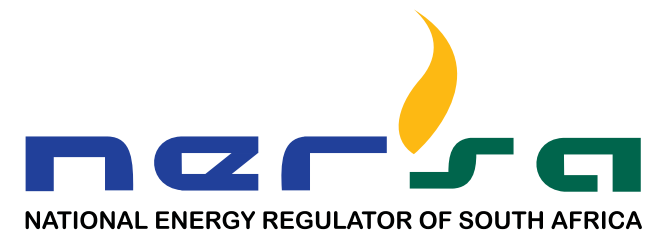


STRATEGIC PLAN
2020/21 - 2024/25

ANNUAL PERFORMANCE PLAN
2020/21 - 2022/23





STRATEGIC PLAN

2020/21 - 2024/25

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STATEMENT BY THE CHAIRPERSON

The period covered in this Strategic Plan coincides with the start of a new decade, which ignites a sense of new beginnings, new ideas, new challenges and new opportunities. In the development of this Plan, the Energy Regulator took cognisance of where our mandate fits into the bigger picture of energy.

In regulating the energy industry, we acknowledge the pivotal role it plays in economic growth. In modern economies, economic growth is closely associated with increasing energy consumption. The availability of secure, reliable and affordable energy supply is essential for industrial processes and the provision of public services such as lighting, heating, cooking, information and communication technology, and mobility.

NERSA does not function in isolation and needs to take cognisance of the developments, trends and challenges within the global energy environment. This will assist in deciding on appropriate response by incorporating any relevant trends and energy-related developments into its strategy.

The global energy system is undergoing unprecedented change, driven by forces such as technological innovation, changes in consumption patterns, supply dynamics and policy shifts. These forces offer opportunities to resolve the challenges that the global energy system faces today, namely:

- providing energy access to the more than one billion people who lack it;
- meeting demand for an additional two billion people by 2050 while delivering that energy at an affordable cost; and
- ensuring that the carbon and emissions footprint decline.

In addition, the geopolitical landscape of energy is quickly shifting and environmental concerns poses a serious challenge. At the same time, the economics of competing energy sources have changed, and the advent of the Fourth Industrial Revolution technologies have enabled new business models, while making others obsolete. The latter has created significant uncertainty about the pace and destination of the transformation, making a strong case for a systemic, multi-stakeholder approach that increases the transparency of the enablers and reforms needed for

countries to achieve an effective energy transition. It is important to note is that despite the continued rapid growth in renewable energy last year, it provided only a third of the required increase in energy generation, with coal providing a broadly similar contribution. The increasing use of coal within the energy sector is estimated to have more than accounted for the entire growth of global coal consumption last year. Overall, the electricity sector is estimated to have absorbed approximately fifty percent growth in primary energy in 2018 and accounted for approximately fifty percent of the increase in carbon emissions.

Over the next 20 years, the global energy system will face a critical challenge in respect of decarbonising the power sector while at the same time endeavouring to meet the rapid increase in the demand for power, especially in developing countries. Renewable energy has a vital role to play in meeting that challenge, but it is unlikely to be able to do so on its own. A variety of different technologies and fuels are likely to be required, including extensive coal-to-gas switching and the widespread deployment of carbon capture, use and storage.

With regard to the industries that is regulated by NERSA, the following should be noted:

- Globally the dependence on electricity is growing and society is becoming more and dependent on the use of electricity for the sustainability of life, as they know it. In addition, electricity is the fastest-growing source of final energy demand, and over the next 25 years, it will continue to outpace energy consumption as a whole.
- Currently renewables are the world's fastest-growing energy source and renewable energy consumption is expected to increase by an average of 2.6% per year up to 2040.
- Natural gas is expected to grow faster than other fossil fuels in the next two decades. Abundant natural gas resources and robust production, including rising supplies of tight gas, shale gas, and coalbed methane, will contribute to the strong competitive position of natural gas. The global interest in LNG power generation is increasing. There is also a growing demand for LNG as a bunkering fuel worldwide, albeit slowly.
- With regard to liquid fuels (mostly petroleum based) the projections are that it will remain the largest source of world energy consumption, the liquids share of world

market energy consumption will fall to 30% in 2040. Contributing to the decline are rising oil prices in the long term, which will lead many energy users to adopt more energy efficient technologies and to switch away from liquid fuels.

- Even though the consumption of non-fossil fuels is expected to grow faster than the consumption of fossil fuels, it is projected that fossil fuels will still account for 78% of energy use in 2040.

With regard to continental developments, Sub-Saharan Africa accounts for 4.5% of global primary energy demand. Energy demand is very low. However, there are several factors pointing towards potentially rapid and prolonged growth in demand: strong economic expansion; increasing urbanisation; industrialisation and modernisation; a burgeoning middle class in many countries; as well as a legacy of unmet energy demand. Bioenergy demand will increase by 40% in absolute terms by 2040, exacerbating stress on the forestry stock. The sub-Saharan Africa power system is expanding rapidly, with generation capacity quadrupling to 385 GW. The power mix becomes more diverse, with coal (mainly South Africa) and hydropower (all regions), being joined by greater use of gas (Nigeria, Mozambique, Tanzania), solar (South Africa and Nigeria) and geothermal (East Africa).

The share of renewables in total capacity more than doubled to 44%. Natural gas resource-holders can power domestic economic development and boost export revenues, but only if the right regulation, prices and infrastructure are in place. It is predicted that natural gas will nearly triple its share of the energy mix in Africa to 11% by 2040.

The Southern African region is relatively well endowed with energy resources. It has vast energy potential from solar, wind, nuclear, hydro, thermal, gas and petroleum sources in several countries. However, biomass is by far the largest source of energy in most regional countries. Electricity, as the dominant source of energy in the region, is generated mainly through thermal or hydroelectric resources. The coal industry is the backbone of power generation in the region and a significant share of the resource is allocated for export. The region has a large reserve of low-cost hydroelectricity in the north [especially Inga Reservoir in the Democratic Republic of Congo (DRC)] and Kariba

Dam on the Zambia/Zimbabwe border in the middle of the regional system, as well as large reserves of cheap coal in Botswana, Mozambique, South Africa and Zimbabwe.

Natural gas is becoming more significant to the region's energy sector, as Mozambique, Namibia, South Africa and Tanzania are developing the natural gas fields in their respective countries. New natural gas discoveries by international oil companies in Mozambique and Tanzania during the past decade have ignited investor interest in this previously under-explored region.

Furthermore, the region has some of the most significant known reserves of uranium. The mineral is being mined in Namibia and South Africa for use as fuel for nuclear power plants while exploration is underway in Botswana and Zimbabwe. Nuclear technology is included in the electricity sub-sector, but it must be demonstrated that nuclear power can be a safe electricity generation option and the confidence of the population and governments must be won to endorse nuclear energy deployment in the SADC region. Only South Africa has nuclear capacity, with tentative plans for a new nuclear programme.

As we are planning going into the new decade, we need to acknowledge the developments that took place in South Africa since we published our previous Strategic Plan. The country has been able to commit to a total of 18 000MW of new generation capacity. Coal will remain a key factor in electricity generation in South Africa in the near future. Government decided to extend Koeberg's design life and the expansion of the nuclear power programme into the future in order to ensure that nuclear power remains a factor in the energy mix. Gas to power technologies provide the flexibility required to complement renewable energy. Exploration to assess the magnitude of local recoverable shale and coastal gas are being pursued. Co-operation and partnerships with neighbouring countries is critical for South Africa.

The Government, through the National Development Plan, envisages that, by 2030, South Africa will have an energy sector that provides reliable and efficient energy service at competitive rates; that is socially equitable through expanded access to energy at affordable tariffs; and that is environmentally sustainable through reduced emissions and pollution.



In carrying out its mandate, NERSA endeavours to facilitate the availability of reliable, affordable and clean energy to which will lead to sustainable economic and social development. Therefore, contributing to the economic growth of our country through the effective and efficient regulation is a priority for the Energy Regulator. A critical factor that affects the economy of a country is the cost of energy. In the case of South Africa, where electricity is the main source of energy, the cost of electricity is paramount. NERSA therefore have to, in collaboration with key stakeholders, consider the best way to provide affordable electricity.

Another priority for NERSA is the availability of secure, adequate and reliable energy supply. The challenges South Africa experienced in the last few years with load shedding and unplanned power outages accentuated the importance of the reliable supply of energy, because it severely affected all sectors of society. NERSA is committed to collaborate with Government and all stakeholders to address this challenge, within the parameters of its mandate.

On 7 February 2019, the Honourable President Cyril Ramaphosa announced in his State of the Nation Address that Government “we shall immediately embark on a process of establishing three separate entities – Generation, Transmission and Distribution – under Eskom Holdings”. In this regard, NERSA will investigate what the most appropriate regulatory framework would be for the licensing of the restructured electricity supply industry following the unbundling of Eskom.

The pivotal role that NERSA plays in the energy sector is underpinned by its mandate that is enshrined in its founding legislation and is aligned to the objectives of our government. In regulating the electricity, piped-gas and petroleum pipelines industries, NERSA adheres to the regulatory principles of transparency; neutrality; consistency and predictability; independence; accountability; integrity; efficiency; and public interest.

NERSA will continue to align its regulatory mechanisms with the transformation of the energy sector by ensuring the development of a sustainable energy mix that comprises coal, solar, wind, hydro, gas and nuclear energy. NERSA will also continue

to execute its mandate in such a manner that the country’s energy constraints are addressed in order to create a conducive environment for growth and to endeavour to strike a fair balance between the interests of consumers on the one hand and regulated entities on the other hand.

I would like to take this opportunity to acknowledge the important work that the Members of the Energy Regulator, the management team and staff are executing and would like to encourage a collective and innovative spirit in implementing the legislative mandate of the Energy Regulator and future strategic programmes.



Jacob RD Modise

Chairperson of the Energy Regulator

STATEMENT BY THE CHIEF EXECUTIVE OFFICER

The National Energy Regulator (NERSA) was established on 1 October 2005 on terms of the National Energy Regulator Act, 2004 (Act No. 40 of 2004). Its mandate is to regulate the electricity industry in terms of the Electricity Regulation Act, 2006 (Act No. 4 of 2006), the piped-gas industry in terms of the Gas Act, 2001 (Act No. 48 of 2001), and the petroleum pipelines industry in terms of the Petroleum Pipelines Act, 2003 (Act No. 60 of 2003).

The mandate of NERSA, as contained in the relevant legislation, is summarised as follows:

- Issuing of licences and setting pertinent conditions;
- Setting and/or approving tariffs and prices;
- Monitoring and enforcing compliance with licence conditions;
- Dispute resolution including mediation, arbitration and the handling of complaints;
- Gathering, storing and disseminating industry information;
- Setting of rules, guidelines and codes for the regulation of the three industries;
- Determination of conditions of supply and applicable standards; and
- Registration of import and production activities.

In carrying out its mandate, NERSA endeavours to achieve its vision to be a recognised world-class leader in energy regulation. NERSA is expected to implement its mandate and to take the necessary regulatory decisions proactively in anticipation of and in response to the changing circumstances in the energy industry. The role of NERSA is to ensure the development and sustainability of the electricity, piped-gas and petroleum pipelines industries, while facilitating the affordability of and accessibility to these industries to balance the economic interests of all stakeholders to ensure sustainable socio-economic development of South Africa and a better life for all.

During the previous planning period, the Regulator upheld its regulatory principles of transparency, neutrality, consistency and predictability, independence, accountability and integrity in regulating the electricity, piped-gas and petroleum pipelines

industries. In addition, NERSA's focus was the continued alignment of its regulatory mechanisms with the transformation of the energy sector by ensuring the development of a sustainable energy mix.

The strategy of NERSA in the previous reporting period was aligned towards the realisation of its mission and vision and emphasising NERSA as a key enabler in advancing economic growth and social development within South Africa. The Regulator continued to ensure the orderly development in the energy sector, mainly through licensing, setting and approving of prices and tariffs, compliance monitoring and enforcement, and dispute resolution in the electricity, piped-gas and petroleum pipelines industries. In addition, NERSA also commenced with a process to contribute towards the transformation of the energy industry, within the ambit of our mandate.

NERSA is very proud to have been able to achieve consecutive clean audit reports during the past five years, which is a reflection of the strength and integrity of its corporate governance structure.

In developing this Strategic Plan, the mandate of NERSA as well as key policy priorities were taken into account. The strategic focus stated in this Strategic Plan is in line with and in support of one of the key priorities derived from the Electoral Mandate and the State of the Nation Address, namely Economic Transformation and Job Creation.

It also includes the National Development Plan (NDP) which is a plan for the country to eliminate poverty and reduce inequality by 2030 through uniting South Africans, unleashing the energies of its citizens, growing an inclusive economy, building capabilities, enhancing the capability of the state and leaders working together to solve complex problems.

In view of the aforementioned, NERSA remains committed to increasing delivery on its mandate as well as evaluating the impact of our actions.



Specific outcomes were identified that will guide the Regulator's programmes for the next five years and are summarised as follows in respect of each of the regulated industries:

Electricity Industry

- Accessible and affordable electricity for all citizens.
- Energy supply that is certain and secure for current and future user needs through the orderly development and operation of the electricity supply infrastructure.
- A regulatory environment that facilitates investment in electricity infrastructure.
- Regulatory certainty within the electricity industry.

Piped-Gas Industry

- Access to competitive gas prices and gas services.
- Efficient, sustainable and orderly development of the piped-gas industry aimed at security of supply.
- A regulatory environment that facilitates investment in piped-gas infrastructure.
- A competitive piped-gas industry.
- Regulatory certainty within the piped-gas industry.

Petroleum Pipelines Industry

- Access to petroleum infrastructure.
- Efficient, sustainable and orderly development of a transformed petroleum pipelines industry aimed at security of supply.
- A regulatory environment that provides regulatory certainty and facilitates investment in petroleum pipeline infrastructure.
- A competitive petroleum pipelines industry.

The organisational outcome is "An enabling environment for the benefit of internal and external stakeholders with a skilled workforce that is empowered to work in a complex and ambiguous environment."

The achievement of these outcomes will be enabled through, among others, revised regulatory methodologies and rules; continued monitoring of licensees' performance; contributing towards the restructuring of the energy industry; periodic assessment of adequacy of competition; decreasing regulatory burden; improved critical business and regulatory processes.

We believe the aforementioned will enable NERSA to contribute towards addressing the challenges identified by the Department of Mineral Resources and Energy, namely the impact of high electricity prices and the security of energy supply.

NERSA will continue to place emphasis on facilitating the entry of new players into the energy sector, particularly in the light of the generally monopolistic nature of the electricity, piped-gas and petroleum pipelines industries.

Our overall aim is that the impact of implementing this Strategic Plan is to facilitate a secure, reliable, affordable, sustainable, competitive and transformed energy industry, which contributes to the economic growth of South Africa. In order to achieve this NERSA places a high premium on capacity building of its staff complement. In addition to the training and development for staff members, NERSA has been and will continue to run successful internship and learnership programmes.

NERSA is fully committed to the implementation of this Strategic Plan, with the strategic guidance and support of the Energy Regulator. I would like to take this opportunity to acknowledge the important work that the staff are executing and would like to encourage an innovative and collaborative spirit in implementing the legislative mandate of the Energy Regulator and future strategic programmes.



Chris Forlee

Chief Executive Officer of the Energy Regulator

OFFICIAL SIGN-OFF

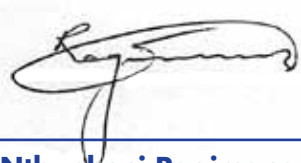
It is hereby certified that this Strategic Plan:

- was developed by the Executive Management of NERSA under the guidance of the Energy Regulator;
- takes into account all the relevant policies, legislation and other mandates for which the Energy Regulator is responsible; and
- accurately reflects the impact, outcomes and outputs that the Energy Regulator will endeavour to achieve over the period 2020/21 – 2024/25.



Gerda Gräbe

Senior Manager: Strategic Planning and Monitoring



Nthupheni Ragimana

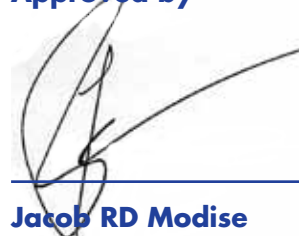
Acting Chief Financial Officer



Christopher Forlee

Chief Executive Officer (Accounting Officer)

Approved by



Jacob RD Modise

Chairperson (on behalf of the Accounting Authority)



ACRONYMS AND ABBREVIATIONS

Acronym / Abbreviation	Stands for
AFDB	African Development Bank
AFUR	African Forum for Utility Regulators
APP	Annual Performance Plan
B-BBEE	Broad-Based Black Economic Empowerment
CAGR	Compound Annual Growth Rate
CBM	Coal Bed Methane
CCGT	Closed Cycle Gas Turbine
CNG	Compressed Natural Gas
CPI	Consumer Price Index
CTL	Coal-to-Liquid
DJP	Durban-to-Johannesburg Pipeline
DMRE	Department of Mineral Resources and Energy
EEDSM	Energy Efficiency and Demand Side Management
ELR	Electricity Regulation
EPP	Electricity Pricing Policy
ESI	Electricity Supply Industry
FBE	Free Basic Electricity
FID	Final Investment Decision
FLNG	Floating Liquefied Natural Gas
GAR	Piped-Gas Regulation
GDP	Gross Domestic Product
GHG	Greenhouse Gases
GJ	Gigajoule
GSA	Gas Supply Agreement

Acronym / Abbreviation	Stands for
GTL	Gas-to-Liquid
GUMP	Gas Utilisation Master Plan
HDI/HDSA	Historically Disadvantaged Individuals/South Africans
IBT	Inclining Block Tariff
ICT	Information and Communication Technologies
IDM	Integrated Demand Management
IEA	International Energy Agency
IEP	Integrated Energy Plan
IGU	International Gas Union
IPAP	Industrial Policy Action Plan
IPP	Independent Power Producer
IRP	Integrated Resource Plan
Ke	Cost of Equity
LNG	Liquefied Natural Gas
MCEP	Manufacturing Competitive Enhancement Programme
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MPP	Multi-Product Pipeline
MTEF	Medium-Term Expenditure Framework
Mtoe	Million Tonnes of Oil Equivalent
MTPA	Metric Tons Per Annum
MTSF	Medium-Term Strategic Framework
MW	Megawatt
NDP	National Development Plan

Acronym / Abbreviation	Stands for	Acronym / Abbreviation	Stands for
NERSA	National Energy Regulator of South Africa	SACREEE	SADC Centre for Renewable Energy, Energy and Efficiency
NIPF	National Industrial Policy Framework	SADC	Southern African Development Community
NMPP	New Multi-Product Pipeline	SAPIA	South Africa Petroleum Industry Association
NFI	Non-Financial Information	SAPP	Southern African Power Pool
OCGT	Open Cycle Gas Turbine	SCOA	Standard Chart of Accounts
OECD	Organisation for Economic Co-operation and Development	SFF	Strategic Fuel Fund
PASA	Petroleum Association of South Africa	SIP	Strategic Integrated Project
PE(R)STEL	Political, Economic, Regulatory, Social, Technological, Environmental and Legal	SQAM	Standards, Quality Assurance, Accreditation and Metrology
PICC	Presidential Infrastructure Coordinating Committee		
PFMA	Public Finance Management Act, 1999 (Act No. 1 of 1999)		
PPA	Power Purchase Agreement		
PPR	Petroleum Pipelines Regulation		
PV	Photovoltaic		
REIPP	Renewable Energy Independent Power Producer		
REIPPPP	Renewable Energy Independent Power Producer Procurement Programme		
RERA	Regional Electricity Regulatory Association		
RESAP	Renewable Energy Strategy and Action Plan		
RIA	Regulatory Impact Assessment		
ROMPCO	Republic of Mozambique Pipeline Investment Company		



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PART A: OUR MANDATE

1. CONSTITUTIONAL MANDATE

- 1.1. The Energy Regulator is listed as a public entity in terms of Schedule 3A of the Public Finance Management Act, 1999 (Act No. 1 of 1999).
- 1.2. The Constitution of South Africa is applicable to NERSA in conduct of its business, with specific reference to the Bill of Rights.
- 1.3. NERSA's responsibility is carried out through licensing, setting or approving of prices and tariffs, compliance monitoring and enforcement, and dispute resolution in the electricity, piped-gas and petroleum pipelines industries. It facilitates, through its regulatory functions, the construction of power stations, pipelines and storage facilities to ensure continued access to energy and security of supply in the country. NERSA's commitment to the protection of the environment and the growth of cleaner, more resource-efficient production of energy is built into its regulatory functions.

2. LEGISLATIVE AND POLICY MANDATES

2.1. RELEVANT LEGISLATION

- 2.1.1. NERSA is the regulatory authority established in terms of the National Energy Regulator Act, 2004 (Act No. 40 of 2004) with the mandate to 'undertake the functions of the National Electricity Regulator as set out in the Electricity Regulation Act, 2006 (Act No. 4 of 2006), undertake the functions of the Gas Regulator as set out in the Gas Act, 2001 (Act No. 48 of 2001), undertake the functions of the Petroleum Pipelines Regulatory Authority as set out in the Petroleum Pipelines Act, 2003 (Act No. 60 of 2003) and to perform such other functions as may be assigned to it by or under these Acts'.

- 2.1.2. NERSA's mandate is anchored in the following four primary Acts:
 - the National Energy Regulator Act, 2004 (Act No. 40 of 2004)
 - the Electricity Regulation Act, 2006 (Act No. 4 of 2006) (ERA);
 - the Gas Act, 2001 (Act No. 48 of 2001); and
 - the Petroleum Pipelines Act, 2003 (Act No. 60 of 2003).
- 2.1.3. The regulatory functions of NERSA, as contained in the legislation relevant for the regulation of the energy industry, are summarised as follows:
 - issuing of licences with conditions;
 - setting and/or approving tariffs and prices;
 - monitoring and enforcing compliance with licence conditions;
 - dispute resolution including mediation, arbitration and the handling of complaints;
 - gathering, storing and disseminating industry information;
 - setting of rules, guidelines and codes for the regulation of the three industries;
 - determining of conditions of supply and applicable standards;
 - consulting with government departments and other bodies with regard to industry development and regarding any matter contemplated in the three industry Acts;
 - expropriating land as necessary to meet the objectives of the relevant legislation;
 - registration of import and production facilities; and
 - performing any activity incidental to the execution of its duties
- 2.1.4. Each one of the industry-specific Acts that NERSA is deriving its mandate from, has certain objects that should be achieved if NERSA carries out its functions as defined in these Acts.
 - a) The objects of the **Electricity Regulation Act** as stipulated in section 2 of the Act, are to:



- achieve the efficient, effective, sustainable and orderly development and operation of electricity supply infrastructure in South Africa;
- ensure that the interests and needs of present and future electricity customers and end users are safeguarded and met, having regard to the governance, efficiency, effectiveness and long-term sustainability of the electricity supply industry within the broader context of economic energy regulation in the Republic;
- facilitate investment in the electricity supply industry;
- facilitate universal access to electricity;
- promote the use of diverse energy sources and energy efficiency;
- promote competitiveness and customer and end user choice; and
- facilitate a fair balance between the interests of customers and end users, licensees, investors in the electricity supply industry and the public.

b) The objects of the **Gas Act** as stipulated in section 2 of the Act, are to:

- promote the efficient, effective, sustainable and orderly development and operation of gas transmission, storage, distribution, liquefaction and re-gasification facilities and the provision of efficient, effective and sustainable gas transmission, storage, distribution, liquefaction, re-gasification and trading services;
- facilitate investment in the gas industry;
- ensure the safe, efficient, economic and environmentally responsible transmission, distribution, storage, liquefaction and re-gasification of gas;
- promote companies in the gas industry that are owned or controlled by historically disadvantaged South Africans by means of licence conditions so as to enable them to become competitive;
- ensure that gas transmission, storage, distribution, trading, liquefaction and re-gasification services are provided on an equitable basis and that the interests and needs of all parties concerned are taken into consideration;
- promote skills development among employees in the gas industry;
- promote employment equity in the gas industry;
- promote the development of competitive markets for gas and gas services;

- facilitate gas trade between the Republic and other countries; and
- promote access to gas in an affordable and safe manner.

c) The objects of the **Petroleum Pipelines Act** as stipulated in section 2 of the Act, are to:

- promote competition in the construction and operation of petroleum pipelines, loading facilities and storage facilities;
- promote the efficient, effective, sustainable and orderly development, operation and use of petroleum pipelines, loading facilities and storage facilities;
- ensure the safe, efficient, economic and environmentally responsible transport, loading and storage of petroleum;
- promote equitable access to petroleum pipelines, loading facilities and storage facilities;
- facilitate investment in the petroleum pipeline industry;
- provide for the security of petroleum pipelines and related infrastructure;
- promote companies in the petroleum pipeline industry that are owned or controlled by historically disadvantaged South Africans, by means of licence conditions to enable them to become competitive;
- promote the development of competitive markets for petroleum products;
- promote access to affordable petroleum products; and
- ensure an appropriate supply of petroleum to meet market requirements.

d) The object of the **National Energy Regulator Act** as stipulated in section 1 of the Act, is to:

- establish a National Energy Regulator for the regulation of the electricity, piped-gas and petroleum pipelines industries

2.1.5. The Electricity Regulation Act, the Gas Act and the Petroleum Pipelines Act gives the Minister of Mineral Resources and Energy (the Minister) the power

to make Regulations in terms of which NERSA must discharge its mandate.

a) The Minister has published the following **Electricity Industry Regulations**:

- the Electricity Regulations for Expropriation on behalf of a licensee;
- the Electricity Regulations for compulsory norms and standard for reticulation services;
- the Electricity Regulations on deviation from set or approved tariffs; and
- the Revised New Generation Regulations were issued on 4 May 2011.

b) The Minister has published the following **Piped-Gas Industry Regulations** on 20 April 2007, which deal with, amongst others:

- third-party access to transmission and storage facilities;
- expropriation procedures and timelines;
- mechanisms to promote historically disadvantaged South Africans;
- mediation and arbitration procedures; and
- price regulation principles and procedures.

c) The Minister has published the following **Petroleum Pipelines Industry Regulations** on 4 April 2008. The Regulations deal with, amongst others:

- third-party access to storage facilities;
- setting of tariffs for petroleum pipelines and approval of tariffs for petroleum loading and storage facilities;
- expropriation procedures and timelines;
- mechanisms to promote historically disadvantaged South Africans; and
- mediation and arbitration procedures.

