** – OPCSA manages oil pollution prevention and control activities in Saldanha Bay and Ogies. It provide clean up services in the event of oil pollution incident.
- **African Exploration Mining and Finance Corporation (SOC) Limited** - The principal activities of the entity are as follows: To acquire and hold prospecting and mining rights; to perform geological exploration and bankable feasibility studies; to develop mines, and engage in mining operations. Cabinet has made a decision declaring AE a State-owned mining company and a stand-alone entity reporting to the Department of Mineral Resources (DMR). The Department of Energy and DMR are collaborating to manage the hiving off of AE from the CEF Group. This is expected to be completed in the next financial year.
- South African Supplier Development Agency (SASDA) (PTY) Limited
- Energy Development Corporation (EDC)

Electricity Distribution Industry (EDI) Holdings – EDI was a company wholly owned by the South African Government, was establishment in March 2003, through the then Department of Minerals and Energy, to facilitate the process of restructuring the electricity distribution industry in South Africa. As at the end of the 2012/13 financial year, all transactions towards the closing down of the company as directed by Cabinet on 08 December 2010 were finalized. The Department, in the 2012/13 year was awaiting the close-out audit report from the Auditor-General and the Board.

Non-Governmental organisations in Energy in SA

- There are various NGO's that operate in the Energy space in SA. They cover all the sectors in energy and range from environmental organisations, those that are for or against certain sources of energy and organisations that represent groups of end users. There are also civil groups representing community interests. They have a varying degrees of influence on the energy space in SA.

7. Strategic Objectives of the Committee

a) To facilitate the processing of legislation and review of policies

- Track and monitor the process of tabling of legislation and policies
- Process legislation as and when received
- Facilitate the formulation and review of the energy policies.
- Processing of international agreements, treaties and conventions

b) Oversee the capacity of the Department to deliver on its mandate

- Assist and improve the DoE and SOE's capacity and funding
- Improve on Equity Employment indicators (gender, race and disability)
- Monitor targeted training at the department and SOEs

c) Oversee the security of electricity supply

- Oversee the broadening of the energy mix
- Oversee the implementation of Five Point Plan
- Monitor progress in the electrification programme
- Oversee the restructuring of the electricity industry
- Oversee that the electricity distribution challenges are addressed

d) Oversee Energy Efficiency and Demand side Management programmes

- Oversee the effective implementation of the solar water heater programme
- Oversee and monitor the effective implementation of Energy Efficiency (EE) measures

e) Oversee the expansion of gas in the economy

- Oversee the development of gas importation and distribution infrastructure
- Oversee the fast tracking of legislation and policies affecting this sector
- Oversee Liquefied Petroleum Gas industry development
- Oversee the developments with regard to oil and gas in Operation Phakisa

f) Oversee the petroleum sector with regard to

- petroleum refining capacity
- Monitor the developments in the price of fuel
- Biofuels implementation
- Clean Fuel II implementation
- Strategic fuel stocks and storage facilities
- Monitor the processing of the Mineral and Petroleum Resource Development Act Amendments

g) Intensify oversight on State Owned Entities

- Oversee the improved oversight by DOE on its entities and the alignment of SOE programmes with DOE Policy directives
- Review the empowering legislation that mandate the Regulators
- Ensure the SoEs are correctly positioned and funded to deliver on their mandates

Further in terms of specific entities;

CEF and Entities

- Ensure that the outstanding restructuring of the Central Energy Fund is completed and ensure the review of its subsidiary companies are expedited to meet the future demands of South Africa
- Oversee that the cause of the financial challenges at these entities are identified and addressed.
- Oversee that CEF and its entities are optimally capitalized for growth.
- Ensure that PETROSA develops a clear strategy to address the gas supply constraints in terms of their operations.
- Oversee that the issue of strategic reserves at SFF Association is addressed.

NECSA

- Ensure that NECSA is correctly positioned in terms of legislation, funding and skills to actively participate in the nuclear new build programme.
- Oversee that NECSA explores mechanisms to generate most of its own funds.
- Oversee that the National Radioactive Waste Disposal Institute starts operating as a functional entity.

NWR

- The PCE needs to ensure that NNR has the requisite skills and resources to be able to perform robust regulatory oversight on the proposed nuclear new build programme.
- The PCE needs to ensure that the issue of "ownerless legacy sites" are addressed.

NERSA

- Oversee that the legislative mandate of NERSA is assessed and revised.

SANEDI

- Ensure that the mandate of SANEDI is revised.
- Oversee that the staffing challenges at SANEDI is addressed.

8. Strategic Objectives of the Committee - Indicators

Table 4: Annual Strategic Objectives of the Committee

STRATEGIC GOAL 1: Enhance Parliament's oversight and accountability over the work of the Executive to ensure implementation of the objectives of the Medium-Term Strategic Framework (MTSF) 2014-2019											
STRATEGIC OBJECTIVE	ACTIVITY	INDICATORS	DELIVERABLES	TARGETS							
				2015 /16	Q1	Q2	Q3	Q4	2016 /17	2017 /18	
Assist and improve the DoE and SOE's capacity and funding	Committee Meetings (budget, vote)	Minutes or report from the PCE as applicable	A set of recommendations from the Committee as applicable.	1	1	0	0	0	0	1	1
Monitor progress in the electrification programme	Committee Meetings (quarterly performance)	Minutes or report from the PCE as applicable	A set of recommendations from the Committee as applicable.	4	1	1	1	1	1	4	4
Oversee the restructuring of the electricity industry	Committee Meetings (Strat plan)	Minutes or report from the PCE as applicable	A set of recommendations from the Committee as applicable.	1	1	0	0	0	0	1	1
	Oversight visits	Gaining first-hand experience and engaging with stakeholders	A set of recommendations from the Committee as applicable.	1	0	1	0	0	0	0	0