2.1.6. NERSA derives its revenue by, amongst others, imposing prescribed levies on the regulated industries following a prescribed transparent procedure. In this regard, the following Acts govern the imposition of such levies:

- the Gas Regulator Levies Act, 2002 (Act No. 75 of 2002);
- the Petroleum Pipelines Levies Act, 2004 (Act No. 28 of 2004); and

- section 5B of the Electricity Act, 1987 (Act No. 41 of 1987).

2.1.7. Apart from the afore-mentioned industry-specific legislation that anchors NERSA's mandate and the imposition of levies, the following facilitating and foundational legislation are also applicable to NERSA's conduct of its business:

- the Public Finance Management Act, 1999 (Act No. 1 of 1999) (PFMA), which specifies the accounting of NERSA as a Section 3A Public Entity;
- the Promotion of Access to Information Act, 2000 (Act No. 2 of 2000) (PAIA), which determines the way that NERSA has to treat access to information;
- the Promotion of Administrative Justice Act, 2000 (Act No. 3 of 2000) (PAJA), which determines just administrative action of NERSA;
- the Protection of Personal Information, 2013 (Act No 4 of 2013), which determines the way that NERSA has to treat personal information; and
- all other applicable laws of the Republic of South Africa.

2.2. RELEVANT POLICIES

NERSA's mandate is further derived from published government policies and regulations developed by the Minister in terms of the Electricity Regulation Act, Gas Act and Petroleum Pipelines Act. As outlined in these legislative prescripts, NERSA must make decisions that are not at variance with published government policy. The relevant applicable policies are:

- White Paper on Energy Policy for South Africa of 1998;
- Electricity Pricing Policy (EPP) of the South African Electricity Supply Industry;
- Free Basic Electricity Policy;
- White Paper on Renewable Energy Policy for South Africa of 2003; and
- Energy Security



3. INSTITUTIONAL POLICIES AND STRATEGIES OVER THE FIVE-YEAR PLANNING PERIOD

- 3.1. Although policy formulation is outside of NERSA's realm of authority, specific policy gaps are continuously identified that require ongoing dialogue and strategic engagement with the Department of Mineral Resources and Energy in order to ensure that there is alignment between NERSA's strategic direction and the Department's policy thrusts.
- 3.2. In the previous five-year planning period, NERSA has seen that there are developments in the three industries that are not covered by the current industry-specific Acts. This requires a review of the regulatory legislation.
- 3.3. In addition to its mandate as per the legislation mentioned in the previous section, the Energy Regulator's decisions are informed by published policies of government. Within the parameters of NERSA's mandate and the resultant functions, NERSA contributes towards critical government priorities and programmes. Below is a summary of NERSA's contributions towards the –
- enabling milestones in the National Development Plan (NDP);
 - strategic integrated projects in the National Infrastructure Plan; and
 - seven priorities announced by the Honourable President, Mr Cyril Ramaphosa during the State of the Nation Address (SONA) in Parliament on 20 June 2019

3.3.1. NERSA'S CONTRIBUTION TO THE NATIONAL DEVELOPMENT PLAN

The National Development Plan (NDP) is a plan for the country to eliminate poverty and reduce inequality by 2030 through uniting South Africans, unleashing the energies of its citizens, growing an inclusive economy, building capabilities, enhancing the capability of the state and leaders working together to solve complex problems. The high-level objectives of the NDP are to:

- reduce the number of people who live in household with a monthly income below r419 per person (in 2009 prices) from 39% to zero; and
- reduce inequality, as measured by the Gini Coefficient, from 0.69 to 0.6.

Chapter 4 of the NDP deals with Economic infrastructure – the foundation of social and economic development. This chapter places emphasis on the need for South Africa to maintain and expand, among others, its electricity infrastructure in order to support economic growth and social development goals. In respect of the regulation of the energy sector, NERSA noted that the NDP calls for more emphasis on stimulating market competition and promoting affordable access to quality services when issuing licences and setting tariffs. In order to achieve the NDP goals by 2030, 19 enabling milestones were identified. Even though NERSA contributes indirectly to most of the enabling milestones, NERSA contributes specifically to 4 pertinent enabling milestones. Table 1 below summarises NERSA's contribution to the relevant enabling milestones

Table 1: NERSA's contribution to the NDP

Relevant enabling milestones	NERSA's contribution
1: Increase employment from 13 million in 2010 to 24 million in 2030	<ul style="list-style-type: none"> • Implementation of the Youth Employment Accord; • Implementation of a Learnership Programme as well as an Internship Programme; • Training and development of staff and stakeholders; • Techno Girls programme where ten girls from grade 9 to grade 12 are exposed to NERSA's activities through visits to the organisation during school holidays.

Relevant enabling milestones	NERSA's contribution
4: Establish a competitive base of infrastructure, human resources and regulatory frameworks	<ul style="list-style-type: none"> • Publication of rules, codes and guides for the regulation of the electricity, piped-gas and petroleum pipelines industries; • Setting rules and frameworks that facilitate the building of new infrastructure; • Setting and/or approving cost reflective tariffs and market related prices that encourage investment; • Facilitating and enforcing third-party access to facilities through licence conditions; • Monitoring compliance through undertaking technical audits leading to regular maintenance and refurbishment of infrastructure and thus contributing to an increase in quality of supply
5: Ensure that skilled, technical, professional and managerial posts better reflect the country's racial, gender and disability makeup	<ul style="list-style-type: none"> • NERSA ensures continued compliance with the Skills Development Act. No 97 of 1998; • Implementation of an Employment Equity Plan; • When recruiting new staff members, NERSA ensures as far as possible that the representation within the relevant department and division reflects the country's racial, gender and disability makeup.
6: Broaden ownership of assets to historically disadvantaged groups	<ul style="list-style-type: none"> • Licensing and the setting and/or approving of tariffs and prices, as in this manner NERSA creates pre-conditions towards the achievement of this milestone; • Issuing licences to eligible applicants to facilitate the meeting of stated socio-economic development targets; • Facilitating and enforcing third-party access to facilities; • Promoting companies that are owned and controlled by Historically Disadvantaged Individuals (HDIs) to become competitive; and • Regulatory advocacy for strengthening the powers of the Regulator.
10: Produce sufficient energy to support industry at competitive prices, ensuring access for poor households, while reducing carbon emissions per unit of power by about one-third	<ul style="list-style-type: none"> • Regulating in a manner that facilitates security of supply; • Taking affordability into consideration when setting and/or approving tariffs and prices; • Determining inclining block tariffs and free basic electricity tariffs to protect the low income electricity consumers; • Facilitating the conclusion of Power Purchase Agreements between the buyer and the renewable energy Independent Power Producers; • Facilitation of the implementation of the Integrated Resource Plan (IRP) through considering concurring with determinations made by the Minister in line with section 34 of the Electricity Regulation Act, 2006 (Act No. 4 of 2006); • Development and implementation of the Grid Code for renewable energy to facilitate the introduction of renewable energy power producers; • Registration of gas importation and production facilities;



Relevant enabling milestones	NERSA's contribution
	<ul style="list-style-type: none"> • Monitor the implementation of the Gas Utilisation Master Plan (once promulgated).Facilitating access to electricity in setting aside some funds for the Electrification Cross-subsidy as part of determining electricity prices; • Incorporating compliance with the National Environmental Management Act, 1998 (Act No. 107 of 1998) into licence conditions; • Promoting energy efficiency in general in South Africa and in particular in the NERSA building; • Facilitating the transition to a low carbon economy; and • Regulatory advocacy with regard to cleaner fuels policy.

3.3.2. NERSA'S CONTRIBUTION TO THE NATIONAL INFRASTRUCTURE PLAN

The South African Government adopted a National Infrastructure Plan (NIP) in 2012 that intends to strengthen the delivery of basic services and transform South Africa's economic landscape, while simultaneously creating significant numbers of new jobs. The plan also supports the integration of African economies. The New Growth Path sets a goal of five million new jobs by 2020, identifies structural problems in the economy to be overcome and points to opportunities in specific sectors and markets or 'jobs drivers'.

In order to address these challenges and goals, a total of 18 strategic integrated projects (SIPs) have been developed. The following three SIPs were identified for energy:

1. SIP 8: Green energy in support of the South African economy
 - Support sustainable green energy initiatives on a national scale through a diverse range of clean energy options as envisaged in the Integrated Resource Plan (IRP2010).

- Support bio-fuel production facilities.

2. SIP 9: Electricity generation to support socio-economic development
 - Accelerate the construction of new electricity generation capacity in accordance with the IRP2010 to meet the needs of the economy and address historical imbalances.
 - Monitor implementation of major projects such as new power stations: Medupi, Kusile and Ingula.
3. SIP 10: Electricity transmission and distribution for all
 - Expand the transmission and distribution network to address historical imbalances, provide access to electricity for all and support economic development.
 - Align the 10-year transmission plan, the services backlog, the national broadband roll-out and the freight rail line development to leverage off regulatory approvals, supply chain and project development capacity.

Table 2: NERSA's contribution to the NIP

Relevant SIPs	NERSA's contribution
8: Green energy in support of the South African economy	<ul style="list-style-type: none"> • Facilitating the conclusion of Power Purchase Agreements between the buyer and the renewable energy Independent Power Producers; • Incorporating compliance with the National Environmental Management Act, 1998 (Act No. 107 of 1998) into licence conditions; • Facilitation of the implementation of the Integrated Resource Plan (IRP) through considering concurring with determinations made by the Minister in line with section 34 of the Electricity Regulation Act, 2006 (Act No. 4 of 2006); • Facilitating the transition to a low carbon economy; and • Regulatory advocacy with regard to cleaner fuels policy.
9: Electricity generation to support socio-economic development	<ul style="list-style-type: none"> • Regulating in a manner which facilitates security of supply and investment; • Facilitating the conclusion of Power Purchase Agreements between the buyer and the renewable energy Independent Power Producers; • Setting rules and frameworks that facilitate the building of new infrastructure; • Setting and/or approving cost reflective tariffs and prices that encourage investment; • Monitoring compliance through undertaking technical audits leading to regular maintenance and refurbishment of infrastructure and thus contributing to an improvement in quality of supply.
10: Electricity transmission and distribution for all	<ul style="list-style-type: none"> • Facilitating access to electricity in setting aside some funds for the Electrification Cross-subsidy as part of determining electricity prices; • Taking affordability into consideration when setting and/or approving tariffs and prices, while allowing a provision for expansion of current operations; • Determining inclining block tariffs and free basic electricity tariffs to protect the low income electricity consumers; • Facilitating reliability of supply; • Determining benchmarks and monitoring maintenance of infrastructure; • Auditing of the implementation of the Transmission Development Plan; • Monitoring compliance with licence conditions; and • Dispute resolution, including mediation, arbitration and handling of complaints.



3.3.3. NERSA'S CONTRIBUTION TO GOVERNMENT'S PRIORITIES

In the State of the Nation Address on 20 June 2019, President Cyril Ramaphosa announced the following priorities for government to realise the vision of the National Development Plan (NDP):

- Priority 1: Economic Transformation and Job Creation;
- Priority 2: Education, Skills and Health;
- Priority 3: Consolidating the Social Wage through Reliable and Quality Basic Services;

- Priority 4: Spatial Integration, Human Settlements and Local Government;
- Priority 5: Social Cohesion and Safe Communities;
- Priority 6: A Capable, Ethical and Developmental State; and
- Priority 7: A better Africa and World

NERSA identified Priority 1: Economic Transformation and Job Creation as the key priority to which it can contribute – as part of implementing its mandate. NERSA will also contribute towards Priority 6: A Capable, Ethical and Developmental State. Table 3 below summarises NERSA's contribution to these two priorities.

Table 3: NERSA's contribution to the government's priorities

Relevant enabling milestones	NERSA's contribution
1: Economic Transformation and Job Creation	<p>By facilitating investment in the energy industry and thereby contributing to economic growth, leading to job creation, NERSA contributes through:</p> <ul style="list-style-type: none"> • licensing and the setting and/or approving of tariffs and prices, as in this manner NERSA creates pre-conditions towards the achievement of this outcome; • approving renewable energy licensees to ensure that the socio-economic development commitments specified in the DoE bidding process are met; • promoting companies that are owned and controlled by Historically Disadvantaged Individuals (HDIs) to become competitive; and • regulating in a manner that facilitates security of supply. <p>Contributing to a competitive and responsive economic infrastructure network through:</p> <ul style="list-style-type: none"> • Setting rules and frameworks that facilitate the building of new infrastructure • Setting and/or approving cost reflective tariffs and prices that encourage efficient investment • Facilitating and enforcing third-party access to facilities • Monitoring compliance and undertaking technical audits leading to regular maintenance and refurbishment of the infrastructure and therefor to the improvement in quality of supply • Promoting competition and competitiveness in the energy industry

Relevant enabling milestones	NERSA's contribution
6: A Capable, Ethical and Developmental State	<ul style="list-style-type: none"> • Transparent regulatory processes; • All decisions and reasons thereof are made public through being published on the website; • The public is invited to make comments prior to decisions being made (written or in public hearing); • Customer education programmes and awareness campaigns; • Training and development of staff and stakeholders, including training to electricity distributors on the completion of the forms requesting information from them; • Techno Girls programme - where ten girls from grade 9 to grade 12 are exposed to NERSA's activities through visits to the organisation during school holidays.

4. RELEVANT COURT RULINGS

The ruling by the courts in the following two cases have a significant impact on the operations or service delivery obligations:

4.1. Interruption of supply of electricity to Emfuleni, which includes supply to Cape Gate Pty (Ltd).

4.1.1. Applicant: Cape Gate Pty (Ltd) and Others

4.1.2. Defendant / Respondent: Eskom, Emfuleni, NERSA and other

4.1.3. Synopsis: The Applicant sought an -

- interdict against Eskom to prevent it from implementing its power supply interruption decision;
- order that the decision to implement interruptions in the electricity supply be reviewed and set aside; and
- order that Eskom supply electricity on an uninterrupted basis to the Municipality on the basis that direct payment will be made to Eskom.

4.1.4. Court ruling: The following orders were issued:

- The dispute regarding non-payment by Emfuleni to Eskom was referred to the respondents for resolution in terms of section 41(3) of the Constitution.
- Eskom was interdicted from interrupting electricity supply to Emfuleni, pending resolution of the dispute within six months of this order or pending the outcome of the final determination of Part B of the application, whichever is earlier.
- The applicants were authorized, subject to appropriate oversight by NERSA, performing its statutory functions, to discharge their debt to Emfuleni by –
 - Making payment directly to Eskom for electricity they consume at the rate of Eskom, and submitting proof thereof to Emfuleni.
 - Continuing to pay the difference between the municipal tariff and Eskom tariff (the municipal portion) to Emfuleni.

- The respondents, including NERSA, were directed to do all things necessary to give effect to the temporary order.
- Emfuleni's obligations and duties to the Applicants will not be affected by this order.

4.1.5. Ongoing impact on operations or service delivery obligations:

- The order authorising end users to make direct payments to Eskom for electricity they consume is not in line with the current legal framework. It was made as a just and equitable relief.
- It has serious implications for municipalities and the work that NERSA does.

4.2. Issues related to the approved maximum prices of gas and approved transmission tariffs for Sasol Gas

4.2.1. Applicant: NERSA and Sasol Gas

4.2.2. Defendant / Respondent: PG Group and Others

4.2.3. Synopsis:

- PG Group & Others, together called the Gas Users Group (GUG), were unhappy about the maximum prices of gas and transmission tariffs approved for Sasol Gas by NERSA, which came into operation on 26 March 2014. GUG submitted that the prices are excessive and therefore sought an order to -
 - review and set aside the abovementioned approvals by NERSA; and
 - review and set aside the methodology used by NERSA to consider the abovementioned maximum price application, or declaring such methodology to be invalid for purposes of such consideration. NERSA contests the action by the applicants.
- After the Court granted judgement in favour of NERSA and SASOL, the GUG appealed.

4.2.4. Court ruling:

- Both the Supreme Court of Appeal and the Constitutional Court granted a judgement against NERSA and Sasol. The Constitutional Court effectively criticised the price indicator method used to determine maximum prices.

4.2.5. Ongoing impact on operations or service delivery obligations:

- Following the ruling of the Constitutional Court, the Energy Regulator has been unable to process any maximum price applications using the price indicator approach. Work is in progress to develop an interim mechanism, while attending to the review of the Maximum Price Methodology, in line with the Constitutional Court ruling.



PART B: OUR STRATEGIC FOCUS

1. VISION

NERSA strives to regulate the South African electricity, piped-gas and petroleum pipelines industries by ensuring that the most efficient and effective industries are in place to exceed the requirements of existing and future energy customers. This is encapsulated in our vision statement, which is:

‘To be a recognised world-class leader in energy regulation’

In this context, being ‘world-class’ means that NERSA:

- Is recognised as a leader within the league of Regulators.
- Regulates the energy industry within its mandate without losing sight of its shared vision and values.
- Creates an environment that has low regulatory risk as viewed by all stakeholders.
- Promotes competition and competitiveness and continues to provide sound, objective and professional regulation of monopolies given the existing socio-economic conditions.
- Subscribes to the best regulatory practices and standards, including corporate governance principles.
- Continually evaluates its performance and benchmark itself against the “best-in-class energy regulators in the world”.
- Is passionate and sensitive to the needs of its stakeholders, especially employees, consumers, energy suppliers and government, to ensure equity.
- Is considered as an efficient and effective regulator.
- Encourages new ideas, innovation, processes and systems that engender economic efficiency, effectiveness and continuous improvement to meet its aim to be a learning organisation.
- Maintains synergy between input, work processes and results through its capable, diverse, highly motivated and dedicated teams.

2. MISSION

By regulating the energy industry in accordance with government laws and policies, NERSA makes a valuable contribution to the socio-economic development and prosperity of the people of South Africa. Our **mission statement**, commits NERSA:

‘To regulate the energy industry in accordance with government laws and policies, standards and international best practices in support of sustainable and orderly development’

3. VALUES

Values are the expression of what we stand for and how we will conduct ourselves. In this context and in addition to our commitment to comply with the requirements of section 9 (11) of the National Energy Regulator Act, 2004 (Act No. 40 of 2004) and its Code of Conduct, we have adopted the following values:

Passion

We conduct our business with a sense of urgency and commitment and are proud to be part of NERSA.

Spirit of Partnership

In working with all our stakeholders, we deliver on our promises for the purpose of sustainable development.

Excellence

In striving for the best results, we promote growth/development of our staff, and benchmark ourselves against the ‘best-in-class’ energy regulators across the globe.

Innovation

As a learning organisation, we strive to set trends and promote creativity by challenging the norm in order to continuously improve.

Integrity

Being honest, fair and sincere with all stakeholders and among ourselves.

Responsibility We practice responsibility and take ownership of our actions and decisions.

Professionalism We encourage maintenance of high standards of professional competence, and interdependence between our teams by means of effective communication channels to treat everybody as stakeholders.

Pride We take pride in what we do

4. REGULATORY PRINCIPLES

In regulating the three industries, NERSA must adhere to sound principles and approaches to be able to deliver on its mandate and achieve its objectives. NERSA has given consideration both to international best practice and the key principles stated in the African Forum for Utility Regulators (AFUR) Framework for Utility Regulation in Africa¹. Following the completion of the Benchmarking the National Energy Regulator of South Africa against international good practice, NERSA reviewed the literature on good regulatory principles and identified those principles that emerge strongly and consistently as international good practice. Supported by its legal mandate, NERSA adopted the following internationally accepted regulatory principles to underpin its regulatory approach:

Transparency The Energy Regulator is required to explain its decisions and processes to regulated entities and other interested parties, which implies that the data or information on which the decision is based is readily available and the reasoning behind it is readily explained. This covers public consultation and accessibility.

Neutrality The Energy Regulator should be neutral to all market players without favouring any one group (non-discriminatory).

Consistency and Predictability Decisions must be consistent and should have a reasonable degree of predictability based on previous rulings in similar cases.

Independence The independence of the Energy Regulator from the regulated companies is a prerequisite for any sound regulatory system. Independence from political influence is also desirable to ensure the long-term stability of regulatory practices. Avoidance of regulatory capture by some customer groups is also necessary for successful regulation.

Accountability The Energy Regulator should be accountable for its actions and decisions. Independence must not be confused with the lack of accountability.

Integrity The Energy Regulator should exercise professionalism, honesty and objectivity in the management of the Energy Regulator's affairs and in all its dealings with stakeholders.

¹ This Framework was adopted by AFUR in November 2003.



5. SITUATIONAL ANALYSIS

5.1. EXTERNAL ENVIRONMENT ANALYSIS

The performance environment of NERSA is impacted upon by energy demand and supply trends and developments in the global, continental, regional and national environments.

5.1.1. Global Trends

According to the World Economic Forum insight report², the following key issues of the energy system and energy transition are worth noting, as summarised below:

- a) Energy is a key element of the modern economy. The availability of secure and reliable energy supply is essential for industrial processes and the provision of public services such as lighting, heating, cooking, information and communication technology, and mobility.
- b) The energy system is undergoing unprecedented change, driven by forces such as technological innovation, changes in consumption patterns, supply dynamics and policy shifts. These forces offer opportunities to resolve the challenges that the global energy system faces today, namely:
 - providing energy access to the more than one billion people who lack it;
 - meeting demand for an additional two billion people by 2050 while delivering that energy at an affordable cost; and
 - ensuring that the carbon and emissions footprint decline.
- c) The geopolitical landscape of energy is quickly shifting and environmental concerns have shaken the system's foundations. At the same time, the economics of competing energy sources have changed, and the advent of Fourth Industrial Revolution technologies have enabled new business models,

while making others obsolete. The latter has created significant uncertainty about the pace and destination of the transformation, making a strong case for a systemic, multi-stakeholder approach that increases the transparency of the enablers and reforms needed for countries to achieve an effective energy transition.

- d) Energy systems are complex and are at the heart of every country's economy. These systems aim to support society in the three dimensions of the energy triangle, namely:
 - inclusive economic development;
 - environmental sustainability; and
 - secure and reliable access to energy.
- e) The boundaries of energy systems have recently started shifting. The stakeholders are diverse, including:
 - end users and industrial consumers;
 - energy companies;
 - financial sector entities;
 - policy-makers;
 - cities;
 - international energy organizations; and
 - civil society.
- f) In the last decade the following trends have emerged:
 - Technological progress has allowed new forms of producing, storing, transforming and consuming energy, altering the nature of the energy system.
 - Energy consumption patterns have fundamentally shifted, resulting in new demand dynamics.
 - Policy-makers have started to adapt energy policies, and new coalitions have been formed to address challenges and harness opportunities associated with these developments.

² World Energy Forum report (2018) on *Fostering Effective Energy Transition: A Fact-Based Framework to Support Decision-Making*

- g) Countries can use these game-changing trends to enhance their energy systems and improve the wellbeing of their populations.

5.1.2. Global Energy Consumption and Demand Trends

- a) The global energy sector has changed dramatically over the last 25 years, with larger changes possible over the next 25. The magnitude and direction of these changes, however, is highly uncertain. According to the Global Energy Outlook (2019), global primary energy consumption has grown rapidly over the past 25 years, reaching 546 quadrillion Btu (qBtu) in 2015, more than 190 qBtu higher than 1990 levels. Over the next 25 years, growth is projected to slow down, increasing by roughly 110 to 160 qBtu in Evolving Policies scenarios, and declining by as much as 4 qBtu under Ambitious Climate scenarios (see Figure 1 below).
- b) The International Energy Outlook current policies scenario (IEA CPS) shows the highest consumption in 2040 at 767 qBtu, an increase of 41% over 2015. OPEC and the Institute of Energy Economics Japan (IEEJ) project consumption of roughly 720 qBtu in 2040, similar to the absolute levels of growth from the previous 25 years. Evolving Policies scenarios project moderately slower growth, led by the IEA new policy scenario (NPS) (703 qBtu), ExxonMobil (681 qBtu), and Equinor's Reform Scenario (659 qBtu). Under two of three Ambitious Climate scenarios (IEA sustainable development scenario (SDS) and Shell Sky), global energy consumption is roughly flat to 2040. In the IEA SDS, demand is 544 qBtu in 2040, while Equinor Renewal projects consumption falling to 534 qBtu in 2040. On the other hand, under Shell's Sky, demand grows to 711 qBtu by 2040, higher than any Evolving Policies scenarios.
- c) With regard to the shares of global primary energy consumption by fuel projections, the Global Energy Outlook (2019) report states that fossil fuels, which made up 82% of global primary energy in 2015, dominate across Reference and Evolving Policies scenarios, ranging from 74% to 79% in 2040 (see Figure 2 below). Under Ambitious Climate scenarios, fossil fuels decline from 60% to 62%.

Figure 1: Global primary energy consumption³

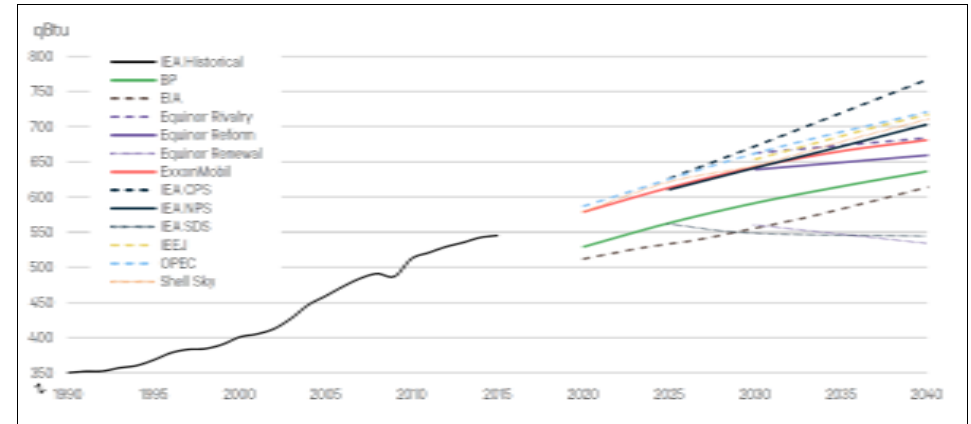
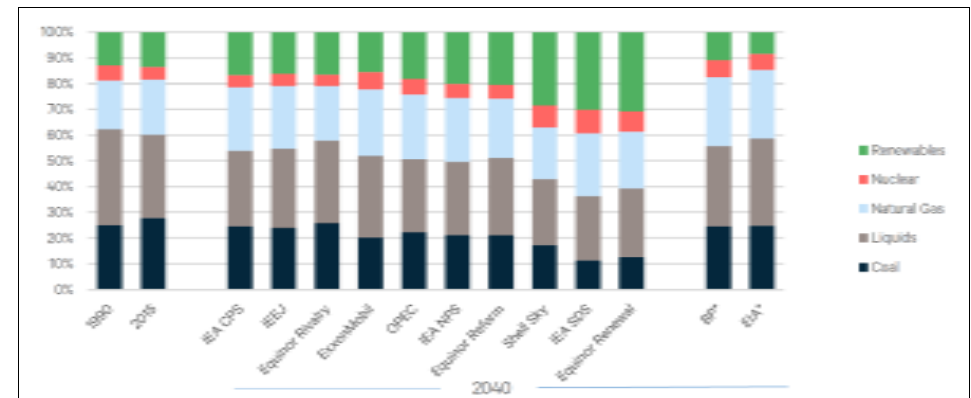


Figure 2: Shares of global primary energy consumption by fuel⁴



- d) Liquid fuels (primary oil) will continue to be the single largest fuel source in the energy mix across most outlooks, though its share shifts from 32% in 2015 to between 28% and 32% in the Evolving Policies scenarios. Under ambitious climate policies, liquids still account for 26% to 27% by 2040, but of a smaller aggregate energy base in the case of IEA SDS and Equinor Renewal.
- e) On the other hand, natural gas becomes the second largest source in most outlooks, rising from 21% in 2015 to between 21% and 27% by 2040.
- f) According to forecasts, coal loses market share across all projections. Under Ambitious Climate scenarios, coal declines from 28% of the mix in 2015 to between 12% and 17% by 2040. Under Evolving Policies, it falls to 20% to 22%.
- g) Renewables, led by wind and solar, will grow under all projections, though the rate of growth varies widely. Under Reference scenarios, renewables increase from 14% of the mix in 2015 to between 16% and 17%. Under Ambitious Climate scenarios, they become the largest source of global primary energy, overtaking petroleum to reach as high as 31% in 2040.
- h) Projections for nuclear's share of the mix also vary substantially, and is highest under Ambitious Climate scenarios, where it provides 8% to 9% of global primary energy, up from 5% in 2015. For other scenarios, nuclear accounts for 4% to 7% of the mix.
- i) According to the BP Report (2019)⁵, world energy demand is projected to grow by 1.3% per annum from 2016 to 2040 with all the growth coming from emerging economies. China and India will account for over a quarter of this increase. Global energy intensity [the ratio of energy demand to Gross Domestic Product (GDP)] is projected to decline by 1.9% per annum over this

period. Renewables are the fastest growing fuel source, however oil and gas are still expected to account for more than half of global energy in 2040. Coal demand peaks, with its share of primary energy expected to fall to 21% by 2040. Natural gas is expected to replace coal as the second largest source of energy, after oil.

- j) The World Energy Outlook (2018) report notes that as economies continue to grow, energy demand grows as well. Average GDP in the non-Organisation for Economic Co-operation and Development (OECD). Over the past 25 years, world economic growth has been led by the non-OECD countries, accompanied by strong growth in energy demand in those countries. From 1990 to 2015, real GDP grew by 4.9% per year in the non-OECD, compared with 2.1% per year in the OECD. In the future, the difference in economic growth rates between OECD and non-OECD countries is expected to narrow somewhat, as economic growth in non-OECD countries moderates, and as their industrial sectors move from reliance mainly on production in energy-intensive industries to more service-oriented industries.
- k) The emerging trends are as follows⁶:
- Renewables are the world's fastest-growing energy source over the projection period. Renewable energy consumption is expected to increase by an average of 2.6% per year between 2012 and 2040.
 - Nuclear power is the world's second fastest growing energy source, with consumption increasing by 2.3% per year over that period.
 - Even though the consumption of non-fossil fuels is expected to grow faster than the consumption of fossil fuels, it is projected that fossil fuels will still account for 78% of energy use in 2040.
 - Natural gas is expected to grow faster than other fossil fuels in the next two decades. Abundant natural gas resources and robust production, including rising supplies of tight gas, shale gas, and coalbed methane, will contribute to the strong competitive position of natural gas. Shell has warned in its annual report released in March 2018 that there could be a shortage in the Liquefied Natural Gas (LNG) market in the next decade unless new investment is

³ Global Energy Outlook (2019)

⁴ Source: Global Energy Outlook (2019)

⁵ BP Statistical Review of World Energy, 2019

⁶ World Energy Outlook (2018) report: The gold standard of energy analysis

undertaken soon. Investment decisions on new LNG supply have come to a near standstill over the last two years. In 2017, only one large-scale LNG project reached Final Investment Decision, namely the 3.4 MTPA Coral South FLNG in Mozambique, marking the lowest volume of sanctioned LNG in nearly twenty years (IGU, 2018)⁷. According to the IGU (2018), the total volume and number of LNG contracts signed has declined consistently over the past three years.

- Although liquid fuels (mostly petroleum based) will remain the largest source of world energy consumption, the liquids share of world market energy consumption falls from 33% in 2012 to 30% in 2040. Contributing to the decline are rising oil prices in the long term, which lead many energy users to adopt more energy efficient technologies and to switch away from liquid fuels.
- Coal, the world's slowest growing energy source, will rise by 0.6% per annum and will be surpassed by natural gas by 2030.

Liquid fuels

- l) World consumption of liquid fuels rises from 95 million barrels per day (b/d) in 2015 to 113 million b/d in 2040 (International Energy Organisation, 2017). Most of this growth is seen in the transportation and industrial sectors with an average increase of 0.7% per year from 2015 to 2040. Non-OECD nations account for most of the increase, with demand rising by 1.3% per year compared with a slight decrease in the OECD. Most of the growth (80% of the total increase) in world liquid fuels consumption from 2015 to 2040 comes from non-OECD countries, where strong economic and population growth increase the demand for liquid fuels by 39%.
- m) The use of petroleum and other liquids in the industrial sector to power equipment and serve as chemical feedstocks will increase slowly between 2015 and 2040. Furthermore, the use of petroleum and other liquids to generate electricity declines over the projection period as a result of increasing oil prices and relatively less costly natural gas, encouraging producers to switch to alternative energy sources.

Natural gas

- n) Global natural gas consumption is expected to grow in both the OECD and non-OECD countries from 2015 to 2040. However, the growth is higher with an expected average of 1.9% per year in non-OECD countries that have expanding industrial sectors and electricity demand, in contrast to 0.9% per year in OECD countries. The share of world natural gas consumption in non-OECD countries increases from 53% in 2015 to 59% in 2040. Natural gas continues to be an attractive fuel for the electric power and industrial sectors in many countries, accounting for nearly 75% of the projected increase in total consumption between 2015 and 2040. Natural gas-fired generation is attractive for new power plants because of low capital costs, favourable heat rates, and relatively low fuel cost. Natural gas-intensive industries, such as chemicals, refining, and primary metals, are expected to expand over the period of 2015 to 2040 – particularly in non-OECD countries – driving industrial demand higher. The largest increases in natural gas production from 2015 to 2040 occur in the Middle East (11.8 Tcf), China (9.5 Tcf), the United States (10.7 Tcf), and Russia (4.8 Tcf).
- o) Demand for natural gas is expected to grow by more than half, the fastest rate among the fossil fuels, and increasingly flexible global trade in LNG offers some protection against the risk of supply disruptions. The growth in LNG increased by 29 million tonnes to 293 million tonnes in 2017. The main regions that push global gas demand higher are China and the Middle East, but gas is also expected to become the leading fuel in the OECD energy mix by around 2030. China has overtaken South Korea to become the second-largest importer of LNG as a result of switching its policies from coal to gas to reduce air pollution⁸. Japan is still the largest LNG importer, but according to Capital Markets Outlook 2018, a structural change in its energy policy could see it lose the top slot by as early as 2020. The key uncertainty is whether gas can be made available at prices that are attractive to consumers while still offering incentives for the necessary large capital-intensive investments in gas supply.

⁷ International Gas Union (IGU) World Gas LNG Report – 2018 Edition, 27th World Gas Conference Edition



p) The global interest in LNG power generation is increasing. There is also a growing demand for LNG as a bunkering fuel worldwide, albeit slowly. From 2018, ships operating in European waters will be required to report their annual greenhouse gas emissions. At the moment, ships operating in Europe must comply with a 0.5% sulphur limit, but there are options aside from using LNG as a fuel, such as installing scrubbers. The 0.5% limit will apply globally from 2020, down from the current 3.5%⁸. LNG exports from the Americas are set to rise from 2018 as supplies ratchet up from the United States, Trinidad and Tobago and Peru. The three countries exported a combined 19.74 mt of LNG during the first nine months of 2017, a year-on-year increase of 51.5%. The LNG market is expected to grow going forward (2017 – 2021)¹⁰. The contributing factors for this rapid increase is the start-up of several new projects in Australia and Indonesia, rapid economic growth especially of emerging economies, and rising demand for environmentally cleaner fuels. Global Gas Analytics (GGA) forecasts that LNG exports from the Americas to increase by 10% year-on-year in 2018, to 28.4 mt.

Coal

q) According to the Coal transitions in South Africa Report, 2018), South Africa's Nationally Determined Contribution (NDC) is based on the long-term benchmark emissions trajectory range, which is contained in the National Climate Change Response Strategy White Paper (DEA, 2011). The NDC commits to limiting emissions to a range between 398 and 614 Mt CO₂-eq, between 2025 and 2030. Known as the Peak, Plateau, and Decline trajectory (PPD), the goal is to peak emissions between 2020 and 2025, plateau for approximately a decade and decline in absolute terms thereafter (RSA, 2016). The National Climate Change Policy Framework thus extends the NDC commitment to 2050, with a goal to reduce emissions to between 212 and 428 Mt CO₂-eq in 2050 (DEA, 2011). The key finding of the NDC scenario is that South Africa can meet its NDC

⁸ 4th Quarter report on the development of new gas sources in South Africa and neighbouring countries

⁹ 4th Quarter report on the development of new gas sources in South Africa and neighbouring countries

¹⁰ http://www.researchandmarkets.com/research/s9wds5/global_liquefied

¹¹ Coal transitions in South Africa Report ,2018

and mid-PPD primarily through decarbonising the electricity sector. The scenario results in 71% of electricity generated from wind and solar photovoltaic (PV) by 2050. There is substantial investment in gas capacity because of a conservative assumption that renewable energy cannot be considered firm capacity during the peak, though the gas plants contribute relatively less to electricity generated (14%).

r) Considering the role of coal in South Africa's economy, it should be noted that coal is an important foreign exchange earner. It accounts for approximately 12% of the total merchandise exports from South Africa over the period 1993 to 2015 (CoM, 2016). The State benefits via taxes and royalties associated with coal mining. Coal royalties are approximately 18% of total mining royalties. The coal-mining sector employed around 77,000 workers in 2015. In comparison, the entire mining sector employed approximately 457,000 workers in 2016 (Chamber of Mines, 2016), out of a total employed workforce of 15.8 million people (StatsSA, 2017). Coal jobs therefore account for nearly 0.5% of the national workforce¹¹.

s) According to the International Energy Outlook, forecast worldwide coal consumption remains roughly the same between 2015 and 2040 (about 160 quadrillion Btu), with decreasing consumption in China and the United States offsetting growth in India. China remains the largest single consumer of coal in 2040 (about 73 quadrillion Btu), despite a steady decline in the country's consumption over time. A slowing economy and plans to implement policies to address air pollution and climate change emphasises the decline over the projection period. India's coal consumption continues to grow by an average of 2.6% per year from 2015 to 2040, with the country surpassing the United States as the second-largest coal consumer before 2020.

t) In OECD countries, coal consumption declines by an average 0.6% per year over the period of 2015 to 2040 because of increasing competition from natural gas and renewables and only moderate increases in electricity demand. Africa, the Middle East and other non-OECD countries, are

projected to gradually expand coal capacity and generation through 2040, but their use of this resource starts from a low base. Despite significant increases in coal consumption, coal's share in overall energy consumption in India is projected to decrease from 49% in 2015 to 43% by 2040, due in part to policies promoting renewable and nuclear-based generation.

Electricity

- u) According to the World Energy Outlook (2018) report, electricity is the fastest-growing source of final energy demand, and over the next 25 years, it continues to outpace energy consumption as a whole. The power sector now attracts more investment than oil and gas combined – necessary investments as the generation mix changes and ageing infrastructure is upgraded
- v) According to forecasts, net electricity generation in OECD Europe is expected to increase slowly, by an average of 1.1% per year from 2015 to 2040, compared to the world average increase of 1.5% per year (International Energy Outlook, 2018). India's net electricity generation increases by an average of 3.2% per year over the same period, driven by strong industrial growth and policies to increase the availability of electricity in rural areas.
- w) The generation mix in OECD Europe changes considerably by 2040, with renewables and natural gas growing, coal remaining flat, and nuclear power and liquid fuels declining. Nuclear generation's share is expected to decline from around 25% in 2015 to less than 15% by 2040. This is a result of stated policies to either cap or phase out nuclear power, including those adopted in France, Germany, and Sweden. The use of natural gas electricity generation in OECD Europe does not expand until 2030, mostly because of the large increases in projected renewables generation. In OECD Europe, when natural gas begins to gain market share in 2030, it displaces nuclear power, coal, and renewable generation.
- x) The number of people without access to electricity declined from 1.7 billion in 2000 to 1.1 billion in 2016 and is forecast at 650 million by 2030 (World

Energy Outlook, 2018). The remaining population without access becomes increasingly concentrated in sub-Saharan Africa as developing countries in Asia reach a 99% electrification rate, with universal access achieved by the mid-2020s in India and Indonesia (see Figure 3 below).

- y) The number of people without access to clean cooking falls, but only to 2.2 billion by 2030. According to the World Energy Outlook (2018) report, the greatest challenge in achieving universal access to electricity is providing access to people living in the most remote areas in sub-Saharan Africa. Although most of the access is done through generation from renewables, the grid expansion also has an important part to play.
- z) Universal access strategies should be diverse. Local conditions and practices need to be underpinned by firm political commitments with supportive and enabling regulatory frameworks; engagement with the private sector; appropriate financing options and investment; capacity building and close consultation from the outset with local communities, especially women (World Energy Outlook, 2017).
- aa) Globally the dependence on electricity is growing and society is becoming more and dependent on the use of electricity for the sustainability of life as they know it. Cities would not survive without electricity. Yet as this is taking place, there are growing concerns about the security of supply. Apart from all the normal reasons for this, there is a new threat that is attracting attention globally – cybersecurity and the vulnerability of the power system to cyber-attacks. This is a global problem and South Africa is not excluded. However, this is an area of regulation that has not yet been addressed.
- bb) Globally, the trend in renewable energy that is receiving the most attention from regulators is the installation of rooftop solar PV from a domestic customer point of view. This is putting a big dent in utility revenues and there are implications for regulators as well, among others:
 - the sustainability of licensees;
 - restructuring of tariffs by licensees in response to Small-Scale Energy Generation;



- tariff structures for feeding power onto the grid;
- the network impact of these installations; and
- control of quality of supply for other customers.

The most difficult implication to deal with is the sustainability of the licensees. NERSA has addressed these issues in varying degrees, but it requires ongoing attention.

5.1.3. Continental Developments

- a) Sub-Saharan Africa accounts for almost 14% of the world's population, but only 4.5% of global primary energy demand [619 million tonnes of oil equivalent (Mtoe)]. According to latest statistics from the World Energy Outlook (2017) report, the number of people without access to electricity in sub-Saharan Africa continues to decline, albeit slowly. Over 200 million people have gained access since 2000, less than the overall population increase. As a result, there remain more than 600 million people without access, despite an increase in the access rate of 20 percentage points to 43%.
- b) Furthermore, recent efforts have been uneven, with around 60% of the progress seen since 2011 concentrated in just four countries (Kenya, Ethiopia, Tanzania and Nigeria), which together account for only 31% of the population without electricity access in sub-Saharan Africa. In Kenya, the access rate has increased by over 65 percentage points in 2000, to 73% today, and the Last Mile Connectivity Project aims to deliver universal access by 2022. In Ethiopia, electricity now reaches 45% of the population compared with 5% in 2000. The National Electrification Programme, launched in 2017, outlines a plan to reach universal access by 2025, aiming to reach 35% of the population with off-grid solutions.

- c) In South Africa, while the current electrification rate is relatively high (84%) it has been declining since 2014, in large part because electrification in urban areas has not kept pace with migration from rural areas.
- d) Energy demand in sub-Saharan Africa is very low. However, there are several factors pointing towards potentially rapid and prolonged growth in demand: strong economic expansion; increasing urbanisation; industrialisation and modernisation; a burgeoning middle class in many countries; as well as a legacy of unmet energy demand. The sub-Saharan Africa energy system is expected to expand rapidly by 2040 and so do the demands placed upon it. According to the World Energy Outlook Report (2018), the sub-Saharan Africa economy will quadruple in size, the population will nearly double (to 1.75 billion) and energy demand grows by around 80% by 2040. The capacity and efficiency of the system improve, and access to modern energy services grows, but many of the existing energy challenges are only partly overcome.
- e) Bioenergy demand will increase by 40% in absolute terms by 2040, exacerbating stress on the forestry stock. However, the share of bioenergy in the energy mix declines from above 60% to below half and the share of modern fuels edges higher. Oil demand will more than double to 4 million barrels/day (Mb/d) in 2040 [over 0.5 Mb/d is the residential use of Liquid Petroleum Gas (LPG) and kerosene] and becomes the second-largest fuel in the mix, overtaking coal. Natural gas use grows by nearly 6% per year, to reach 135 bcm.
- f) According to BP, Africa will have the highest Compound Annual Growth Rate ('CAGR') for oil and gas consumption over the next 20 years while having the lowest existing energy consumption base¹². There is an urgency to address the current and future power supply, transmission and distribution needs. Therefore, the proven nature of Open Cycle Gas Turbines (OCGT) and Combined Cycle Gas Turbines (CCGT) technology coupled with the increased global volumes of LNG and potential for subdued future prices appear to offer an opportunity for African gas to power to grow. Africa has significant natural gas reserves, with increasing numbers of countries joining the list of

¹² PwC (2018). Staking on tomorrow: Africa oil and Gas review report

¹³ "1st phase of Zohr gas field about to be finished: Min." Egypt Today. January 2018

¹⁴ IGU World Gas LNG Report – 2018 Edition, 27th World Gas Conference Edition

countries that have discovered resources. For countries lacking domestic gas today, importing LNG for gas to power projects has become feasible due to the reason that there is an increase in countries that have discovered natural gas.

- g) The sub-Saharan Africa power system is expanding rapidly, with generation capacity quadrupling to 385 GW. The power mix becomes more diverse, with coal (mainly South Africa) and hydropower (all regions), being joined by greater use of gas (Nigeria, Mozambique, Tanzania), solar (notably in South Africa and Nigeria) and geothermal (East Africa). The share of renewables in total capacity more than doubled to 44%. The total power sector investment averages around \$46 billion per year, with just over half of it in transmission and distribution.
- h) Oil production will rise above 6 Mb/d by 2020, but will then taper off to 5.3 mb/d in 2040. Nigeria and Angola remain the dominant producers, although Uganda and Kenya are expected to ramp up oil output in the 2020s. Gas production will rise to 230 bcm in 2040, led by Nigeria, and there will be an expansion of the output from Mozambique (60 bcm in 2040), as well as Angola and Tanzania (each 20 bcm). Coal supply is expected to grow by 50% to reach 325 Mtoe, still concentrated in South Africa, but joined increasingly by Mozambique and others. Sub-Saharan energy exports are drawn increasingly towards Asian markets. Crude oil net exports will decline to just over 3.8 Mb/d by 2040, partly due to a greater share being refined and consumed domestically. Rising gas output from Mozambique and Tanzania will bring sub-Saharan LNG export towards 100 bcm by 2040 (around 17% of inter-regional LNG trade), and Mozambique joins South Africa as a key coal exporter.
- i) Furthermore, sub-Saharan Africa makes only a small contribution to the global energy-related CO₂ emissions. It is envisaged that it will account for a mere 3% of the total in 2040, but is on the front line when it comes to the potential impacts of a changing climate. In particular, hydropower prospects can be affected by changing patterns of rainfall. The fuelwood and charcoal sectors operate largely outside the formal economy, meaning that policymakers have few levers to promote more sustainable forestry.
- j) Sub-Saharan Africa is rich in energy resources, but very poor in energy supply (International Energy Agency, 2017). The political instability in Sub-Saharan Africa limits the realisation of future gas infrastructure. A clear and comprehensive plan is needed to attract Foreign Direct Investment (FDI) into a country's gas sector.
- k) Natural gas resource-holders can power domestic economic development and boost export revenues, but only if the right regulation, prices and infrastructure are in place. The incentives to use gas within sub-Saharan Africa are expected to grow as power sector reforms and gas infrastructure projects move ahead. International Energy Agency, (2017) predicts that natural gas will nearly triple its share of the energy mix in Africa to 11% by 2040.
- l) Sub-Saharan Africa has 221.6 trillion cubic feet of proved natural gas reserves. The Middle East has almost 13 times that amount and Eurasia has almost 10 times that amount. Sub-Saharan Africa produced 1.69 trillion cubic feet of natural gas in 2011, accounting for 1% of total global natural gas production. Natural gas production in Sub-Saharan Africa grew by an annual average of 10% over the past ten years. The growth was led by Nigeria, Equatorial Guinea, and Mozambique. Nigeria produces around two-thirds of the region's natural gas. The largest gas discovery was made in Egypt in the Zohr field with more than 30tcf of gas, which is located within the offshore Shorouk Block. Over the next year or two, Egypt plans to bring online all four trains of the first phase of Zohr, as well as expanding operations at the Abu Qir acreage and starting up the Atoll project and Phase 9B of the West Delta Deep Marine project¹¹.
- m) Sub-Saharan Africa exports about 1.22 tcf of natural gas and LNG via pipeline. Nigeria, Equatorial Guinea, and Mozambique are the only sizable natural gas exporters in the region. Angola joined the group in 2013 when it began exporting LNG. According to the IGU (2019) report¹⁴, several new gas projects came online in Algeria, leading to an increase of 0.8 MT to reach 12.4 MT of exports, which is the country's highest since 2014.
- n) The African Energy market has a required energy investment of US\$65 to US\$90 billion, with actual current investment at US\$23 billion. This translates to



a funding gap of between US\$40 and US\$60 billion. To address this issue, the African Development Bank (AFDB) has since established a new fund for energy that is aimed at achieving universal access to energy by 2025. It envisages 200 million connections and doubling the continent's generation capacity by 2025. The AFDB fund aims to increase new off-grid connections by 130 million, new generation capacity by 160 GW and new clean cooking solutions by a further 150 million.