stocks and storage facilities																			
Oversee the improved oversight by DOE on its entities and the alignment of SOE programmes with DOE Policy directives	Committee Meetings (Strat plan)	Minutes or report from the PCE as applicable	A set of recommendations from the Committee as applicable.	1	1	0	0	0	0	0	0	1	1	1					
Ensure the SOEs are correctly positioned and funded to deliver on their mandates	Committee Meetings (budget vote)	Minutes or report from the PCE as applicable	A set of recommendations from the Committee as applicable.	1	1	0	0	0	0	0	0	1	1	1					
Improve on Equity Employment indicators (gender, race and disability)	Committee Meetings (Annual report - BRRR)	Minutes or report from the PCE as applicable	A set of recommendations from the Committee as applicable.	1	0	0	0	1	0	0	0	1	1	1					
Monitor targeted training at the department and SOE	Committee Meetings (Strat plan)	Minutes or report from the PCE as applicable	A set of recommendations from the Committee as applicable.	1	1	0	0	0	0	0	0	1	1	1					

STRATEGIC OBJECTIVE	ACTIVITY	INDICATORS	DELIVERABLES	2015		TARGETS					
				/16	Q1	Q2	Q3	Q4	2016 /17	2017 /18	
STRATEGIC GOAL 2: Co-operate and collaborate with other spheres of government on matters of common interest and ensure co-operative and sound intergovernmental relations											
Monitor the developments in the price of fuel	Oversight visit	Gaining first-hand experience and engaging with stakeholders	A set of recommendations from the Committee as applicable.	0	0	0	0	0	0	1	0
	Committee Meetings	Minutes or report from the PCE as applicable	A set of recommendations from the Committee as applicable.	1	0	1	0	0	0	0	0
STRATEGIC GOAL 3: Enhanced public involvement in the processes of Parliament to realise participatory democracy through the implementation of the public involvement model by 2019											
Oversee the implementation of Five Point Plan	Committee Meetings	Minutes or report from the PCE as applicable	A set of recommendations from the Committee as applicable.	1	0	0	1	0	0	1	1
Oversee the broadening of the energy mix	Committee Meetings (quarterly performance)	Minutes or report from the PCE as applicable	A set of recommendations from the Committee as applicable.	4	1	1	1	1	1	4	4
Oversee the developments with regard to oil and gas in Operation Phakisa	Committee Meetings	Minutes or report from the PCE as applicable	A set of recommendations from the Committee as applicable.	1	0	0	1	0	1	1	1
STRATEGIC GOAL 3: Enhanced public involvement in the processes of Parliament to realise participatory democracy through the implementation of the public involvement model by 2019											
	ACTIVITY	INDICATORS	DELIVERABLES	TARGETS							

STRATEGIC OBJECTIVE	ACTIVITY	INDICATORS	DELIVERABLES	2015	TARGETS				2016	2017		
				/16	Q1	Q2	Q3	Q4	/17	/18		
Oversee the effective implementation of the solar water heater programme	Committee Meetings (quarterly performance)	Minutes or report from the PCE as applicable	A set of recommendations from the Committee as applicable.	4	1	1	1	1	4	4		
				Oversight visits	Gaining first-hand experience and engaging with stakeholders	A set of recommendations from the Committee as applicable.	0	0	0	0	1	0
				Committee Meetings (Annual report - BRRR)	Minutes or report from the PCE as applicable	A set of recommendations from the Committee as applicable.	1	0	0	1	0	1
Oversee that the electricity distribution challenges are addressed	Oversight visits	Gaining first-hand experience and engaging with stakeholders	A set of recommendations from the Committee as applicable.	1	0	1	0	0	1	0		
STRATEGIC GOAL 4: Enhanced parliamentary international engagement and co-operation												
STRATEGIC OBJECTIVE	ACTIVITY	INDICATORS	DELIVERABLES	2015	TARGETS				2016	2017		
Processing of international agreements, treaties and conventions	When presented to the PCE	A set of recommendations from the Committee as applicable.	The treaty, agreement or convention is ratified or not	/16	Q1	Q2	Q3	Q4	/17	/18		

Review the empowering legislation that mandate the Regulators	Tabling of legislation	Meetings of the PCE where the legislation is deliberated	presentations or annual reports presentations Report of the Committee ATC'ed	2	0	0	0	2	1	0
	Public Hearing	Oral and written submissions received	Committee report	2	0	0	0	2	1	0

9. Budget

Table 5: Projected expenditure 2015/16 (1 April 2015 – 31 March 2016)

Expenditure item	Estimated Budget 2015/16	Estimated 2016/17	Estimated 2017/18
Committee Meetings	118050.00	180000.00	150000.00
Oversight Visits	416589.00	700000.00	700000.00
Newspaper Adverts	334000.00	1002000.00	0
Chairperson's budget	20000.00	20000.00	20000.00
International Study Tours	0	0	1200000.00
Total expenditure	888639.00	1902000.00	2070000.00

Additional Information

- Use average cost per meeting
- Late transport – average number of members that normally require transport when there are late meetings
- Venue outside Parliament – number of times the Committee will hold meetings outside Parliament