5.1.4. Regional Developments

- a) Energy is vital to development in the Southern African Development Community (SADC). Beyond its use in daily life, fuel and electricity catalyse infrastructure projects that drive both regional integration and economic growth. As the SADC region industrialises on its path to improved human development, energy production and distribution will only increase in importance. Recognising the fundamental role of energy in accomplishing its goals, the SADC passed the Protocol on Energy in 1996, which provides a framework for cooperation on energy policy among SADC Member States.
- b) Since the adoption of the Protocol on Energy, the SADC has enacted several strategic plans for energy development in the region. Although implementation of these strategies has been slow, the region has made significant strides, particularly in electricity. At present, nine Member States of the SADC have merged their electricity grids into the Southern African Power Pool (SAPP), reducing costs and creating a competitive common market for electricity in the region. Similarly, the SADC has established the Regional Electricity Regulatory Association (RERA), which has helped in harmonising the region's regulatory policies on energy and its subsectors.
- c) While the SADC is enacting a number of initiatives to address these issues, it has identified two chief points of focus, as follows:
 - Electricity Generation – Southern Africa has ample resources for electricity generation, though it occasionally lacks the capacity for development.

- Hydropower and Renewable Energy – Renewable energy has grown in importance for both regional and global energy markets.

- d) In 2015, the SADC also launched the Industrialisation Strategy and Road Map for 2015–2063. Based on the Strategy and Roadmap, a SADC Industrialisation Action Plan had been drafted which covers how industrialisation should unfold; competitiveness; regional integration; crosscutting issues; institutional arrangements; and the monitoring and evaluation process. The successful implementation of this roadmap is essential for socio-economic development in the region and will have a bearing on the activities undertaken by regulators – the energy requirements for meeting the regional growth targets of 4–7% per annum as part of the industrialisation process are expected to be enormous. There has also been cooperation by SADC Member States on the establishment of the SADC Centre for Renewable Energy, Energy and Efficiency (SACREEE) in Namibia and the Southern Africa Research and Documentation Centre, which will function as platforms for capacity building, distribution of energy-related information, and energy-related projects.
- e) The region is relatively well endowed with energy resources. The SADC region has vast energy potential from solar, wind, nuclear, hydro, thermal, gas and petroleum sources in several countries. However, biomass is by far the largest source of energy in most regional countries.
- f) Electricity, as the dominant source of energy in the region, is generated mainly through thermal or hydroelectric resources. The coal industry is the backbone of power generation in the region and a significant share of the resource is allocated for export. The region has a large reserve of low-cost hydroelectricity in the north [especially Inga Reservoir in the Democratic Republic of Congo (DRC)] and Kariba Dam on the Zambia/Zimbabwe border in the middle of the regional system, as well as large reserves of cheap coal in Botswana, Mozambique, South Africa and Zimbabwe.

- g) Natural gas is becoming more significant to the region's energy sector, as Mozambique, Namibia, South Africa and Tanzania are developing the natural gas fields in their respective countries. New natural gas discoveries by international oil companies in Mozambique and Tanzania during the past decade have ignited investor interest in this previously under-explored region. The nascent petroleum and gas sub-sector is however plagued by volatile prices. Although the region is endowed with some petroleum and gas resources, these are not directly available to the region due to either foreign commitments or the lack of the necessary infrastructure to exploit, process, store and distribute throughout the region.
- h) Furthermore, the region has some of the most significant known reserves of uranium. The mineral is being mined in Namibia and South Africa for use as fuel for nuclear power plants while exploration is underway in Botswana and Zimbabwe. Nuclear technology is included in the electricity sub-sector, but it must be demonstrated that nuclear power can be a safe electricity generation option and the confidence of the population and governments must be won to endorse nuclear energy deployment in the SADC region. Only South Africa has nuclear capacity, with tentative plans for a new nuclear programme.
- i) The region has great potential for renewable energy, including hydropower, which is already being utilised on a commercial scale. However, the necessary infrastructure for grid connection is poor. The prices for most renewable energy technologies are decreasing, but more must be done in the form of innovative financing. A key factor of the SADC energy sector is the fact that the region has faced an electricity deficit since 2007 due to a combination of factors that have contributed to a diminishing generation surplus capacity against an increasing growth in demand. In recent years, the sub-region has experienced a power deficit situation due to a number of reasons, including growing demand against limited expansion in generation capacity.

Electricity

- j) Although plans have been put in place to address the supply shortage by 2020, projects intended to address the shortage lag behind the deadline due to failure to package projects for funding, below-cost tariffs, poor project preparation, issues with Power Purchase Agreements (PPAs), and the absence of regulatory frameworks, among other constraints. Massive investment in generation, transmission and distribution infrastructure will be required to sustain the projected increase in power demand in the region. Between US\$93 billion and US\$212 billion is required for short and long-term projects to boost power supply by 2027.
- k) One of the most pressing constraints is the need to improve the transmission line capacity and strengthen the regional grid. Approximately 60–70% of the matched bids in the Southern African Power Pool cannot take place due to transmission capacity constraints. Eskom, for example, would be able to sell all of its 'excess' capacity to its northern neighbours if the transmission capacity existed.
- l) More than 24,000 MW of new generation capacity was commissioned between 2014 and 2017. A number of rehabilitation and new generation projects are being undertaken to address the generation supply gap. The SAPP Plan indicates that 57,000 MW would need to be commissioned in the next 20 years. The generation mix is expected to change in the future with more emphasis on renewable energy particularly hydropower development. Currently, hydropower constitutes 21% of the generation mix, which will increase to at least 26% in the next 20 years. However, there is a need to diversify the energy source base in view of the experiences of Zambia and Zimbabwe, particularly in 2015, when hydropower generation dropped by nearly 40% due to low water levels in the Zambezi river and the Kariba Dam as a result of poor rainfall. This, therefore, calls for the prioritisation of solar and other renewable energy projects in line with the climate change efforts being pursued internationally.
- m) Nearly all the SAPP Member States have high solar penetration levels, which provide great potential and a meaningful contribution of solar energy to the current power deficit. The total renewable energy contribution is expected to rise to at least 35% of the regional energy mix by 2030.

n) Renewable energy targets in the SADC region are provided in Table 4 below:

Table 4: Renewable Energy Targets in the SADC Member States¹⁵

Country	Sector/Technology	Target
Angola	Electricity access Renewable energy (small-scale) Hydropower Biofuels	Increase in renewable energy capacity of the following amounts by 2025: <ul style="list-style-type: none"> • Small hydro: 100 MW, with 60 MW for municipalities • Solar: 100 MW, with 10 MW off-grid • Wind: 100 MW • Biomass: 500 MW
Botswana	Energy access Renewable electricity Renewable energy	<ul style="list-style-type: none"> • 82 per cent access to modern energy services by 2016; 100 per cent access by 2030 • Capacity increases expected from REFIT programme (delayed) • 15 per cent renewable share in final energy consumption by 2036, but may increase to 20 per cent in 2017 Renewable Energy Strategy once approved.
DRC	Energy access (non-renewable energy-specific)	• 60 per cent overall energy access (not renewable-specific) by 2025 (from 9 per cent currently)
Lesotho	Grid extension (non-renewable energy-specific)	• Targets pending completion of Sustainable Energy Strategy 2018
Madagascar	Renewable electricity	• 85 per cent renewable share in electricity generation by 2030
Malawi	Electricity access Electricity efficient device Renewable energy Biofuels	By 2025/2030: <ul style="list-style-type: none"> • 30 per cent access to electricity (up from 9 per cent since 2010) • 100 per cent use of efficient cook stoves in off-grid households • 6 per cent renewable share in energy mix (up from 1 per cent) • Biofuels mandate of 20 per cent ethanol and 30 per cent biodiesel
Mauritius	Renewable electricity	• 35 per cent of electricity from renewables by 2025; generation shares of 17 per cent bagasse, 8 per cent wind, 4 per cent waste, 2 per cent solar, 2 per cent geothermal by 2025 (under review)
Mozambique	Renewable electricity	400 MW increase in installed renewable energy capacity by 2024, including: <ul style="list-style-type: none"> • Wind: 150 MW • Hydro: 100 MW large-scale, 100 MW small-scale • Solar: 30 MW • Biomass: 30 MW

¹⁵ SADC Renewable Energy And Energy Efficiency Status Report, 2018

Country	Sector/Technology	Target
Namibia	Renewable electricity	<ul style="list-style-type: none"> • 70 per cent renewable share in electricity generation by 2030
Seychelles	Renewable electricity	<ul style="list-style-type: none"> • 5 per cent renewable share in electricity generation by 2020; 20 per cent by 2030
South Africa	Renewable electricity Transport	<ul style="list-style-type: none"> • 21 per cent renewable share in electricity generation by 2030 • 17.6 GW solar capacity, 37.4 GW wind capacity by 2050 (IRP 2016)
Eswatini	Renewable electricity	<ul style="list-style-type: none"> • 60 MW of intermittent resources such as solar PV by 2030 • 50 per cent renewable share in energy consumption by 2030
Tanzania	Renewable electricity	<ul style="list-style-type: none"> • 5 per cent renewable share in electricity generation by 2030 (up from less than 1 per cent)
Zambia	Renewable access Biofuel	<ul style="list-style-type: none"> • 200 MW increase in renewable energy capacity by 2020
Zimbabwe	Electricity access Renewable energy Hydropower (small-scale) Biofuel	<ul style="list-style-type: none"> • 1,100 MW increase in renewable energy capacity by 2025; 2,100 MW increase by 2030 (16.5 per cent increase overall) • 2,400 GWh increase in renewable energy generation by 2025; 4,600 GWh increase by 2030 (26.5 per cent increase overall) • Note: targets are conditional on final approval by government.



- o) In its bid to meet the rising demand of electricity, the SADC region is implementing several Generation and Transmission projects across the region. Some of the projects include the following:
- Zambia–Tanzania–Kenya Interconnector
 - Mozambique–Malawi Interconnector and Namibia–Angola Interconnector
 - Zimbabwe–Zambia–Botswana–Namibia Interconnector
 - Mozambique–Zimbabwe–South Africa Interconnector

Petroleum and Gas

- p) The SADC region is endowed with significant deposits of coal (and associated coal bed methane gas), crude oil, shale gas and natural gas. This optimal exploitation could potentially prove to be the 'missing ingredient' in terms of diversifying the region's energy mix, reducing the cost of energy and improving its accessibility to the citizens of the region. It could also reduce carbon dioxide emissions, which are associated with advancing global warming and climate change. Natural gas is becoming more significant to the region's energy sector as Angola, DRC, Madagascar, Mozambique, Namibia, South Africa and Tanzania develop natural-gas fields in their respective countries. Parallel to these developments, countries endowed with coal resources, particularly Botswana, Mozambique, South Africa and Zimbabwe, are redoubling efforts to extract coal-bed methane gas on a commercial scale.
- q) Investments in the oil and gas sector are rising, particularly in Angola, Mozambique and Tanzania due to the vast resources found in those countries. However, the sector is plagued by volatile prices, which have been uncharacteristically low in the past two years, thus generally discouraging investment.
- r) The petroleum and gas industries in the region only exist in the national context with isolated underdeveloped regulatory systems where they do exist. The SADC region has no developed common frameworks aimed at facilitating the development of regional markets and integration of the petroleum and gas sectors within the region.
- s) Presently, most Member States in the petroleum sector have no domestic fuel production capability, but import fuel from other Member States, at different standards. The fuel standards should be harmonised to allow the ease of movement of blended fuels as well as biofuels as blending feedstock within the region. Furthermore, the issues around refinery and storage capacity in the region must be addressed to encourage intra-regional trade especially between the landlocked and coastal Member States.
- t) The projected demand for petroleum products/liquid fuels in the SADC region is expected to grow significantly in the period up to 2027. The projected growth in demand will have to be matched by the expansion of the necessary infrastructure for production, refinery, storage and pipeline/transport that goes with uninterrupted supply to the region.
- u) In 2009, SADC adopted a Framework on Sustainable Biofuels, which provides guidelines for production and development of biofuels. Some Member States are already blending bioethanol with petrol/gasoline, and producing biodiesel to optimise the utilisation of their natural resources while reducing the importation of fuel products. However, the success of this programme will also depend on the harmonisation of fuel specifications and standards in the region. Since 2015, the SADC has been advocating for the migration of the region towards low Sulphur fuels and the introduction of cleaner vehicles, since the use of high Sulphur fuel diesel is still common in the region.
- v) There are several ports to import product to South Africa, but the Port of Durban is deemed the port of entry. From there, the inland areas as well as a number of adjacent SADC countries are supplied. Matola in Mozambique is also an alternative supply route to the Mpumalanga and Gauteng provinces.
- w) Only six countries have proven gas reserves, with Namibia being the only one with no gas production. The remaining SADC countries Lesotho,

Madagascar, Malawi, Mauritius, Seychelles, Swaziland, and Zambia have no known reserves.

- x) The main producers of gas in the SADC region are Angola, Tanzania, DRC and Mozambique. Angola leads the region in deposits of gas and petroleum, while South Africa is rich in shale gas and coal-bed methane gas. Tanzania is emerging as a force in this sector as new discoveries of natural gas continue to be made along its Indian Ocean coast. Mozambique has also seen a rapid expansion of its gas industry since the commissioning of the 865 km-long gas pipeline from the Pande and Temane gas fields in south-central Mozambique to Secunda in South Africa by the multinational Republic of Mozambique Pipeline Investment Company (ROMPCO), headquartered in South Africa.
- y) The Rovuma area, in the far north of Mozambique near the Tanzanian border, has seen positive results of natural gas exploration. Between 150 to 200 trillion cubic feet of gas has been found offshore Mozambique's Cabo Delgado province and final investment decisions have already been made for two liquefied natural gas (LNG) projects, the most recent being Anadarko's Rovuma Area 1 Mozambique LNG project. The final capital estimate has not been made, but Anadarko has indicated that the project will involve two LNG trains with total yearly nameplate capacity of 12.88-million tons.
- z) Separately, the Italian Energy Group, Eni, is building the \$4.7-billion Coral South floating LNG facility, while Eni and ExxonMobil are making progress on an LNG project based on the Rovuma Area 4 block offshore, which will share infrastructure with Anadarko's project. Over the coming two decades, it is estimated that more than \$100-billion will be invested in the territory because of the gas projects and several countries, including Portugal, Brazil and France that are actively mobilizing their business communities around the opportunities associated with Mozambican LNG projects.

¹⁶ World Bank (2018). Overcoming poverty and inequality in South Africa: An assessment of drivers, constraints and opportunities.

- aa) State-owned freight logistics firm, Transnet, plans to launch a tender next year for South Africa's first terminal to import liquefied natural gas (LNG) at Richards Bay port, with first gas expected to land in 2024. The target source of gas for this project is LNG from Mozambique. For this project to be successful, it is of vital importance for South Africa to secure the new gas supplies. Angola and Mozambique are potential LNG suppliers due to their shorter shipping distances, which would give South Africa advantage in securing relatively favourable delivered ex-ship prices.
- bb) In addition, there is also an opportunity for South African companies to explore other business opportunities that will arise from the development of the three multibillion-dollar gas projects in Mozambique. The region in which these megaprojects are to be developed is both rural and remote, which means just about everything that is needed to support the projects, from ports and roads, to housing and retail developments, still has to be built. In other words, this is not only a game changing prospect for Mozambique, but also a significant business opportunity for South African companies, especially those willing to collaborate with local companies in line with Mozambique's localization requirements.

5.1.5. Economic Outlook

- a) According to the South African Reserve Bank, South Africa's current domestic economic performance can be summarised as follows:
 - South Africa's potential is significant, yet growth over the past ten years has not benefitted from the global recovery.
 - The economy is globally positioned, sophisticated, and diversified.
 - The following were identified as binding constraints to growth:
 - o policy uncertainty;
 - o the regulatory environment not being conducive to investment; and
 - o there is no sustained long-term partnership/cooperation between government, business and labour (Social Compact).
 - A recent World Bank Study (2018)¹⁶ on South Africa reveals that it is one of the most unequal economies in the world, with consumption inequality having



- increased since 1994. Wealth inequality is high and has been rising over time.
- Currently, more than 50% of the population lives in poverty and the economy is not generating sufficient jobs, with 29% of the labour force being unemployed.
 - According to statistics from StatsSA, investment as a percentage of GDP has been declining since 2014. The total investment is now at 19.4% of the GDP, down from 23.5% in 2009.

- b) South Africa's per capita growth rate is currently just above 1%, alongside Colombia with 1.8%, Chile with 1.5%, Brazil with 1.1% and Venezuela with -3.9 (2014 data). Among the highest per capita growth rate in 2018 is China with 6.9%, Malaysia with 5.9% and Indonesia with 5.1%.
- c) Real GDP growth in South Africa is expected to remain below 2% through 2019. However, this is not sufficient to make a meaningful dent in unemployment, poverty, and inequality. Global events, including the Eurozone debt crisis (2010–2012) and weak commodity prices (2014–2015) have contributed to the poor domestic growth performance since 2010. However, at least since 2012, a worsening domestic political, policy and socioeconomic climate ensured that SA was unable to benefit fully from the more recent broad-based improvement in global growth and rebound in key commodity prices. Year-on-year, economic growth improved slightly from 0.6% in 2016 to 1.3% in 2017. However, there was a slight dip in 2018 with 0.7% growth recorded.
- d) The average annual consumer price inflation (CPI) was 4.7% in 2018, down from 6.4% in 2016 and 5.3% in 2017. CPI has averaged 5.4% over the past five years, which is in line with the South African Reserve Bank inflation target range. After averaging below 5% in 2018, headline CPI inflation is projected to average of 5.06% during the period of 2019-2023 (BER 2019). This implies that CPI will remain stuck at the lower end of the South African Reserve Bank's (SARB) inflation target band.

- e) The petrol price has increased considerably over the years, with a percentage change of 13.00% in 2018 up from 8.1% in 2017 and 1.4% in 2016. This petrol price is still expected to increase over the coming years, starting with a decrease of approximately 1.2% in 2019. Cumulatively, the 2018 petrol price has increased with 106.2% since 2007 and is expected to continue increasing to 118.2% in 2023.

5.1.6. Impact of BRICS on the Energy Sector

- a) The establishment of the New Development Bank (BRICS Bank) has highlighted its main funding areas as sustainable development and sustainable infrastructure among BRICS countries (Brazil, Russia, India, China and South Africa) and other strategic developing countries (especially in Africa). One of the focus areas of the Bank is to scale up low carbon and climate-resilient investments for sustainable infrastructure, including in particular speeding up the energy transition consistent with the Paris Agreement. The envisaged approach to this is aligning their financial flows with the countries' pathways to low carbon and climate resilient development, increasing the predictability and ease of access to concessional resources, such as the Green Climate Fund, and leveraging private finance for climate investments.
- b) Most of the Bank's projects involve green energy or infrastructure. According to the Bank, between 1 and 1.5 trillion US dollar is needed to fully harness renewable energy among the trading bloc. The bank approved two infrastructure projects with a loan value of US\$413.8 million during the 12th Board of Directors meeting in Shanghai on November 2017. Non-resident portfolio flows into BRICS nations rose to \$166.5 billion in May 2017, up from \$28.3 billion in outflows 12 months prior, according to data compiled by the Institute of International Finance and EPFR Global. The bank sold its first 3 billion (\$437 million) yuan-denominated bonds in China in July 2017, to fund clean energy projects in member states.

c) The BRICS Bank has 25 projects at various stages of preparation for 2018 to 2019, with a total lending amount of \$6 billion. Three of these projects are in South Africa and include the Greenhouse Gas Emissions Reduction and Energy Sector Development Project (US\$300m), Durban Container Terminal Berth Reconstruction Project (US\$200m) and Eskom Renewable Energy (Transmission) project (US\$180m).

d) Between 2003 and 2017, BRICS has invested about US\$3383m in 11 South African Energy projects. This investment translated to 809 jobs created (Deloitte, 2018). However, in January 2018, an agreement was signed between the Russian state energy company Rosatom and the South African government to construct small hydropower plants in Mpumalanga to power rural regions of the country. This is a key component of South Africa's energy security strategy. Each mini hydropower plant is expected to power 250 to 400 houses. This project could be the first of several small hydro projects aimed at generating innovative and affordable energy in South Africa and across the continent.

5.1.7. National Environment

Electricity

a) There is currently no annual growth in electricity demand – there has not been for the last 10 years and there is no sign of that changing. Eskom has 51 943MW of licenced capacity and the renewable licenced capacity is 6 592.7MW. In April 2018, the then Minister of Energy announced the signing of the agreements for the 27 projects procured under the Renewable Energy Independent Power Producer Procurement Programme (REIPPPP) Bid Windows 3.5 and 4. This is by far the biggest Independent Power Producer (IPP) procurement by the Department of Energy to date, representing a total of R56 billion of investment and about 2300MW of generation capacity to be added to the grid over the next 5 years. This investment is injected into the economy by the private sector, with no contribution from Government other than support to Eskom in the event of a default by the buyer. The new projects are as detailed below:

- 15 new wind, solar PV and concentrated solar power (CSP) projects, Northern Cape;
- 4 new wind projects, Eastern Cape;
- 4 new solar PV projects, North West;
- 2 wind projects, Western Cape;
- 1 a biomass project, Mpumalanga; and
- 1 small hydro project, Free State.

b) The Integrated Resource Plan (IRP) 2010–2030 estimated that South Africa would require over 40,000 MW of new generation capacity by 2025. The IRP 2018 was released in August 2018 and should provide clarity on the way forward as well as a predicted price path.

c) The percentage of South African households that were connected to the main electricity supply increased from 76.7% in 2002 to 84.7% in 2018.

- Mains electricity was most common in Limpopo (92.7%), Northern Cape (91.7%), Free State (91.2%) and Mpumalanga (90.7%), and least common in Gauteng (77.7%), KwaZulu-Natal (83.5%) and North West (83.7%).
- The largest increases between 2002 and 2018 were observed in Eastern Cape (36.7%), and Limpopo (21.6%).
- The percentage of households with access to mains electricity actually declined in Gauteng (12.2%) and Western Cape (0.68%). These declines can be associated with the rapid in-migration experienced by these provinces.

Petroleum and Gas Sector

d) Inputs of petroleum products play an important role in transport and production activities of various other sectors of the South African economy. However, South Africa does not have its own economically extractable natural crude oil resources, therefore, South Africa relies on imports of crude oil and refined fuels to meet its liquid fuels needs.



- e) Approximately 11 142 million litres of petrol and 12 539 million litres of diesel were consumed in South Africa in 2018 representing a decrease of 0.28 per cent and an increase of 3.12 per cent respectively compared to 2017 (DoE, 2018). More illuminating and power paraffin was consumed in 2018 than in 2017, with 702 million litres and 648 million litres consumed respectively. This represents a 7.69 per cent increase in paraffin consumption. Approximately 552 million litres of furnace oil were consumed in 2018, representing a 5.25 per cent increase from consumption in 2017. Furthermore, there was a decrease of 9.32 per cent in the consumption of LPG, with 504 million litres and 551 million litres being consumed in 2018 and 2017 respectively.
- f) The majority of South Africa's refinery output is transported via pipeline, but product is also uplifted directly using road, or transported by rail, to other distribution facilities. The Transnet Pipelines Division operates the main liquid petroleum pipeline system running between Durban and the inland region, comprising the Multi-Product Pipeline (MPP) and the crude oil pipeline to Sasolburg servicing the NATREF refinery. It then extends into the northern network with delivery depots in Gauteng (Alrode, Langlaagte, Waltloo, OR Tambo International Airport, Tarlton), North West (Klerksdorp, Rustenburg) and Mpumalanga (Witbank) as well as Free State (Kroonstad). The MPP has a coastal accumulation facility as well as an Inland Accumulation facility. At each of these, as well as at the aforementioned delivery depots, the various NERSA licensees have storage facilities interconnecting to the pipeline system. In the eight national ports, there are also marine loading facilities interconnecting to the coastal refineries and/or storage facilities located within or adjacent to the ports. In the inland areas, the storage facilities are mainly replenished by road or rail. In total, NERSA has issued licences to operate 194 storage facilities, 23 marine loading facilities and 19 pipelines to 59 licensees. As of 31 March 2018, TPL has stopped injecting petroleum products into the Durban-to-Johannesburg Pipeline (DJP) and this pipeline will be decommissioned. In an effort to alleviate the supply burden resulting from demand growth, there were plans to build a 300 000 boe/d refinery located in the Eastern Cape

Province called 'Project Mthombo'. However, the Government recently announced new plans for the refinery to be located in Richards Bay. Current refinery operators are reluctant to expand present capacity due to the high investment cost involved in meeting cleaner fuel standards while there is a surplus of liquid petroleum products available in the international market. Nonetheless, South Africa's refineries are well placed on a cash operating basis within its regional peer group (European and African countries that have more than one refinery), indicating their current competitive situation relative to these other manufacturers.

- g) Total made a significant gas condensate discovery after drilling its Brulpadda prospects on Block 11B/12B in the Outeniqua Basin, offshore South Africa. The area is 175km off the southern coast of South Africa. The estimated gas reserves are in the range of 56 million cubic meters, of which around 450 million cubic meters can be recovered¹⁷.

Gas-to-Power procurement programme

- h) In order to support the implementation of the Integrated Energy Plan, the DMRE is currently finalising the Gas Utilisation Master Plan (GUMP) for South Africa. The GUMP would act as a roadmap for the development of the gas industry in the South African economy. It analyses the potential and opportunity for the development of South Africa's gas economy and sets out a path of how this could be achieved. One of the main objectives is to enable the development of indigenous gas resources and to create the opportunity to stimulate the introduction of a portfolio of gas supply options.
- i) The key challenges in the sector are to bring gas demand and supply on stream at the same time and spread geographically to stimulate broader localised demand. Without local demand, it would be difficult to develop distributed gas supply and without such distributed gas supply, it would be difficult to develop local gas demand. One way of overcoming this challenge is to develop a Gas-to-Power

¹⁷ Report on Development in New Gas Sources in South Africa and Neighbouring Countries for a period of April-June 2019

Programme. This would potentially anchor gas demand while creating a long-term sustainable gas demand. The intention of the Gas-to-Power Programme is not only supplying power, but also supplying a limited amount of gas, marketed in the form of a Gas Supply Agreement (GSA), for use by industrial and other users.

- j) The Gas-to-Power Programme has stalled until the completion and publishing of the Integrated Energy Plan (IEP) and the updated Integrated Resource Plan.

Regulated Energy Industry

- k) Energy is at the core of current and future industrial and technological development. The National Development Plan envisages that the country will have an energy sector that promotes economic growth and development through adequate investment in energy infrastructure by 2030. Furthermore, the plan envisages that South Africa will have an adequate supply of electricity and liquid fuels to ensure that economic activity and welfare are not disrupted and that 95% of the population will have access to some form of energy.

- l) NERSA has commenced with a process to determine the size of the NERSA-regulated activities within the energy sector (Electricity, Piped-Gas and Petroleum Pipelines).

- The Energy Regulator has seen a rapid increase in the number of operational licensees over the 2014 to 2018 period with the exception of 2017 to 2018, where a significant decrease occurred in the electricity distribution space. Currently, there are 367 licensees operating under the regulation of the Energy Regulator. The bulk of these licensees are in the Electricity sector, followed by the Petroleum Pipelines and Piped-Gas sectors respectively.
- In particular, electricity generation has seen a rapid increase in licences issued since the implementation of the DMRE's REIPPPP that was officially launched in 2011. Between 2014 and 2018, an additional 31 licensees were licensed (13% increase).

- In 2017, a decrease of 11 licensees (-5.8%) occurred due to mergers of 26 distribution licensees into 12. Of the 26 merged licensees, four (Indaka, Imbabazane, Ezingoleni and Khara Hais) were under Eskom Distribution.
- The Petroleum Pipelines industry's regulated facilities had a regulated capacity of 16,764,237 m³ transported by pipelines, 12,014,534 m³ in storage facilities and 16,173,861 MT in loading facilities in 2017. Of particular interest is the storage sub-sector, which saw a 12% increase in regulated facilities from 2014 to 2015. There was a slight decline from 2015 to 2016, due to the implementation of the bulk determination by the Regulator.
- The Petroleum Pipelines industry's regulated facilities had a regulated capacity of 22,127,097 m³ transported by pipelines in 2018, 12,329,854 m³ in storage facilities and 16,177,014 MT in loading facilities. Of particular interest is the storage sub-sector, which saw a 12% increase in regulated facilities from 2014 to 2015. There was a slight decline from 2015 to 2016, due to the implementation of the bulk determination by the Regulator.
- With regard to the Electricity sector, there are 131 regulated facilities, of which 30 are owned by Eskom, 16 by general IPPs, 78 by renewable IPPs and 7 by municipalities. This jointly represents 61 074.90MW of electricity generation in the country. There is a 15.48% decrease in the number of regulated facilities from 2017. Interestingly, IPPs combined represent 94 facilities with a capacity of 8 593MW in 2018. This represents an increase of 2.76 per cent of electricity added to the national grid since 2017.
- In addition, as per the Gas Act, the Energy Regulator is mandated to register certain gas activities in order to keep abreast of key developments in the gas industry. As of 2018, 118 biogas facilities and 35 biogas registrants are registered with the Energy Regulator.

- m) There is a significant amount of energy assets in operation under the ambit of the Energy Regulator. As of 2018, there are R830.020 billion worth of



operational assets under regulation, with the Electricity industry being the dominant player representing 94.32%, and 4.56% and 1.11% for Petroleum Pipelines and Piped-Gas respectively.

n) The energy sector is undergoing major reforms with the construction of a number of projects that will add significant amounts of capacity in the short term. As of 2018, there are R430 180 billion assets under construction, of which R146 896 billion assets are in the Electricity sector, R265million in Petroleum Pipelines and R18 283 million in Piped-Gas. The electricity sector's construction projects include the approved DoE REIPPPP projects and Eskom powerprojects. IPPs, in particular, have investment projects worth R66.478billion (45.2%) and Eskom, through its new build programme, accounts for R80 418billion (54.7%), with projects such as Medupi and Kusile power stations still under construction. It should be noted that some of these projects are nearing completion and will be adding significant amounts of electricity to the South African power grid.



5.1.8. PE(R)STEL Factors Analysis

The specific factors considered in the environmental scan are shown in the tables below.

Table 5: Political factors

Political factors	Impact if factor is not addressed	NERSA response to the factor
Electricity Industry Regulation		
1. Municipalities' executive authority for funding of municipal infrastructure	<ul style="list-style-type: none"> Some municipalities are unable to fund, build, operate and maintain adequate electricity infrastructure – which has a negative impact on security of supply 	<ul style="list-style-type: none"> Base approval of municipal tariffs on cost of supply studies
Piped-Gas Industry Regulation		
1. Delays in finalisation of legislative amendments and developments (with specific reference to the Gas IPP and the Gas Utilisation Master Plan)	<ul style="list-style-type: none"> Cost of gas may be too high It may deter / delay entry into the gas market 	<ul style="list-style-type: none"> Develop a report on regulatory advocacy and engagements with relevant policy makers
2. Lack of policy on gas infrastructure investment	<ul style="list-style-type: none"> Uncertainty for investment Lost opportunity to encourage competition in piped-gas industry Impedes growth of the gas market in SA It may deter / delay entry into the gas market 	<ul style="list-style-type: none"> Continued regulatory advocacy and engagements with relevant policy makers Advocate the development of the Gas Utilisation Master Plan, Gas IP, Gas Infrastructure Plan
3. Emerging gas policy in Mozambique	<ul style="list-style-type: none"> Security of gas supply – Supply diversification 	<ul style="list-style-type: none"> Monitor ability of SASOL to supply Undertake regulatory and intergovernmental engagements Monitor utilisation of excess capacity in ROMPCO Pipeline Approve tariffs for SA side of cross border assets to facilitate investment and additional gas supply
4. Regulating the gas market – bundled and unbundled approach to LNG projects	<ul style="list-style-type: none"> May deter infrastructure investments Regulatory uncertainty 	<ul style="list-style-type: none"> Develop a NERSA position paper on regulating the gas market – bundled and unbundled Continued regulatory advocacy and engagements with relevant policy makers Revisit the Gas Rules



Political factors	Impact if factor is not addressed	NERSA response to the factor
5. Alignment of Gas Infrastructure Plan, the IRP and IEP	<ul style="list-style-type: none"> Possible duplication or contradictions Regulatory uncertainty 	<ul style="list-style-type: none"> Continued regulatory advocacy and engagements with relevant policy makers
Petroleum Pipelines Industry Regulation		
<ul style="list-style-type: none"> Geo-political upheavals impacting on petroleum producing transient countries 	<ul style="list-style-type: none"> Higher and volatile fuel prices Rand/dollar exchange rate volatility 	<ul style="list-style-type: none"> Regulatory advocacy on price regulation by the DMRE Participate in fuel price policy and regulatory framework reviews Participating in regional structures dealing with petroleum matters
<ul style="list-style-type: none"> Neighbouring countries finding alternative sources of fuel 	<ul style="list-style-type: none"> Low tariffs through the NMPP and concomitant high tariffs Threats to security of supply 	<ul style="list-style-type: none"> Monitor interventions by Transnet to increase the volumes Regulate in a manner that promotes immigration from pipelines to other modes of transport Participate in supply managers forums and other security of supply committees Continued regulatory advocacy
<ul style="list-style-type: none"> Decline in investment friendliness of South Africa 	<ul style="list-style-type: none"> Further large-scale investments in petroleum infrastructure (and demand sectors) slows down. Petroleum Infrastructure may not be sufficient to meet future demand Decline in fuel demand which can lead to higher tariffs and/or stranded assets 	<ul style="list-style-type: none"> Adjust regulatory framework to attract investments Continued regulatory advocacy and engagements with relevant policy makers to ensure efficiencies Identify and implement key measures to improve regulatory certainty through consistent and defensible decisions, based on world-class regulatory frameworks, methodologies and mechanisms Regulate in a manner that promotes competition
Transversal Regulatory and Organisational		
1. Developmental State	<ul style="list-style-type: none"> Decisions of NERSA could be in conflict with policy 	<ul style="list-style-type: none"> Continued regulatory advocacy and engagements with relevant policy makers
2. Manage interface between different policy thrusts of Government (new growth path, IPAP2)	<ul style="list-style-type: none"> Decisions of NERSA could be in conflict with policy 	<ul style="list-style-type: none"> Make decisions that are not in conflict with the Acts Develop and implement a strategic engagement framework on developing legislation/policy changes

Political factors	Impact if factor is not addressed	NERSA response to the factor
3. Policy gaps and inconsistencies	<ul style="list-style-type: none"> Regulatory uncertainty Lack of credibility of regulatory system 	<ul style="list-style-type: none"> Review impact on NERSA's mandate Continued regulatory advocacy and engagements with relevant policy makers Develop a report on the cost of projects, the impact and implications thereof e.g. Integrated Resource Plan
4. Discussion/debate around nationalisation	<ul style="list-style-type: none"> Uncertainty for investment 	<ul style="list-style-type: none"> Identify and implement key measures to improve regulatory certainty through consistent and defensible decisions, based on world-class regulatory standards, procedures and processes
5. Review of Sustainable Development Goals	<ul style="list-style-type: none"> NERSA may not assist the country in achieving its goals 	<ul style="list-style-type: none"> Regulate in such a manner that accessibility and affordability is enhanced

Table 6: Economic factors

Economic factors	Impact if factor is not addressed	NERSA response to the factor
Electricity Industry Regulation		
1. Lack of competition in electricity supply industry	<ul style="list-style-type: none"> Impact on the ability of the Independent Power Producers to access the industry High electricity prices to industrial consumers 	<ul style="list-style-type: none"> Enforce Third-Party Access through regulatory decisions Amend the dispatch rules to include balancing rules Continued regulatory advocacy and engagements with relevant policy makers
2. Subsidies in Industry	<ul style="list-style-type: none"> Subsidies cause wrong investment decisions 	<ul style="list-style-type: none"> Continued regulatory advocacy and engagements, also focusing on the following: <ul style="list-style-type: none"> approval of municipal tariffs that rationalise application of subsidies; and limiting surpluses that municipalities can accumulate for cross-subsidisation.
3. Electricity Price to commercial entities in the municipalities has reached a critical level	<ul style="list-style-type: none"> Commerce and industry closing down 	<ul style="list-style-type: none"> Develop a paper on tariffs in municipalities, focusing on, among others: <ul style="list-style-type: none"> Influencing tariff structures Determining whether the actual application of tariffs yields expected result.



Economic factors	Impact if factor is not addressed	NERSA response to the factor
4. Impact of poverty	<ul style="list-style-type: none"> • Lack of affordability and accessibility 	<ul style="list-style-type: none"> • Focus on pro-poor regulation
5. Increased consumption of coal by China and India	<ul style="list-style-type: none"> • Security of supply 	<ul style="list-style-type: none"> • Regulate the stock piles • Develop a report on the introduction of renewable energy in the energy mix (taking into account its limitations)
6. Inter-dependency of SADC on SA economy	<ul style="list-style-type: none"> • SADC countries' power plans not realised 	<ul style="list-style-type: none"> • Contribute through regional structures such as RERA towards the realisation of SADC countries' power plans • Review NERSA's role in international trade
7. Low and slow growth of the GDP	<ul style="list-style-type: none"> • Depressed economy leading to less disposable income, which in turn would result in an increase in bad debt and an ESI that is not economically viable. 	<ul style="list-style-type: none"> • Ensure that electricity price increases are kept to the minimum by enforcing efficient licensee operations and ensure that pro-poor regulation is strengthened
8. Credit worthiness of State-Owned Entities (SOEs)	<ul style="list-style-type: none"> • Impact on infrastructure investment due to higher cost of debt and inability to issue bonds • Higher tariffs 	<ul style="list-style-type: none"> • Regulate in a manner that drives efficiency • Set credit rating criteria in the MYPD methodology
9. Drought – water infrastructure	<ul style="list-style-type: none"> • Development of shale gas prospects to encourage gas-to-power projects in the country • Security of supply 	<ul style="list-style-type: none"> • Review the efficient management of water resources in generation of electricity
Piped-Gas Industry Regulation		
1. Lack of competition in gas industry	<ul style="list-style-type: none"> • Barrier to competitive outcomes (key barriers including lack of gas supplies and infrastructure to enable such supplies) • Likely perpetuation of current monopoly in the industry 	<ul style="list-style-type: none"> • Continued regulatory advocacy and engagements with relevant policy makers to facilitate entry • Enforce Third-Party Access through regulatory decisions • Review and implement Maximum Prices Methodology and Tariff Guidelines
2. Lack of infrastructure investment	<ul style="list-style-type: none"> • No growth in the gas market • Lack of gas import infrastructure • Lack of entry of new gas suppliers 	<ul style="list-style-type: none"> • Develop a regulatory advocacy report to the DMRE and IPPs regarding gas-to-power procurement programme • Continued advocacy with policy makers to expedite finalisation of Gas Masterplan and alignment of IEP, IRP and Gas Infrastructure Plan

Economic factors	Impact if factor is not addressed	NERSA response to the factor
3. Economic growth stagnation	<ul style="list-style-type: none"> • May deter investments and present barriers to entry 	<ul style="list-style-type: none"> • Continued advocacy with policy makers
4. Lack of indigenous gas sources	<ul style="list-style-type: none"> • Impact growth of gas industry • Discourage investment • Lack of competition in gas industry 	<ul style="list-style-type: none"> • Continued research and monitoring of developments in new gas sources • Develop and maintain gas trade relations with neighbouring countries. • Explore prospects for LNG imports
5. Gas industrialisation campaign	<ul style="list-style-type: none"> • Ineffective regulation of the gas market 	<ul style="list-style-type: none"> • Continued regulatory advocacy • Undertake intergovernmental engagements
6. Gas supply certainty – Sasol Gas indicated in FY19 that it expects its gas fields to start declining in 2023	<ul style="list-style-type: none"> • Sasol Gas may not be able to meet supply obligations going forward • May jeopardise existence and growth of the gas industry. 	<ul style="list-style-type: none"> • Engagements with relevant stakeholders, including inter alia Sasol Gas, the Industrial Gas Users Association –Southern Africa regarding the viability of potential new sources of supply • Gather data from Sasol Gas in terms of S28 and Regulation 9 of the Gas Act, in terms of which Sasol is expected to provide information on its gas reserves • Continued regulatory advocacy and engagements with relevant policy makers to facilitate the entry of new gas suppliers, and the development of infrastructure to enable such supplies
Petroleum Pipelines Industry Regulation		
1. Low economic growth in South Africa	<ul style="list-style-type: none"> • Reduced demand for liquid fuel • Further large-scale investments in petroleum infrastructure will stop. • Petroleum Infrastructure may not be sufficient to meet future demand 	<ul style="list-style-type: none"> • Identify and implement key measures to improve regulatory certainty through consistent and defensible decisions, based on world-class regulatory standards, procedures and processes.
2. HDSA and B-BBEE participation	<ul style="list-style-type: none"> • No third-party access to storage facilities • Non-transformed petroleum pipelines industry • Social upheavals 	<ul style="list-style-type: none"> • Participate in Charter Counsel • Develop and implement a strategic engagement framework on transformation



Economic factors	Impact if factor is not addressed	NERSA response to the factor
Petroleum Pipelines Industry Regulation		
3. Importation of fuels via trucks through other ports of entry into South Africa	<ul style="list-style-type: none"> • Lower volumes through pipelines leading to higher tariffs. • Disruption of regulatory framework 	<ul style="list-style-type: none"> • Monitor developments in this regard • Continued regulatory advocacy
Transversal Regulatory and Organisational		
1. Impact of environmental levies and the Carbon Tax Act on prices	<ul style="list-style-type: none"> • Impossible to facilitate achievement of affordable energy services 	<ul style="list-style-type: none"> • Develop a position paper on the impact of environmental levies to policy makers
2. Manage interface between different policy thrusts of Government	<ul style="list-style-type: none"> • Decisions of NERSA could be in conflict with policy 	<ul style="list-style-type: none"> • Make decisions that are not in conflict with the Acts • Develop and implement a strategic engagement framework on developing legislation/policy changes
3. Downgrade of South Africa's credit status	<ul style="list-style-type: none"> • Capital flight (foreign and local) 	<ul style="list-style-type: none"> • Identify and implement key measures to improve regulatory certainty through consistent and defensible decisions, based on world-class regulatory standards, procedures and processes.
4. Persistently low economic growth rate	<ul style="list-style-type: none"> • Cost of energy – impact on consumers 	<ul style="list-style-type: none"> • Review tariffs to encourage manufacturing

Table 7: Regulatory factors

Regulatory factors	Impact if factor is not addressed	NERSA response to the factor
Electricity Industry Regulation		
1. Municipal distribution of electricity	<ul style="list-style-type: none"> Continued price diversion between Eskom and municipalities Key national programmes will be undermined Quality of supply Undermine service delivery 	<ul style="list-style-type: none"> Continued regulatory advocacy and engagements, also focusing on the following: <ul style="list-style-type: none"> approval of municipal tariffs based on cost of supply studies; and limiting surpluses that municipalities can accumulate for cross-subsidisation.
2. Compliance monitoring and enforcement of licence conditions	<ul style="list-style-type: none"> Security and quality of supply Affordability and accessibility of electricity 	<ul style="list-style-type: none"> Continued regulatory advocacy and engagements with relevant policy makers, with specific reference to the need for effective punitive measures to be used for non-compliance
3. Information asymmetry	<ul style="list-style-type: none"> Possible incorrect decisions taken due to lack of all relevant information available 	<ul style="list-style-type: none"> Implementation of the Regulatory Reporting System for financial data and a Regulatory Reporting System for non-financial data
4. Insufficient coordination in regulating gas and electricity industries	<ul style="list-style-type: none"> Inconsistent policy messages deterring investment Incorrect signals sent to the market 	<ul style="list-style-type: none"> Strengthen internal coordination and strategic interactions with government structures Collaboration with other regulators to address regulatory asymmetry
5. Management of concurrent jurisdiction with other regulators or institutions	<ul style="list-style-type: none"> Regulatory overlap No clear roles and responsibilities Lack of cooperation may lead to delay in decision making. 	<ul style="list-style-type: none"> Continued regulatory advocacy and engagements with relevant policy makers Develop and implement Memorandums of Understanding (MOUs) and Memorandums of Agreement (MOAs) with appropriate regulators or institutions

Regulatory factors	Impact if factor is not addressed	NERSA response to the factor
Piped-Gas Industry Regulation		
1. Light-handed approach of current regulatory framework and weak enforcement powers	<ul style="list-style-type: none"> • Difficult to effectively enforce regulatory mandate 	<ul style="list-style-type: none"> • Continued regulatory advocacy and engagements with relevant policy makers, with specific reference to the review of the Gas Act and the National Energy Regulator Act • Develop and implement MOUs with the appropriate regulators or institutions, focusing among others on reducing confusion and unnecessary regulatory burden and cost
2. Regulatory gaps and fragmentation of legislation (gas) (not regulating entire value chain)	<ul style="list-style-type: none"> • Unnecessary regulatory burden • Unintended consequences (e.g. High distribution tariffs) • Ineffective regulation of industry 	<ul style="list-style-type: none"> • Report on regulatory advocacy and engagements regarding provisions/ measures to be included in the Gas Amendment Bill
3. Lack of experience in regulating new activities (e.g. LNG, Shale gas, FSRU, regasification)	<ul style="list-style-type: none"> • Inappropriate regulation of new activities 	<ul style="list-style-type: none"> • Develop the rules, norms and standards for the regulation of the new activities • Develop and implement a skills gap analysis and appropriate training for staff in regulating new activities
4. Information asymmetry	<ul style="list-style-type: none"> • Possible incorrect decisions taken due to lack of all relevant information available 	<ul style="list-style-type: none"> • Develop and implement an appropriate method of ensuring the collection of accurate data • Implement the Regulatory Reporting Manuals to overcome information asymmetry
5. Concurrent jurisdiction regarding the regulation of gas	<ul style="list-style-type: none"> • Lack of cooperation may lead to delay in decision making 	<ul style="list-style-type: none"> • Development and implementation of MOUs and MOAs with regulators with concurrent jurisdiction

Regulatory factors	Impact if factor is not addressed	NERSA response to the factor
6. Gaps and inconsistencies between regulations and the Act	<ul style="list-style-type: none"> Regulatory uncertainty Leads to confusion among stakeholders Legal challenges 	<ul style="list-style-type: none"> Continued regulatory advocacy and engagements with relevant policy maker
7. Cross-border regulation and harmonisation of processes, methodologies and procedures	<ul style="list-style-type: none"> Regulatory uncertainty 	<ul style="list-style-type: none"> Continued engagement with INP to harmonise regulatory processes. Finalise and implement MOU with Mozambique regarding sharing of information and mutual co-operation on regulatory matters
8. Complementary jurisdiction misalignment in application of policy objectives	<ul style="list-style-type: none"> Regulatory and investment uncertainty 	<ul style="list-style-type: none"> Continued regulatory advocacy and engagement in with relevant policy makers Develop appropriate MOUs
Petroleum Pipelines Industry Regulation		
1. Concurrent and complementary jurisdiction	<ul style="list-style-type: none"> Regulatory uncertainty 	<ul style="list-style-type: none"> Harmonise regulatory methodologies (internally and externally) Continued regulatory advocacy and engagements with relevant policy makers and other regulators
2. Cross-border regulation and harmonisation of processes, methodologies and procedures	<ul style="list-style-type: none"> Regulatory uncertainty Reduce intra-regional and/or intercontinental trade 	<ul style="list-style-type: none"> Participation in RERA's Petroleum and Gas Regulatory Subcommittee Participation in regional and continental regulatory structures



Regulatory factors	Impact if factor is not addressed	NERSA response to the factor
<ul style="list-style-type: none"> Possible market interventions by Government: biofuels strategic stocks security of supply cleaner fuels New refinery LNG importation 	<ul style="list-style-type: none"> Inadequate regulatory framework 	<ul style="list-style-type: none"> Continued regulatory advocacy and engagements with relevant policy makers Continued participation in SADC structures (e.g. Oil and Gas Subcommittee) Identify potential regulatory process amendments Provide inputs on suggested policy and regulatory amendments Pro-actively engage on possible market interventions and adjust framework accordingly
<ul style="list-style-type: none"> Inconsistency in storage and loading tariff and storage methodology 	<ul style="list-style-type: none"> Undue over-compensation 	<ul style="list-style-type: none"> Revise the methodology
Transversal Regulatory and Organisational		
1. Management of concurrent jurisdiction	<ul style="list-style-type: none"> Regulatory overlap No clear roles and responsibilities 	<ul style="list-style-type: none"> Continued regulatory advocacy and engagements with relevant policy makers Develop and implement MOUs and MOAs with regulators with concurrent jurisdiction
2. Perception of independence of the Regulator	<ul style="list-style-type: none"> Uncertainty for investment 	<ul style="list-style-type: none"> Develop a strategic engagement framework with all role players Develop a proactive communication strategy on NERSA's activities – particularly on how decisions are reached
3. Review of the Energy Regulator Act	<ul style="list-style-type: none"> Negative impact on regulatory ability if identified gaps are not addressed in the Act 	<ul style="list-style-type: none"> Continued regulatory advocacy and engagements with relevant policy makers
4. Implementation of regulatory programmes and projects approved at continental and regional level	<ul style="list-style-type: none"> NERSA may not be in a position to contribute to continental and regional matters that may have an impact on the energy industry, and the country as a whole 	<ul style="list-style-type: none"> NERSA needs to incorporate continental and regional programmes in its regulatory activities (<i>since RSA is a member and an important role player in regional and continental structures, e.g. RERA & AUC</i>)

Table 8: Social factors

Social Factors	Impact if factor is not addressed	NERSA response to the factor
Electricity Industry Regulation		
1. Resistance from consumers to have pre-paid split meters	<ul style="list-style-type: none"> Increased losses (energy and costs) for licensees Ineffective credit control and negative impact on viability of distributors 	<ul style="list-style-type: none"> Consumer education
2. Balancing Inclining Block Tariffs, Free Basic Electricity and social gaps	<ul style="list-style-type: none"> Increased poverty Boycotting of payments of electricity 	<ul style="list-style-type: none"> Continued regulatory advocacy and engagements with relevant policy makers – with specific reference to poverty alleviation measures Undertake a study on effectiveness of current IBT
Piped-Gas Industry Regulation		
1. Implementation of HDSA/B-BBEE participation policy	<ul style="list-style-type: none"> Limited participation in market by HDSA/B-BBEE and industry transformation Access to gas and infrastructure 	<ul style="list-style-type: none"> Ensure third-party access Continued regulatory advocacy and engagements with relevant policy makers – with specific reference to the development of a charter Enforce transformation provisions in BBBEE legislation
2. Uncontrolled building on pipeline servitudes	<ul style="list-style-type: none"> May result in damage to pipelines, posing a threat to security of supply 	<ul style="list-style-type: none"> Increase pressure on licensees to consult with municipalities by monitoring and enforcing compliance with licence conditions and Regulations
3. Skills development	<ul style="list-style-type: none"> Inadequate skills to match new technically inclined developments upstream 	<ul style="list-style-type: none"> Monitor construction plans Ensure skills transfer in interactions with specialist service providers (e.g. skills transfer clauses in service level agreements with consultants) Ensure continued training on new developments in the industry



Social Factors	Impact if factor is not addressed	NERSA response to the factor
Petroleum Pipelines Industry Regulation		
1. Lack of awareness of positioning of pipelines by other relevant authorities	<ul style="list-style-type: none"> Health, safety and environmental risks – bad publicity or reputational risk for NERSA 	<ul style="list-style-type: none"> Public awareness campaigns to explain NERSA's role and responsibilities Monitor and enforce compliance with licence conditions and Regulations for licensees to liaise with municipalities
2. Increase of attempted theft on the pipelines	<ul style="list-style-type: none"> Security of supply compromised Health and safety risk 	<ul style="list-style-type: none"> Monitor and enforce compliance with licence conditions Promote improved coordination and cooperation with other regulatory authorities, municipalities and law enforcement agencies
Transversal Regulatory and Organisational		
1. High level of unemployment	<ul style="list-style-type: none"> Political instability that can affect delivery of infrastructure to the poor 	<ul style="list-style-type: none"> Ensure that NERSA's Internship and Learnership programmes are current and effective Investigate how NERSA can use tariffs to allow licensees to employ young people as apprentices
2. Service delivery protests (consumer activism)	<ul style="list-style-type: none"> Alienated and marginalised communities Potential increase in tariffs 	<ul style="list-style-type: none"> Conduct customer education and public consultation initiatives Develop a position paper on the most appropriate funding mechanisms Develop a position paper on tariff reducing instruments in order to obtain policy clarity
3. Perception of independence of the Regulator	<ul style="list-style-type: none"> Uncertainty for investment 	<ul style="list-style-type: none"> Develop a strategic engagement framework with all role players Develop a proactive communication strategy on NERSA's activities – particularly on how decisions are reached
4. Resistance to energy infrastructure close to settlements	<ul style="list-style-type: none"> Security of supply 	<ul style="list-style-type: none"> Ensure that the sector is ready for expropriation proceedings in terms of the Electricity Regulation Act

Table 9: Technological factors

Technological factors	Impact if factor is not addressed	NERSA response to the factor
Electricity Industry Regulation		
1. Technological innovation e.g. Smart Grid	<ul style="list-style-type: none"> • Security of supply • Stranded assets 	<ul style="list-style-type: none"> • Develop appropriate rules to cater for technological innovation in the sector • Monitor compliance • Develop measures in order to protect user information • Customer education
2. Renewable Generation	<ul style="list-style-type: none"> • Security of supply • SA not meeting environmental targets 	<ul style="list-style-type: none"> • Amend the Grid Code to include dispatch rules • Create market and balancing rules
3. Gas as primary energy source	<ul style="list-style-type: none"> • Security of supply 	<ul style="list-style-type: none"> • Continued regulatory advocacy and engagements with relevant policy makers
4. Nuclear Generation	<ul style="list-style-type: none"> • Security of supply • Higher tariffs 	<ul style="list-style-type: none"> • Develop a report on the introduction of nuclear energy in the energy mix • Conduct customer education • Conduct a skills analysis and develop a strategy to upgrade NERSA skills
5. Energy efficiency	<ul style="list-style-type: none"> • Revenue shortfall for municipalities/distributors/ Eskom 	<ul style="list-style-type: none"> • Continued regulatory advocacy and engagements with relevant policy makers with specific reference to a different funding model for municipalities so that they do not have to depend mainly on electricity revenues • Continued monitoring of the implementation and the impact of energy efficient measures
6. Storage technologies	<ul style="list-style-type: none"> • Could impact prices and security of supply • Will not harness the benefits of e.g. renewable energy, mini grids, etc. 	<ul style="list-style-type: none"> • Create a regulatory environment to include this technology and capacity building of NERSA staff to improve understanding • Develop rules codes to define how these technologies connect with the electricity grid



Technological factors	Impact if factor is not addressed	NERSA response to the factor
Electricity Industry Regulation		
7. Embedded and self-generation	<ul style="list-style-type: none"> • Eskom and Municipal sustainability at risk 	<ul style="list-style-type: none"> • Engage with stakeholders • Develop a framework to address sustainability issues • Develop rules for registration • Develop systems to ensure monitoring to form inputs into planning processes.
Piped-Gas Industry Regulation		
1. Regulatory framework lags technological innovation	<ul style="list-style-type: none"> • Unregulated gas activities (risk) • Deters entry and investment • Regulatory uncertainty • NERSA could be exposed to possible legal action • Ineffective regulation 	<ul style="list-style-type: none"> • Continued regulatory advocacy • Incentivise through tariffs, prices and licensing • Monitor developments in the industry • Ensure that a regulatory framework is developed in order to be ready for the regulation of the industry with technological innovation
2. Lack of piped-gas infrastructure for new technology (Liquefied Natural Gas, regasification, Compressed Natural Gas, Floating Liquefied Natural Gas, Liquefied Natural Gas tanks etc.)	<ul style="list-style-type: none"> • Deters investment and growth of downstream industry 	<ul style="list-style-type: none"> • Continued regulatory advocacy and engagements with relevant policy makers
3. Resistance to new gas technology (e.g. Shale Gas hydraulic fracturing)	<ul style="list-style-type: none"> • SA misses out on opportunity to replace crude imports with domestic GTL 	<ul style="list-style-type: none"> • Conduct research on new gas technology and the impact on regulation • Continuously monitor developments of gas technologies • Review adequacy of current regulatory regime and rules • Continued regulatory advocacy and engagements with relevant policy makers • Conduct a skills analysis and develop a strategy to upgrade NERSA skills on regulation of new gas technologies
4. Lack of gas storage infrastructure	<ul style="list-style-type: none"> • Security of supply could be compromised 	<ul style="list-style-type: none"> • Continued regulatory advocacy and engagements with relevant policy makers

Technological factors	Impact if factor is not addressed	NERSA response to the factor
Petroleum Pipelines Industry Regulation		
1. Alternative forms of energy and technological improvements that reduce demand for petrol	<ul style="list-style-type: none"> • Risk of stranded assets • Risk of bankrupting new entrants • Lower pipeline volumes will lead to higher tariffs, which may result in incentives to use alternative modes of transport 	<ul style="list-style-type: none"> • Forward looking regulatory framework • Monitor trends and potential alignment of tariff methodologies • Create an environment to regulate within changing landscape • Monitor supply and demand
2. Fragmentation of the different product grades of fuel – losing economies of scale	<ul style="list-style-type: none"> • Lower volumes will lead to higher tariffs. Higher Transnet Pipeline costs due to higher interface volumes. • It will reduce available storage capacity for individual products • It will reduce availability of storage capacity per product grade and may consequently further reduce third-party access 	<ul style="list-style-type: none"> • Licence tanks to store more than one type of product
Transversal Regulatory and Organisational		
1. Rapid development in ICT sector	<ul style="list-style-type: none"> • Lost efficiencies and limited communication impact and reach 	<ul style="list-style-type: none"> • Harness technologies to speed up processes and improve efficiency • Implement cyber security controls



Table 10: Environmental factors

Environmental Factors	Impact if factor is not addressed	NERSA response to the factor
Electricity Industry Regulation		
1. Climate change imperatives	<ul style="list-style-type: none"> • Can impact the security of supply because renewable energy generators cannot contribute to meeting peak demand and are unreliable in delivery of energy. • The current high cost of renewable energy generators will impact on the accessibility to all end users. 	<ul style="list-style-type: none"> • Continued regulatory advocacy and engagements with relevant policy makers
2. Environmental activism	<ul style="list-style-type: none"> • Security of supply 	<ul style="list-style-type: none"> • Continued regulatory advocacy and engagements with relevant policy makers
3. Growing awareness of environmental factors	<ul style="list-style-type: none"> • SA not meeting its reduction in greenhouse gas emission targets 	<ul style="list-style-type: none"> • Utilise the Multi-Year Price Determination to facilitate contributing towards the reduction of greenhouse gas emissions
4. Carbon tax (off sets and carbon trading)	<ul style="list-style-type: none"> • Higher prices of all non-renewable energy 	<ul style="list-style-type: none"> • Continued regulatory advocacy and engagements with relevant policy makers • Monitor developments and decisions taken by the G20
5. Minimum Emission Standard	<ul style="list-style-type: none"> • Shutting down of power stations that do not comply • Security of supply 	<ul style="list-style-type: none"> • Sensitise stakeholders on the impact of the standard
Piped-Gas Industry Regulation		
1. Environmental activism, global warming, carbon taxes and emissions reduction	<ul style="list-style-type: none"> • Gas market cannot grow 	<ul style="list-style-type: none"> • Continued regulatory advocacy and engagements with relevant policy makers – specifically to promote gas as a more attractive option and environmentally friendly energy source • Monitor developments and decisions taken by the G20 and climate change agreements
2. Shale Gas hydraulic fracturing perceived as an environmental threat	<ul style="list-style-type: none"> • SA misses out on shale gas potential • SA misses out on an opportunity to become energy self-sufficient 	<ul style="list-style-type: none"> • Conduct research on shale gas and the environment • Continued regulatory advocacy and engagements with relevant policy makers • Participate in national debate on shale gas and task teams where possible

Environmental Factors	Impact if factor is not addressed	NERSA response to the factor
Petroleum Pipelines Industry Regulation		
1. Reduction of carbon emissions	<ul style="list-style-type: none">• Additional cost to the economy with no alternative fuel source of any scale• Taxes applied by the economy cannot respond to the signal	<ul style="list-style-type: none">• Develop a report on the impact of the introduction of the Carbon Tax Act
2. Automotive industry is globally moving towards cleaner fuels and the market demand for cleaner fuels is increasing.		
Transversal Regulatory and Organisational		
1. Environmental levies and Carbon tax policy	<ul style="list-style-type: none">• SA not meeting its environmental targets• Lack of affordability• Policy uncertainty	<ul style="list-style-type: none">• Continued regulatory advocacy and engagements with relevant policy makers• Monitor developments and decisions taken by the G20
2. Delays in issuing environmental Impact Assessments	<ul style="list-style-type: none">• Security of supply	<ul style="list-style-type: none">• Continued regulatory advocacy and engagements with relevant policy makers
3. Health and Safety	<ul style="list-style-type: none">• Possible environmental disasters such as petroleum/ gas leaks from pipelines, wind turbine blades coming loose etc.	<ul style="list-style-type: none">• NERSA to ensure that it discharges its responsibility regarding health and safety

Table 11: Legal factors

Legal factors	Impact if factor is not addressed	NERSA response to the factor
Electricity Industry Regulation		
1. Electricity Regulation Act under review	<ul style="list-style-type: none"> It will compromise the regulation of electricity supply industry 	<ul style="list-style-type: none"> Continued regulatory advocacy and engagements with relevant policy makers, with specific reference to the need for effective regulation of electricity supply industry
2. Regulatory Principles compromise	<ul style="list-style-type: none"> Loss of credibility Listed as Regulatory Risk NERSA subject to liability claims 	<ul style="list-style-type: none"> Make sure all decisions are made in accordance with sound regulatory principles.



Legal factors	Impact if factor is not addressed	NERSA response to the factor
Piped-Gas Industry Regulation		
1. Delays in legislative amendments and developments	<ul style="list-style-type: none"> • May deter entry into the gas market • Weak mandate on regulation of piped-gas • Uncertainty in terms of the separation of the oil and gas provision in the Bill 	<ul style="list-style-type: none"> • Continued regulatory advocacy and engagements with relevant policy makers
Petroleum Pipelines Industry Regulation		
1. Fragmentation of legislations – possible consolidation of downstream petroleum legislation	<ul style="list-style-type: none"> • Regulatory burden to licensees • Duplication of resources 	<ul style="list-style-type: none"> • Continued regulatory advocacy and engagements with relevant policy makers • Prepare for defragmentation
2. Possible legal / legislative intervention: <ul style="list-style-type: none"> • Petroleum Liquid Fuels Sector Codes • Petroleum Pipelines Act and Regulations • Mineral and Petroleum Resources Act 	<ul style="list-style-type: none"> • Regulatory uncertainty • Non-compliance with the BBBEE Act in issuing licenses 	<ul style="list-style-type: none"> • Continued regulatory advocacy and engagements with relevant policy makers • Continued efficient regulation • Amend licensing rules to include BBBEE requirements
Transversal Regulatory and Organisational		
1. National Energy Regulator Amendment Bill	<ul style="list-style-type: none"> • NERSA's views not taken into consideration • NERSA not ready when the National Energy Regulator Amendment Bill becomes operational 	<ul style="list-style-type: none"> • Continued regulatory advocacy and engagements with relevant policy makers Regulatory Advocacy • Proactively start preparing for a change in mandate
2. Ability to influence supplementary legislation	<ul style="list-style-type: none"> • NERSA's views not included • NERSA's powers weakened 	<ul style="list-style-type: none"> • Develop a strategic engagement framework on developing legislation/policy changes • Continued regulatory advocacy and engagements with relevant policy makers
3. Compliance with regulatory requirements (Public Finance Management Act and others)		
4. Fragmentation of legislations		
5. Infrastructure Development Act	<ul style="list-style-type: none"> • Expectation to fund out of tariff and tax instead of by investment. 	<ul style="list-style-type: none"> • Develop a position paper on what the funding model should be
6. Pending legal cases	<ul style="list-style-type: none"> • Uncertainty on regulatory decisions and regulatory tools 	<ul style="list-style-type: none"> • Implement decisions of the court as soon as the judgement is given

5.2. INTERNAL ENVIRONMENT ANALYSIS

5.2.1. Organisational Capacity

a) NERSA has an approved structure of 253 staff members. The staff strength as at 31 January 2020 is 250. This includes the 224 permanent employees, three Full-Time Regulator Members (FTRMs), 4 fixed-term contract employees and 19 interns.

b) Table 12 below summarises the staff complement of NERSA.

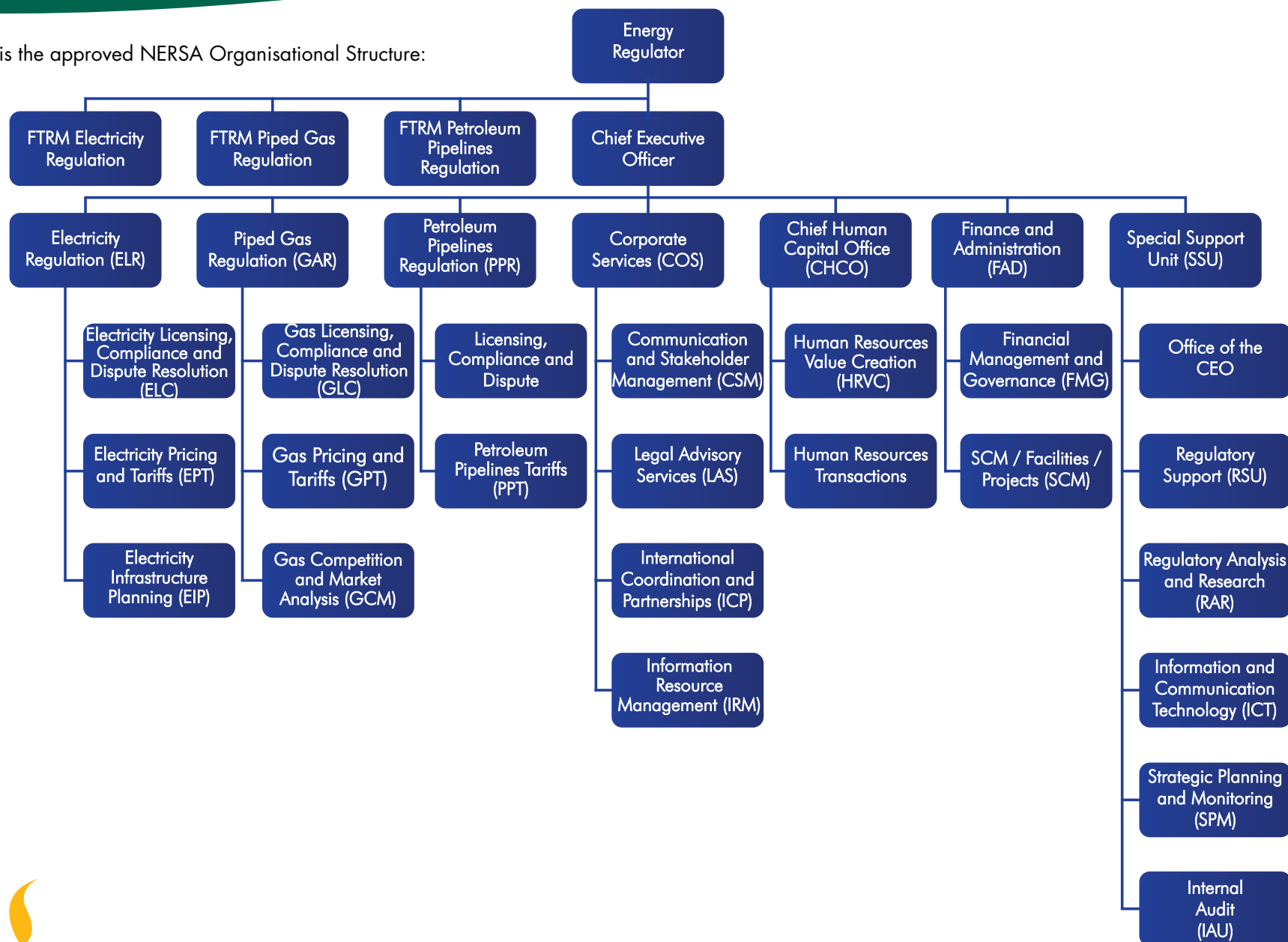
Table 12: NERSA Staff complement

DIVISION	DEPARTMENT	COMPLEMENT
Electricity Regulation (ELR)	FTRM	3
	Executive	3
	Electricity Pricing and Tariffs (EPT)	35
	Electricity Licensing, Compliance and Dispute Resolution (ELC)	34
	Electricity Infrastructure Planning (EIP)	13
Total		88
Piped-Gas Regulation (GAR)	FTRM	3
	Executive	5
	Gas Pricing and Tariffs (GPT)	8
	Gas Licensing, Compliance and Dispute Resolution (GLC)	11
	Gas, Competition and Market Analysis (GCM)	4
Total		31
Petroleum Pipelines Regulation (PPR)	FTRM	3
	Executive	6
	Petroleum Pipelines Tariffs (PPT)	9
	Petroleum Licensing, Compliance and Dispute Resolution (PLC)	9
Total		27



DIVISION	DEPARTMENT	COMPLEMENT
Finance and Administration (CFO)	Executive	3
	Financial Management and Governance (FMG)	7
	Supply Chain Management	13
Total		23
Human Resources (CHO)	Executive	2
	Human Resources – Value Creation	8
	Human Resources -Transactions	3
Total		13
Corporate Services (COS)	Executive	3
	Legal Advisory Services (LAS)	6
	Communication and Stakeholder Management (CSM)	9
	International Co-ordination and Partnerships (ICP)	3
	Information Resources Management (IRM)	7
	Information and Communication Technology (ICT)	10
Total		38
Specialised Support Units (SSU)	Internal Audit (IAU)	7
	Strategic Planning and Monitoring (SPM)	4
	Regulator Support (RSU)	11
	CEO's Office Operations (COO)	5
	Regulatory Analysis and Research (RAR)	6
Total		33
Grand Total NERSA Staff Complement		253

c) Below is the approved NERSA Organisational Structure:



5.2.2. Status regarding compliance with the BBBEE Act

In 2017 /2018, NERSA embarked on its first B-BBEE accreditation and was awarded a Level eight (8) B-BBEE contribution status level. According to the BBBEE report, NERSA was accredited a Level seven (7) B-BBEE contribution Status. However, because NERSA's skills development and enterprise development did not meet the minimum threshold, NERSA was discounted to a Level eight (8) contribution level. Plans have been developed and implemented to improve the skills development and enterprise development requirements. In March 2019 the Energy Regulator approved the Enterprise Development Strategy and implementation commenced from April 2019.

5.2.3. Status regarding women and people with disabilities

- a) As at the end of 31 January 2020, NERSA's staff strength is 224 and comprises 97 (43%) males and 127 (57%) females.
- b) As at the end of 31 January 2020, there are 12 (52%) females and 11 (48%) males in management positions.
- c) As at the end of 31 January 2020, the percentage of persons with disabilities is 2%.

PART C: MEASURING OUR PERFORMANCE

1. INSTITUTIONAL PERFORMANCE INFORMATION

NERSA's mandate is to regulate the electricity, piped-gas and petroleum pipelines industries in line with each industry's specific legislation and regulations. Therefore, this part of the Strategic Plan will be divided into sections for each of the regulated industries as well as a section dealing with transversal regulatory and organisational matters.

2. IMPACT STATEMENT

In line with Government's priorities, NERSA's overall impact statement is as follows:

Secure, reliable, affordable, sustainable, competitive and transformed energy industry, which contributes to the economic growth of South Africa.

3. MEASURING OUR OUTCOMES

The attainment of the above impact statement will be driven by the industry specific and organisational impact statements and accompanying outcomes, as described in the sections below.

3.1. ELECTRICITY INDUSTRY REGULATION

Impact Statement	Efficient, effective, sustainable and orderly development and operation of a competitive electricity supply industry in South Africa		
Outcome	Outcome Indicator	Baseline	Five year target
1. Accessible and affordable electricity for all citizens	1.1. Energy Regulator decision on the review of Eskom's revenue application for year 1 of MYPD 5 considered by the relevant committee or the Energy Regulator within the stated timeframe of receiving all the required information for the application	Approved MYPD 4	Energy Regulator decision on the review of Eskom's revenue application for year 1 of MYPD 5 considered by the ER within 6 months after receipt of complete application
	1.2. Percentage of complete tariff applications of licensed distributors considered by the relevant committee or the Energy Regulator within the stated timeframe	100% of complete tariff applications of licensed distributors considered by the REC/ELS within 60 working days of receipt of complete application	100% of complete tariff applications of licensed distributors considered by the REC/ELS within 60 working days of receipt of complete application
2. Energy supply that is certain and secure for current and future user needs through the orderly development and operation of the electricity supply infrastructure	2.1. Percentage of complete applications for a licence or for the registration of electricity generation activities are considered by the relevant committee or the Energy Regulator within the stated timeframes of receiving all the required information for the application	<ul style="list-style-type: none"> • 100% of complete licence applications considered by the ER within 120 working days after the period of objections expired and no objections were received or after objections are addressed • 100% of complete applications for registration of electricity generation facilities considered by the ELS within 60 days from receipt of all required information 	<ul style="list-style-type: none"> • 100% of complete licence applications considered by the ER within 120 working days after the period of objections expired and no objections were received or after objections are addressed • 100% of complete applications for registration of electricity generation facilities considered by the ELS within 60 days from receipt of all required information
	2.2. Approved regulatory framework for the licensing of the restructured electricity supply industry following the unbundling of Eskom	Approved regulatory framework for the licensing of the current electricity generation activities	Approved regulatory framework for the licensing of the restructured electricity supply industry following the unbundling of Eskom by 31 March 2025



Outcome	Outcome Indicator	Baseline	Five year target
	2.3. Number of audit reports on the state of compliance with licence conditions considered by the relevant committee or the Energy Regulator within the stated timeframe	3 audit reports on the state of compliance with licence conditions considered by the ELS/REC by 31 March (one each for generation, transmission and distribution)	3 audit reports (one each for generation, transmission and distribution on the state of compliance with licence conditions) considered annually by the ELS/REC by 31 March
	2.4. Number of reports on the System Adequacy considered by the relevant committee or the Energy Regulator within the stated timeframe	1 report on the System Adequacy considered annually by the ELS/REC by 31 March	1 report on the System Adequacy considered annually by the ELS/REC by 31 March
	2.5. Number of reports on the performance of renewable technologies considered by the relevant committee or the Energy Regulator within the stated timeframe	1 report on the System Adequacy considered annually by the ELS/REC by 31 March	1 report on the System Adequacy considered annually by the ELS/REC by 31 March
	2.6. Number of reports on the analysis of Eskom's performance based on submitted Regulatory Financial Reports (RFRs) considered by the relevant committee or the Energy Regulator within the stated timeframe	1 report on the analysis of Eskom's actual performance based on submitted Regulatory Financial Reports (RFRs) considered by the ELS/REC within 3 months after receipt of completed RFRs from Eskom	1 report on the analysis of Eskom's actual performance based on submitted Regulatory Financial Reports (RFRs) considered by the ELS/REC within 3 months after receipt of completed RFRs from Eskom
3. A regulatory environment that facilitates investment in electricity infrastructure	3.1. Number of reports on new entrants into the electricity supply industry considered by the relevant committee or the Energy Regulator within the stated timeframe	1 report on new entrants into the electricity supply industry considered annually by the ELS by 31 March	1 report on new entrants into the electricity supply industry considered annually by the ELS by 31 March
	3.2. Number of reports on refurbishments and upgrades of electricity infrastructure considered by the relevant committee or the Energy Regulator within the stated timeframe	1 report on refurbishments and upgrades of electricity infrastructure considered annually by the ELS by 31 March	1 report on refurbishments and upgrades of electricity infrastructure considered annually by the ELS by 31 March
4. Regulatory certainty within the electricity industry	4.1. Approved revenues and tariffs to facilitate the sustainability of electricity supply considered by the relevant committee or the Energy Regulator within the stated timeframe	Energy Regulator decision on the review of Eskom's submission on ERTSA for the coming financial year considered by the by the ELS/REC within 6 months after receipt of complete application	Energy Regulator decision on the review of Eskom's submission on ERTSA for the coming financial year considered by the by the ELS/REC within 6 months after receipt of complete application
		Approved tariff methodology for current electricity supply industry	Approved tariff methodology for the restructured electricity supply industry following the unbundling of Eskom considered by the ER by 31 March 2025

Outcome	Outcome Indicator	Baseline	Five year target
	4.2. Percentage of applications from the ESI requiring amendment to or exemption from the South African grid code, considered by the relevant committee or the Energy Regulator within stated timeframe from receipt of complete information	100% applications from the ESI requiring amendment to or exemption from the South African grid code considered by the ELS/REC within 3 months from receipt of complete information	100% applications from the ESI requiring amendment to or exemption from the South African grid code considered by the ELS/REC within 3 months from receipt of complete information
	4.3. Number of reports on regulatory advocacy aimed at improvement of the regulatory framework provided through legislation, regulation and government policies considered by the relevant committee or the Energy Regulator within stated timeframe	1 report on regulatory advocacy aimed at improvement of the regulatory framework provided through legislation, regulation and government policies considered annually by the ELS by 31 March	1 report on regulatory advocacy aimed at improvement of the regulatory framework provided through legislation, regulation and government policies considered annually by the ELS by 31 March

3.1.1. Explanation of Planned Performance over the Five Year Planning Period

a) The rationale for the choice of the outcome indicators relevant to the respective outcomes is aligned with legislative requirements.

- To approve municipal tariffs that ensure the financial viability and sustainability of all licensed municipal distributors while also protecting the poor from rapidly increasing electricity prices;
- To approve Eskom's revenue requirements and prices/tariffs that allows for the sustainability of Eskom and therefore overall viability of the electricity supply industry.
- Ensure certainty for new licensees, in making sure they know all the applicable conditions in order to be connected to the grid.
- Ensure oversight of non-compliance to Grid Code to ensure speedy compliance
- Ensure risk mitigating measures are implemented in time to support security of supply
- Medium to long term infrastructure development planning is implemented according to the set license conditions

b) The following enablers were identified to achieve the five-year targets:

- Revised MYPD methodology;

- Monitoring of licensed distributor's performance;
- Tariff methodology;
- Wheeling methodology;
- Automated assistance to the licensing application and evaluation process;
- Grid Governance Code;
- Restructuring of the electricity supply industry; and
- Increasing resources within NERSA.

c) The identified outcomes should contribute as follows to the achievement of the impact statement:

- Sustainability of the electricity supply industry;
- Protection of the poor from rapidly increasing electricity prices;
- Make available grid code requirement for each technology;
- Audits will highlight areas of need and tariff decisions will provide funds to perform refurbishment;
- An up-to-date data base containing all submitted information in a format that can be easily interrogated;
- Reporting requirements are regularized by inclusion in the Grid Code;
- Encourage entry of new players;
- The licensing of operators ensures orderly development and the license conditions ensure that the licensees comply with proper standards;
- Regulatory certainty through appropriate pricing and tariffs methodologies.



3.2. PIPED-GAS INDUSTRY REGULATION

Impact Statement

Efficient, effective, sustainable and orderly development and operation of a competitive piped-gas industry in order to enable efficient switching to and utilisation of gas in the economy.

Outcome	Outcome Indicator	Baseline	Five year target
1. Access to competitive gas prices and gas services	1.1. Percentage of complete maximum price applications considered by the relevant committee or the Energy Regulator within the stated timeframe	100% of complete maximum price applications considered by the ER within 120 working days after date of publication of the preliminary assessment of the maximum price applications	100% of complete maximum price applications considered by the ER within 120 working days after date of publication of the preliminary assessment of the maximum price applications
	1.2. Percentage of complete transmission tariff applications considered by the relevant committee or the Energy Regulator within the stated timeframe	100% of complete transmission tariff applications considered by the ER within 120 working days after date of publication of preliminary assessment of tariff applications	100% of complete transmission tariff applications considered by the ER within 120 working days after date of publication of preliminary assessment of tariff applications
	1.3. Percentage of complete trading margin applications considered by the relevant committee or the Energy Regulator within the stated timeframe	100% of complete trading margin applications considered by the ER within 120 working days after the date of the publication of the preliminary assessment of the applications	100% of complete trading margin applications considered by the ER within 120 working days after the date of the publication of the preliminary assessment of the applications
	1.4. Number of reports on the review of the definition of the piped-gas market considered by the relevant committee or the Energy Regulator within the stated timeframe	No report available	1 report on the review of the definition of the piped-gas market considered annually by the PGS by 31 March

Outcome	Outcome Indicator	Baseline	Five year target
2. Efficient, sustainable and orderly development of the piped-gas industry aimed at security of supply	2.1. Percentage of complete licence applications considered by the relevant committee or the Energy Regulator within the stated timeframe	100% of complete applications considered by the PGS/REC within 60 working days from date of close of public comment period or period of applicant's response to objections received	100% of complete applications considered by the PGS/REC within 60 working days from date of close of public comment period or period of applicant's response to objections received
	2.2. Percentage of complete registration applications of gas activities considered by the relevant committee or the Energy Regulator within the stated timeframe	100% of complete applications for the registration of gas activities are processed and considered by the PGS within 60 working days from date of close of public comment period	100% of complete applications for the registration of gas activities are processed and considered by the PGS within 60 working days from date of close of public comment period
	2.3. Number of audits conducted on the ROMPCO pipeline according to the compliance frameworks and audit report considered by the relevant committee or the Energy Regulator within the stated timeframe	1 audit conducted annually and audit report considered by the PGS by 31 March	1 audit conducted annually and audit report considered by the PGS by 31 March
	2.4. Number of monthly volume balance reports assessed and analysis reports to monitor the supply of 120m GJ p.a. from Mozambique to South Africa considered by the relevant committee or the Energy Regulator within the stated timeframe	12 monthly volume balance reports considered annually by the PGS by 31 March	12 monthly volume balance reports considered annually by the PGS by 31 March
	2.5. Number of inspections conducted, non-compliance notices issued (where necessary) and inspection reports considered by the relevant committee or the Energy Regulator within the stated timeframe	45 inspections conducted and 4 reports considered annually by the PGS by 31 March	50 inspections conducted and 4 reports considered annually by the PGS by 31 March (It should be noted that the number of planned inspection for each financial year will be stated in the Annual Performance Plan,)
	2.6. Number of reports on the assessment of criteria for the allocation of uncommitted capacity considered by the relevant committee or the Energy Regulator within the stated timeframe	No report available	1 report assessment of criteria for the allocation of uncommitted capacity considered annually by the PGS by 31 March



Outcome	Outcome Indicator	Baseline	Five year target
3. A regulatory environment that facilitates investment in piped-gas infrastructure	3.1. Number of reports on the implementation of the reviewed mechanism for enforcement of 3rd party access considered by the relevant committee or the Energy Regulator within the stated timeframe	No report available	1 report on the implementation of the reviewed mechanism for enforcement of 3rd party access considered annually by the PGS by 31 March
	3.2. Number of reports on the engagements on harmonised requirements/ processes for regulation of cross border assets between SA and Mozambique considered by the relevant committee or the Energy Regulator within the stated timeframe	No report available	1 report on the engagements on harmonised requirements/ processes for regulation of cross border assets between SA and Mozambique considered by the PGS by 31 March 2025
4. A competitive piped-gas industry	4.1. Number of reports on the assessment of adequacy of competition in the piped-gas industry considered by the relevant committee or the Energy Regulator within the stated timeframe	2018/19 report on the adequacy of competition in the piped-gas sector.	1 report on the assessment of adequacy of competition in the piped-gas industry considered by the PGS by 31 March 2025
5. Regulatory certainty within the piped-gas industry	5.1. Number of reports on regulatory mechanisms required for the review of licensing rules considered by the relevant committee or the Energy Regulator within the stated timeframe	No report available	1 report on regulatory mechanisms required for the review of licensing rules considered by the PGS by 31 March 2022
	5.2. Revised tariff methodology considered by the relevant committee or the Energy Regulator within the stated timeframe	Current tariff methodology	Revised tariff methodology considered by the ER by March 2025
	5.3. Number reports on the review of the framework for conducting adequacy of competition in the gas industry considered by the relevant committee or the Energy Regulator within the stated timeframe	Approved framework for the determination of the adequacy of competition in the gas sector	Report on the review of the framework for conducting adequacy of competition in the gas industry considered by the PGS by 31 March 2021
	5.4. Number of reports on regulatory advocacy aimed at improvement of the regulatory framework provided through legislation, regulation and government policies considered by the relevant committee or the Energy Regulator within the stated timeframe	1 report on regulatory advocacy considered annually by the PGS by 31 March	1 report on regulatory advocacy considered annually by the PGS by 31 March

3.2.1. Explanation of Planned Performance over the Five Year Planning Period

- a) The rationale for the choice of the outcome indicators relevant to the respective outcomes are the following:
 - To allow customers to have a choice on the source of supply which will improve customer countervailing power, as well as the quality, cost and efficiency of supply of gas;
 - To promote enhanced entry into the gas supply market;
 - To improve access to gas supply and services;
 - To facilitate the growth of the gas sector in support of industrialization;
 - To increase access to and utilisation of gas in the market;
 - To promote compliance with licence conditions; and
 - To facilitate effective regulation of cross border assets.
- b) The following enablers to achieve the five-year targets were identified:
 - Revised methodology for gas prices and tariffs to attract investment;
 - Efficient licensing of gas infrastructure;
 - Enforce 3rd party access;
 - Efficient licensing framework;
 - Conduct periodic assessment of adequacy of competition;
 - Compliance investigations;
 - Audits for compliance monitoring;
 - Notices of non-compliance';
 - Anchor customer required and commitment on volume intake from industry
- c) The identified outcomes will contribute to the achievement of the impact as follows:
 - Improved competition, leading to more competitive pricing and wider choice for customers;
 - Improve security of supply;
 - Promote import competition;
 - Growth in gas imports and production;
 - Switching to gas as an alternative energy source;
 - Review of Methodologies and the tariff guidelines;
 - Enforcement of third party access; and
 - Harmonisation of cross border regulatory processes.



3.3. PETROLEUM PIPELINES INDUSTRY REGULATION

Impact Statement	Efficient, effective, sustainable and orderly development and operation of a competitive petroleum pipelines industry
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Outcome	Outcome Indicator	Baseline	Five year target
1. Access to petroleum infrastructure	1.1. Number of reports on the percentage utilisation of pipelines, storage facilities and loading facilities and third party access considered by the relevant committee or the Energy Regulator	2 reports on the percentage utilisation of pipelines, storage facilities and loading facilities and third party access considered annually by the PPS by 31 March	1 report on the percentage utilisation of pipelines, storage facilities and loading facilities and third party access considered annually by the PPS by 31 March
	1.2. Percentage of complete pipeline, storage and loading facility tariff applications considered by the relevant committee or the Energy Regulator within the stated timeframe	75% of complete pipeline, storage and loading facility tariff applications considered by the PPS/ER within 6 months from receipt of application	75% of complete pipeline, storage and loading facility tariff applications considered by the PPS/ER within 6 months from receipt of application
2. Efficient, sustainable and orderly development of a transformed petroleum pipelines industry aimed at security of supply	2.1. Percentage of complete licence applications considered by the relevant committee or the Energy Regulator within the stated timeframe	100% of complete licence applications considered by the PPS/REC/ER within 60 working days under the conditions as prescribed in Section 19(1) of the Petroleum Pipelines Act	100% of complete licence applications considered by the PPS/REC/ER within 60 working days under the conditions as prescribed in Section 19(1) of the Petroleum Pipelines Act
	2.2. Percentage of complete applications for licence amendments / revocations considered by the relevant committee or the Energy Regulator within the stated timeframe	100% of complete applications for licence amendments / revocations considered by the PPS/REC/ER within 60 working days under the conditions as prescribed in Sections 23 or 24 of the Petroleum Pipelines Act	100% of complete applications for licence amendments / revocations considered by the PPS/REC/ER within 60 working days under the conditions as prescribed in Sections 23 or 24 of the Petroleum Pipelines Act

Outcome	Outcome Indicator	Baseline	Five year target
3. A regulatory environment that provides regulatory certainty and facilitates investment in petroleum pipeline infrastructure	3.1. Reviewed tariff methodology for storage, loading facilities and petroleum pipelines considered by the relevant committee or the Energy Regulator within the stated timeframe	Commenced with the review of the tariff methodology for storage and loading facilities to provide regulatory certainty and facilitate investment in the industry.	Approved reviewed tariff methodology for storage and loading facilities by 31 March 2025
		Approved tariff methodology for petroleum pipelines	
	3.2. Number of reports on regulatory advocacy aimed at improvement of the regulatory framework provided through legislation, regulation and government policies for the petroleum pipelines industry considered by the relevant committee or the Energy Regulator within the stated timeframe	1 report on regulatory advocacy considered annually by the PPS by 31 March	1 report on regulatory advocacy considered annually by the PPS by 31 March
4. A competitive petroleum pipelines industry	4.1. Number of reports on new entrants into the petroleum pipelines industry considered by the relevant committee or the Energy Regulator within the stated timeframe	No report available	1 report on new entrants into the petroleum pipelines industry considered annually by the PPS by 31 March
	4.2. Percentage of licensees compliant with BEE Act within the stated timeframe	<ul style="list-style-type: none"> • 5.1% (3/59) licensees of storage facilities are 100% compliant with BEE Act • All new license applications compliant with BEE Act 	50% of licensees of storage facilities are 100% compliant with BEE Act
	4.3. Number of reports on the geographic spread petroleum pipelines infrastructure considered by the relevant committee or the Energy Regulator within the stated timeframe	No report available	1 report on the geographic spread of petroleum pipelines infrastructure considered annually by the PPS by 31 March
	4.4. Number of reports on the pipelines, storage and loading licenses issued considered by the relevant committee or the Energy Regulator within the stated timeframe	No report available	1 report on the pipelines, storage and loading licenses issued considered annually by the PPS by 31 March



3.3.1. Explanation of Planned Performance over the Five Year Planning Period

- a) The rationale for the choice of the outcome indicators relevant to the respective outcomes are the following:
- To promote competition in the construction.
 - To facilitate access to affordable petroleum products.
- b) The following enablers to achieve the five-year targets were identified:
- Enabling legislation to be amended;
 - Revised tariff methodology;
 - Benchmark study to be able to assess prudency;
 - Efficient processing of applications;
 - Review of licensing rules;

- Enforcement of compliance by the Tribunal; and
- Audits for compliance monitoring.

- c) The identified outcomes will contribute to the achievement of the impact as follows:
- Lower the barriers to entry;
 - More transformed Industry;
 - Affordable tariffs;
 - Promote import competition;
 - Sufficient capacity to meet market demand;
 - Revised enabling legislation;
 - Reduced regulatory burden;
 - Improved third party access; and
 - Harmonized regulatory framework.

3.4. TRANSVERSAL REGULATORY AND ORGANISATIONAL

Impact Statement	NERSA established as an efficient and effective regulator
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Outcome	Outcome Indicator	Baseline	Five year target
1. An enabling environment for the benefit of internal and external stakeholders with a skilled workforce that is empowered to work in a complex and ambiguous environment	1.1. Percentage of business processes are automated and efficient within the stated timeframe	Majority of business processes are manual	70% of processes are automated and efficient by 31 March 2025
	1.2. Percentage of regulatory processes is based on appropriate Research within stated timeframe	None	100% of regulatory processes is based on appropriate research by 31 March 2025
	1.3. Number of reports on partnership creation to position NERSA as a recognised regulator nationally, regionally and internationally considered by the relevant committee or the Energy Regulator within the stated timeframe	2 reports on partnership creation to position NERSA as a recognised regulator nationally, regionally and internationally considered annually by the REC by 31 March	2 reports on partnership creation to position NERSA as a recognised regulator nationally, regionally and internationally considered annually by the REC by 31 March
	1.4. Number of reports on the implementation of the Learnership and Internship Programmes considered by the relevant committee or the Energy Regulator within the stated timeframe	1 report on the implementation of the Learnership and Internship Programmes considered annually by the HRRC by 31 March	1 report on the implementation of the Learnership and Internship Programmes considered annually by the HRRC by 31 March

3.4.1. Explanation of Planned Performance over the Five Year Planning Period

- a) The rationale for the choice of the outcome indicators relevant to the respective outcomes is to focus on the key requirement for the effective operations of the Energy Regulator.
- b) The following enablers to achieve the five-year targets were identified:
 - Improved data analysis
 - Trends analysis (market study)
 - Speedy processing of applications
 - GIS
 - Reviewed PPA
 - Online application system
- c) The identified outcomes will contribute to the achievement of the impact as follows:
 - Proactively improving critical business and regulatory processes



4. KEY RISKS

The key risks which may affect the achievement of the identified outcomes are those that need to be mitigated in the medium to long-term, as the critical mitigating strategies relates to amendment of legislations and regulation which falls within the ambit.

NERSA's Integrated Enterprise Risk Management Framework provides for processes to manage the mitigating identified risks with quarterly reporting on progress made with the mitigating strategies. These strategies are solely within NERSA's control to mitigate the identified risks.

The risks indicated below are those that will be prevailing in the long-term due to the length of time it will take to mitigate those risks.

OUTCOMES	KEY RISK	RISK MITIGATION
<ul style="list-style-type: none"> • Energy supply that is certain and secure for current and future user needs through the orderly development and operation of the electricity supply infrastructure • Regulatory certainty within the electricity industry • Efficient, sustainable and orderly development of the piped-gas industry aimed at security of supply • Regulatory certainty within the piped-gas industry • Efficient, sustainable and orderly development of a transformed petroleum pipelines industry aimed at security of supply 	<ul style="list-style-type: none"> • Regulatory uncertainty 	<ul style="list-style-type: none"> • Advocacy with the Department of Mineral Resources and Energy (DMRE) to - <ul style="list-style-type: none"> o strengthen NERSA's regulatory powers and improve the regulatory framework provided through the regulatory acts and applicable regulations; o to assist in addressing overlapping regulatory mandates; and o issue all required prescriptions provided for in the relevant legislation to ensure effective regulation
<ul style="list-style-type: none"> • A regulatory environment that facilitates investment in electricity infrastructure • A regulatory environment that facilitates investment in piped-gas infrastructure • A regulatory environment that provides regulatory certainty facilitates investment in petroleum pipeline infrastructure 	<ul style="list-style-type: none"> • Monopolistic environment 	<ul style="list-style-type: none"> • Advocacy with DMRE – <ul style="list-style-type: none"> o for exemption provisions in the Petroleum legislation; o to strengthen NERSA's regulatory powers by amending the Gas and Electricity Acts
<ul style="list-style-type: none"> • A competitive piped-gas industry • A competitive petroleum pipelines industry 	<ul style="list-style-type: none"> • High barriers to entry 	<ul style="list-style-type: none"> • Advocacy with DMRE and other regulatory bodies to develop a coordinated policy to incentivise investment • Advocacy with DMRE – <ul style="list-style-type: none"> o for primary energy source diversification (IRP) o on validity of construction licences o to strengthen NERSA's regulatory powers by amending the Gas and Electricity Acts
<ul style="list-style-type: none"> • Accessible and affordable electricity for all citizens • Access to competitive gas prices and gas services • A competitive petroleum pipelines industry 	<ul style="list-style-type: none"> • Rising energy tariffs 	<ul style="list-style-type: none"> • Advocacy with DMRE for transition to open electricity market

PART D: TECHNICAL INDICATOR DESCRIPTIONS

The technical indicator descriptions (TID) below is a description of the outcome indicators stated in this Plan, which defines the data collection processes and gathering of portfolios of evidence.

These indicators are divided in the following functional areas:

- Electricity Industry Regulation
- Piped-Gas Industry Regulation;
- Petroleum Pipelines Industry Regulation;
- Transversal Regulatory; and
- Organisational.

1. ELECTRICITY INDUSTRY REGULATION

Indicator title	Energy Regulator decision on the review of Eskom's revenue application for year 1 of MYPD 5 within the stated timeframe of receiving all the required information for the application	Percentage of complete tariff applications of licensed distributors considered by the relevant committee or the Energy Regulator within the stated timeframe
Definition	This is the decision of the Energy Regulator on review of Eskom's revenue application, based on the Multi Year Price Determination (MYPD) – which incorporates some of the Rate of Return (RoR) and incentive based principles through the introduction of the transmission and distribution service incentive schemes and the energy efficiency demand side management (EEDSM) schemes.	This is the percentage of complete tariff applications from licensed distributors for increases within the guideline and benchmark that are considered within a specified timeframe.
Source of data	Eskom's revenue application; Information supplied by Eskom	Tariff Applications and D Forms; Tariff analysis schedules
Method of calculation / assessment	Decision of the Energy Regulator	$((\text{number of tariff applications approved within 60 days of receipt of complete application}) / (\text{number of received tariff applications})) * 100$
Assumptions	Eskom submits complete application	Complete applications received from licensees
Disaggregation of Beneficiaries (where applicable)	<ul style="list-style-type: none"> • Target for women: N/A • Target for youth: N/A • Target for people with disabilities: N/A 	<ul style="list-style-type: none"> • Target for women: N/A • Target for youth: N/A • Target for people with disabilities: N/A



Indicator title	Energy Regulator decision on the review of Eskom's revenue application for year 1 of MYPD 5 within the stated timeframe of receiving all the required information for the application	Percentage of complete tariff applications of licensed distributors considered by the relevant committee or the Energy Regulator within the stated timeframe
Spatial transformation (where applicable)	<ul style="list-style-type: none"> Contribution to spatial transformation priorities: N/A Description of Spatial Impact: N/A 	<ul style="list-style-type: none"> Contribution to spatial transformation priorities: N/A Description of Spatial Impact: N/A
Desired Performance	Energy Regulator decision on the review of Eskom's revenue application for year 1 of MYPD 5 considered by the ER within 6 months after receipt of complete application	100% of complete tariff applications of licensed distributors were considered by the REC/ELS within 60 working days of receipt of complete application
Indicator Responsibility	EM (ELR) and HOD (EPT)	EM (ELR) and HOD (EPT)

Indicator title	Percentage of complete applications for a licence or registration of electricity generation activities are considered by the relevant committee or the Energy Regulator within the stated timeframe of receiving all the required information for the application	
Definition	This is the percentage of complete licence applications that are considered in compliance within the legislated timeframes.	This is the percentage of complete applications for registration of electricity generation activities that are considered within the legislated timeframes.
Source of data	Licence application	(number of processed licence applications within 60 days / number of received licence applications)* 100
Method of calculation / assessment	(number of processed licence applications within 120 days / number of received licence applications)* 100	((number of tariff applications approved within 60 days of receipt of complete application) / (number of received tariff applications))* 100
Assumptions	Applicants provide all required information to accept application for analysis	All required information is received from applicants
Disaggregation of Beneficiaries (where applicable)	<ul style="list-style-type: none"> Target for women: N/A Target for youth: N/A Target for people with disabilities: N/A 	<ul style="list-style-type: none"> Target for women: N/A Target for youth: N/A Target for people with disabilities: N/A
Spatial transformation (where applicable)	<ul style="list-style-type: none"> Contribution to spatial transformation priorities: N/A Description of Spatial Impact: N/A 	<ul style="list-style-type: none"> Contribution to spatial transformation priorities: N/A Description of Spatial Impact: N/A
Desired Performance	100% of complete licence applications are considered by the Energy Regulator within 120 working days of receiving all the required information for the application	100% of complete applications for the registration of electricity generation activities are considered by the ELS within 120 working days of receiving all the required information for the application
Indicator Responsibility	EM (ELR) and HOD (ELC)	EM (ELR) and HOD (ELC)

Indicator title	Number of audit reports on the state of compliance with licence conditions considered by the relevant committee or the Energy Regulator within the stated timeframe
Definition	These are annual reports on all the audits NERSA conducted on the state of distribution, generation and transmission licensees' compliance with licence conditions, including audit findings.
Source of data	Compliance audit reports
Method of calculation / assessment	Number of reports per year
Assumptions	Audits completed as planned
Disaggregation of Beneficiaries (where applicable)	<ul style="list-style-type: none"> Target for women: N/A Target for youth: N/A Target for people with disabilities: N/A
Spatial transformation (where applicable)	<ul style="list-style-type: none"> Contribution to spatial transformation priorities: N/A Description of Spatial Impact: N/A
Desired Performance	3 audit reports - one each for distribution, generation and transmission licensees - on the state of compliance of licensees with licence conditions considered annually by the REC/ELS by 31 March
Indicator Responsibility	EM (ELR) and HOD (ELC)

Indicator title	Number of reports on the System Adequacy considered by the relevant committee or the Energy Regulator within the stated timeframe	Number of reports on the performance of renewable technologies considered by the relevant committee or the Energy Regulator within the stated timeframe
Definition	These are annual reports in which NERSA indicates the adequacy and performance of the generation system, as well as a capacity outlook for the near future.	These are annual reports on the performance of renewable technologies aimed at informing all stakeholders and decision makers on the status.
Source of data	Reports from Eskom	Reports on the performance and progress of Renewable Energy
Method of calculation / assessment	Number of reports per year	Number of reports per year
Assumptions	Information from Eskom received timeously	Analysis completed



Indicator title	Number of reports on the System Adequacy considered by the relevant committee or the Energy Regulator within the stated timeframe	Number of reports on the performance of renewable technologies considered by the relevant committee or the Energy Regulator within the stated timeframe
Disaggregation of Beneficiaries (where applicable)	<ul style="list-style-type: none"> Target for women: N/A Target for youth: N/A Target for people with disabilities: N/A 	<ul style="list-style-type: none"> Target for women: N/A Target for youth: N/A Target for people with disabilities: N/A
Spatial transformation (where applicable)	<ul style="list-style-type: none"> Contribution to spatial transformation priorities: N/A Description of Spatial Impact: N/A 	<ul style="list-style-type: none"> Contribution to spatial transformation priorities: N/A Description of Spatial Impact: N/A
Desired Performance	1 System Adequacy Report considered annually by the REC/ELS by 31 March	2 monitoring reports on the performance and progress of Renewable Energy projects for 2020/21 considered annually by the REC/ELS by 30 September and 31 March respectively
Indicator Responsibility	EM (ELR)	EM (ELR) and HOD (ELC)

Indicator title	Number of reports on the analysis of Eskom's actual performance against the regulatory framework considered by the relevant committee or the Energy Regulator within the stated timeframe	Number of reports on new entrants into the electricity supply industry considered by the relevant committee or the Energy Regulator within the stated timeframe
Definition	These are annual reports on the analysis of Eskom's actual performance against the regulatory framework in order to determine the level of compliance.	These are annual reports on the performance of renewable technologies aimed at informing all stakeholders and decision makers on the status.
Source of data	Reports from Eskom; compliance audit reports	Reports on the performance and progress of Renewable Energy
Method of calculation / assessment	Number of reports	Number of reports
Assumptions	Analysis completed	Analysis completed
Disaggregation of Beneficiaries (where applicable)	<ul style="list-style-type: none"> Target for women: N/A Target for youth: N/A Target for people with disabilities: N/A 	<ul style="list-style-type: none"> Target for women: N/A Target for youth: N/A Target for people with disabilities: N/A
Spatial transformation (where applicable)	<ul style="list-style-type: none"> Contribution to spatial transformation priorities: N/A Description of Spatial Impact: N/A 	<ul style="list-style-type: none"> Contribution to spatial transformation priorities: N/A Description of Spatial Impact: N/A
Desired Performance	1 report on the outcome of the Eskom's actual performance against the regulatory framework considered annually by the REC/ELS by 31 March	1 report on the assessment of new entrants into the electricity supply industry considered annually by the REC/ELS by 31 March
Indicator Responsibility	EM (ELR) and HOD (EIP)	EM (ELR) and HOD (ELC)

Indicator title	Number of reports on refurbishments and upgrades of electricity infrastructure considered by the relevant committee or the Energy Regulator within the stated timeframe	Approved revenues and tariffs to facilitate the sustainability of electricity supply considered by the relevant committee or the Energy Regulator within the stated timeframe after receipt of the complete application
Definition	These are annual reports on the analysis of refurbishments and upgrades of electricity infrastructure by licensees – in order to monitor the level of security of electricity supply.	To ensure that Eskom's revenue requirements for the next Multi-Year Price Determination period is approved annually to allow Eskom enough revenue to be a going concern but also to protect the consumers against inflated prices.
Source of data	Reports from Eskom; compliance audit reports	Applications from Eskom
Method of calculation / assessment	Number of reports	Application of tariff model
Assumptions	Analysis completed	Eskom submits complete application
Disaggregation of Beneficiaries (where applicable)	<ul style="list-style-type: none"> • Target for women: N/A • Target for youth: N/A • Target for people with disabilities: N/A 	<ul style="list-style-type: none"> • Target for women: N/A • Target for youth: N/A • Target for people with disabilities: N/A
Spatial transformation (where applicable)	<ul style="list-style-type: none"> • Contribution to spatial transformation priorities: N/A • Description of Spatial Impact: N/A 	Audits completed as planned
Desired Performance	1 report on refurbishments and upgrades of electricity infrastructure considered annually by the ELS/REC by 31 March	Energy Regulator decision on the review of Eskom's submission on ERTSA for the coming financial year considered by the by the ELS/REC within 6 months after receipt of complete application
Indicator Responsibility	EM (ELR) and HOD (EIP)	EM (ELR) and HOD (EPT)



Indicator title	Percentage of applications from the ESI requiring amendment to or exemption from the South African grid code, considered by the relevant committee or the Energy Regulator stated timeframe from receipt of complete information	Number of reports on regulatory advocacy aimed at improvement of the regulatory framework provided through legislation, regulation and government policies considered by the relevant committee or the Energy Regulator within the stated timeframe
Definition	This is the percentage of applications for amendment of or exemption from the Grid Code considered within specified timeframe	These are annual reports on regulatory advocacy engagements with decision-makers on identified legislative and policy matters.
Source of data	Applications for amendment of or exemption from the grid code	Reports on each engagement indicating the reason for and outcome of the engagement
Method of calculation / assessment	(number of applications requiring amendments or exemptions completed within 60 days / number of applications for exemptions received)*100	Number of reports
Assumptions	Recommendations from Grid Code Advisory Committee submitted with all required supporting documents	Reports on each engagement compiled
Disaggregation of Beneficiaries (where applicable)	<ul style="list-style-type: none"> • Target for women: N/A • Target for youth: N/A • Target for people with disabilities: N/A 	<ul style="list-style-type: none"> • Target for women: N/A • Target for youth: N/A • Target for people with disabilities: N/A
Spatial transformation (where applicable)	<ul style="list-style-type: none"> • Contribution to spatial transformation priorities: N/A • Description of Spatial Impact: N/A 	Audits completed as planned
Desired Performance	100% of applications from the ESI requiring amendment to or exemption from the distribution and transmission grid code, considered by the REC/ELS within 60 days from receipt of complete information	1 report on regulatory advocacy aimed at improvement of the regulatory framework provided through legislation, regulation and government policies considered annually by the REC/ELS by 31 March
Indicator Responsibility	EM (ELR) and HOD (EIP)	EM (ELR) and HOD (ELC)

2. PIPED-GAS INDUSTRY REGULATION

Indicator title	Percentage of complete maximum price applications considered by the relevant committee or the Energy Regulator within the stated timeframe after date of publication of preliminary assessment of the maximum price applications	Percentage of complete tariff applications considered by the relevant committee or the Energy Regulator within the stated timeframe after the date of the publication of preliminary assessment of the applications
Definition	This is the percentage of complete applications for maximum prices of piped-gas considered within a set timeframe, subject to a finding that there is inadequate competition.	This is the percentage of complete tariff applications considered within a set timeframe, subject to a finding that there is inadequate competition.
Source of data	Applications for maximum prices of gas	Applications for tariffs
Method of calculation / assessment	(number of applications for maximum prices completed within 120 days / number of applications for maximum prices received)*100	(number of tariff applications completed within 120 days / number of applications for tariff applications received)*100
Assumptions	Complete applications received from licensees	Complete applications received from licensees
Disaggregation of Beneficiaries (where applicable)	<ul style="list-style-type: none"> • Target for women: N/A • Target for youth: N/A • Target for people with disabilities: N/A 	<ul style="list-style-type: none"> • Target for women: N/A • Target for youth: N/A • Target for people with disabilities: N/A
Spatial transformation (where applicable)	<ul style="list-style-type: none"> • Contribution to spatial transformation priorities: N/A • Description of Spatial Impact: N/A 	<ul style="list-style-type: none"> • Contribution to spatial transformation priorities: N/A • Description of Spatial Impact: N/A
Desired Performance	100% of complete maximum price applications considered by the Energy Regulator within 120 working days after date of publication of preliminary assessment of the maximum price applications	100% of complete tariff applications considered by Energy Regulator within 120 working day after the date of the publication of preliminary assessment of the applications
Indicator Responsibility	EM (GAR) and HOD (GPT)	EM (GAR) and HOD (GPT)



Indicator title	Percentage of complete trading margin applications considered by the relevant committee or the Energy Regulator within the stated timeframe after the date of the publication of preliminary assessment of the applications	Number of reports on the review of the definition of the piped-gas market considered by the relevant committee or the Energy Regulator within the stated timeframe
Definition	This is the percentage of trading margin applications considered within a set timeframe, aimed at enabling the licensee to: a) Recover all efficient and prudently incurred investment and operational costs, and b) Make a profit commensurate with risk.	These are annual reports on the review of the definition of the piped-gas market.
Source of data	Applications for trading margin	GIS reports; data base of licensees
Method of calculation / assessment	(number of trading margin applications completed within 120 days / number of applications for maximum prices received)*100	Number of reports
Assumptions	Complete applications received from licensees	Analysis completed
Disaggregation of Beneficiaries (where applicable)	<ul style="list-style-type: none"> • Target for women: N/A • Target for youth: N/A • Target for people with disabilities: N/A 	<ul style="list-style-type: none"> • Target for women: N/A • Target for youth: N/A • Target for people with disabilities: N/A
Spatial transformation (where applicable)	<ul style="list-style-type: none"> • Contribution to spatial transformation priorities: N/A • Description of Spatial Impact: N/A 	<ul style="list-style-type: none"> • Contribution to spatial transformation priorities: N/A • Description of Spatial Impact: N/A
Desired Performance	100% of complete trading margin applications considered by the Energy Regulator within 120 working days after the date of the publication of preliminary assessment of the applications	1 report on the review of the definition of the piped-gas market considered annually by the relevant committee of the PGS by 31 March
Indicator Responsibility	EM (GAR) and HOD (GPT)	EM (GAR) and HOD (GPT)

Indicator title	Percentage of complete licence applications considered by the relevant committee or the Energy Regulator within the stated timeframe from date of close of public comment period or period of applicant's response to objections received	Percentage of complete registration applications of gas activities considered by the relevant committee or the Energy Regulator within the stated timeframe
Definition	This is the percentage of complete licence applications considered within a set timeframe and conditions.	This is the percentage of the registration applications for operations or activities related to the production and importation of gas, considered within a set timeframe and conditions.
Source of data	Licence applications	Registration applications
Method of calculation / assessment	(Number of licence applications considered within 60 days after the end of the objection period or period of applicant's response to objections received) / (total number of applications received) * 100	(Number of registration applications considered within 120 days from receipt of complete application) / (total number of applications received) * 100
Assumptions	Complete applications submitted	Complete applications submitted
Disaggregation of Beneficiaries (where applicable)	<ul style="list-style-type: none"> • Target for women: N/A • Target for youth: N/A • Target for people with disabilities: N/A 	<ul style="list-style-type: none"> • Target for women: N/A • Target for youth: N/A • Target for people with disabilities: N/A
Spatial transformation (where applicable)	<ul style="list-style-type: none"> • Contribution to spatial transformation priorities: N/A • Description of Spatial Impact: N/A 	<ul style="list-style-type: none"> • Contribution to spatial transformation priorities: N/A • Description of Spatial Impact: N/A
Desired Performance	100% of complete licence applications considered by the REC or PGS (depending on the delegation) within 60 working days from date of close of public comment period or period of applicant's response to objections received	100% of complete registration applications of gas activities considered by the PGS within 60 working days from date of close of public comment period
Indicator Responsibility	EM (GAR) and HOD (GLC)	EM (GAR) and HOD (GLC)



Indicator title	Number of audits conducted on the ROMPCO pipeline according to the compliance frameworks and audit reports considered by the relevant committee or the Energy Regulator within the stated timeframe	Number of monthly volume balance reports assessed and analysis reports considered by the relevant committee or the Energy Regulator to monitor the supply of 120m GJ p.a. from Mozambique to South Africa within the stated timeframe
Definition	These are annual audits conducted on the ROMPCO pipeline according to the compliance framework, non-compliance notices issued (where necessary) and audit reports compiled.	These are reports on the assessment and analysis of Sasol's monthly volume balance reports considered within a stated timeframe, in order for NERSA to have regular, systematic, consistent, and sufficient non-financial information relevant to economic regulation, to enhance the efficiency and transparency of the regulatory process.
Source of data	Audit reports	Volume balance report assessment reports from Sasol
Method of calculation / assessment	Number of audits	Number of reports
Assumptions	Approved received to travel to Mozambique to conduct audit	Information received timeously from Sasol
Disaggregation of Beneficiaries (where applicable)	<ul style="list-style-type: none"> • Target for women: N/A • Target for youth: N/A • Target for people with disabilities: N/A 	<ul style="list-style-type: none"> • Target for women: N/A • Target for youth: N/A • Target for people with disabilities: N/A
Spatial transformation (where applicable)	<ul style="list-style-type: none"> • Contribution to spatial transformation priorities: N/A • Description of Spatial Impact: N/A 	<ul style="list-style-type: none"> • Contribution to spatial transformation priorities: N/A • Description of Spatial Impact: N/A
Desired Performance	1 audit conducted annually on the ROMPCO pipeline according to the compliance frameworks and audit reports considered by the PGS by 31 March	12 monthly volume balance reports assessed and analysis reports considered by the PGS to monitor the supply of 120m GJ p.a. from Mozambique to South Africa
Indicator Responsibility	EM (GAR) and HOD (GLC)	EM (GAR) and HOD (GLC)

Indicator title	Number of inspections conducted, non-compliance notices issued (where necessary) and quarterly inspection reports considered by the relevant committee or the Energy Regulator within the stated timeframe	Number of reports on the assessment of criteria for the allocation of uncommitted capacity considered annually by the relevant committee or the Energy Regulator within the stated timeframe
Definition	These are planned inspections conducted during the reporting year, aimed at enforcing monitoring and compliance of licensed entities with licence conditions. Notices of non-compliance are issued when necessary, and quarterly inspection reports compiled.	These are annual reports on the construction, operation and trading licenses issued per annum to provide information on the growth of piped-gas industry.
Source of data	Approved plan to annual inspections, Inspection reports	Database on construction, operation and trading licenses issued per annum
Method of calculation / assessment	Number of inspections	Number of reports
Assumptions	Inspections completed	Number of reports
Disaggregation of Beneficiaries (where applicable)	<ul style="list-style-type: none"> Target for women: N/A Target for youth: N/A Target for people with disabilities: N/A 	<ul style="list-style-type: none"> Target for women: N/A Target for youth: N/A Target for people with disabilities: N/A
Spatial transformation (where applicable)	<ul style="list-style-type: none"> Contribution to spatial transformation priorities: N/A Description of Spatial Impact: N/A 	<ul style="list-style-type: none"> Contribution to spatial transformation priorities: N/A Description of Spatial Impact: N/A
Desired Performance	Inspections conducted (as per the annual plan for inspections), non-compliance notices issued (where necessary) and quarterly inspection reports considered by the PGS	1 report on the assessment of criteria for the allocation of uncommitted capacity considered annually by the relevant committee or the Energy Regulator by 31 March
Indicator Responsibility	EM (GAR) and HOD (GLC)	EM (GAR) and HOD (GLC)

Indicator title	Number of reports on the implementation of the reviewed mechanism for enforcement of the 3rd party access considered by the relevant committee or the Energy Regulator within the stated timeframe
Definition	This is a report on the implementation of the reviewed mechanism for enforcement of 3rd party access
Source of data	Reports from licensees; compliance reports
Method of calculation / assessment	Number of reports
Assumptions	Completed reports received



Indicator title	Number of reports on the implementation of the reviewed mechanism for enforcement of the 3rd party access considered by the relevant committee or the Energy Regulator within the stated timeframe
Disaggregation of Beneficiaries (where applicable)	<ul style="list-style-type: none"> • Target for women: N/A • Target for youth: N/A • Target for people with disabilities: N/A
Spatial transformation (where applicable)	<ul style="list-style-type: none"> • Contribution to spatial transformation priorities: N/A • Description of Spatial Impact: N/A
Desired Performance	1 report on the implementation of the reviewed mechanism for enforcement of 3rd party access considered annually by the PGS by 31 March
Indicator Responsibility	EM (GAR) and HOD (GLC)

Indicator title	Number of reports on the engagements on harmonised requirements/ processes for regulation of cross border assets between SA and Mozambique considered by the relevant committee or the Energy Regulator within the stated timeframe	Number of reports on the assessment of adequacy of competition in the piped-gas industry considered by the relevant committee or the Energy Regulator within the stated timeframe
Definition	This is a report on continued engagements with the Mozambique regulator to facilitate harmonization of regulatory frameworks and policies required for the effective regulation of cross border assets between SA and Mozambique considered by 31 March 2025.	This is a report on the assessment conducted to determine the adequacy of competition in the piped-gas industry – which is an important component for tariff and pricing methodologies considered by 31 March 2025.
Source of data	Existing regulatory frameworks, MOUs	Research reports; analysis report
Method of calculation / assessment	Number of reports	Number of reports
Assumptions	Engagements completed	Research and analysis completed
Disaggregation of Beneficiaries (where applicable)	<ul style="list-style-type: none"> • Target for women: N/A • Target for youth: N/A • Target for people with disabilities: N/A 	<ul style="list-style-type: none"> • Target for women: N/A • Target for youth: N/A • Target for people with disabilities: N/A
Spatial transformation (where applicable)	<ul style="list-style-type: none"> • Contribution to spatial transformation priorities: N/A • Description of Spatial Impact: N/A 	<ul style="list-style-type: none"> • Contribution to spatial transformation priorities: N/A • Description of Spatial Impact: N/A
Desired Performance	1 report on the engagements on harmonised requirements/ processes for regulation of cross border assets between SA and Mozambique considered by the PGS by 31 March 2025	1 report on the assessment of adequacy of competition in the piped-gas industry considered by the Energy Regulator by 31 March 2025
Indicator Responsibility	EM (GAR)	EM (GAR) and HOC (GCM)

Indicator title	Number of reports on regulatory mechanisms required for the review of licensing rules considered by the relevant committee or the Energy Regulator within the stated timeframe
Definition	This is a report on regulatory mechanisms required for on the review of licensing rules for the piped-gas industry considered by 31 March 2022.
Source of data	Reports on each engagement indicating the reason for and outcome of the engagement
Method of calculation / assessment	Number of reports
Assumptions	Reports on each engagement compiled
Disaggregation of Beneficiaries (where applicable)	<ul style="list-style-type: none"> Target for women: N/A Target for youth: N/A Target for people with disabilities: N/A
Spatial transformation (where applicable)	<ul style="list-style-type: none"> Contribution to spatial transformation priorities: N/A Description of Spatial Impact: N/A
Desired Performance	1 report on regulatory regulatory mechanisms required for the review of licensing rules considered by the relevant committee or the Energy Regulator by 31 March 2022
Indicator Responsibility	EM (GAR) and HOD (GLC)

Indicator title	Revised price and tariff methodology considered by the relevant committee or the Energy Regulator within the stated timeframe	Refined framework for conducting adequacy of competition in the gas industry considered by the relevant committee or the Energy Regulator within the stated timeframe
Definition	The price and tariff methodology for the piped-gas industry will be reviewed to ensure to ensure correct decision-making in respect of price and tariff applications and considered by 31 March 2025.	The framework for conducting adequacy of competition in the piped-gas industry will be reviewed to guide the process to determine adequacy of competition in the piped-gas industry considered by 31 March 2021.
Source of data	Revised price and tariff methodology	Revised framework for conducting adequacy of competition
Method of calculation / assessment	Approved revised price and tariff methodology	Approved revised framework for conducting adequacy of competition
Assumptions	Analysis completed	Participation by key stakeholders



Indicator title	Revised price and tariff methodology considered by the relevant committee or the Energy Regulator within the stated timeframe	Refined framework for conducting adequacy of competition in the gas industry considered by the relevant committee or the Energy Regulator within the stated timeframe
Disaggregation of Beneficiaries (where applicable)	<ul style="list-style-type: none"> Target for women: N/A Target for youth: N/A Target for people with disabilities: N/A 	<ul style="list-style-type: none"> Target for women: N/A Target for youth: N/A Target for people with disabilities: N/A
Spatial transformation (where applicable)	<ul style="list-style-type: none"> Contribution to spatial transformation priorities: N/A Description of Spatial Impact: N/A 	<ul style="list-style-type: none"> Contribution to spatial transformation priorities: N/A Description of Spatial Impact: N/A
Desired Performance	Revised piped-gas price and tariff methodology is approved by the Energy Regulator by 31 March 2025	Refined framework for conducting adequacy of competition in the piped-gas industry is approved by the Energy Regulator by 31 March 2021
Indicator Responsibility	EM (GAR) and HOD (GPT)	EM (GAR) and HOD (GCM)

Indicator title	Number of reports on regulatory advocacy aimed at improvement of the regulatory framework provided through legislation, regulation and government policies considered by the relevant committee or the Energy Regulator within the stated timeframe
Definition	These are annual reports on gas regulatory advocacy engagements with decision-makers on identified legislative and policy matters considered by 31 March annually.
Source of data	Reports on each engagement indicating the reason for and outcome of the engagement
Method of calculation / assessment	Number of reports considered per annum
Assumptions	Reports on each engagement compiled
Disaggregation of Beneficiaries (where applicable)	<ul style="list-style-type: none"> Target for women: N/A Target for youth: N/A Target for people with disabilities: N/A
Spatial transformation (where applicable)	<ul style="list-style-type: none"> Contribution to spatial transformation priorities: N/A Description of Spatial Impact: N/A
Desired Performance	1 report on gas regulatory advocacy aimed at improvement of the regulatory framework provided through legislation, regulation and government policies considered annually by the PGS by 31 March
Indicator Responsibility	EM (GAR), HOD (GLC) and HOD (GPT)

3. PETROLEUM PIPELINES INDUSTRY REGULATION

Indicator title	Number of reports on the percentage utilisation for pipelines, storage facilities and loading facilities and third party access considered by the relevant committee or the Energy Regulator within the stated timeframe	Percentage of complete pipeline, storage and loading facility tariff applications considered by the relevant committee or the Energy Regulator within the stated timeframe from receipt of complete application
Definition	These are annual reports on the percentage utilisation for pipelines, storage facilities and loading facilities and third party access aimed at promoting competition in the industry, considered annually by the PPS by 31 March.	This is the percentage of all complete pipeline, storage and loading facility tariff applications considered by the PPS/ER (depending on the delegation) within 8 months of receipt of complete application
Source of data	Analysis reports	Applications for tariffs
Method of calculation / assessment	Number of reports	$((\text{Number of tariff applications considered by the relevant Subcommittee within 8 months of receipt of complete application}) / (\text{Total number of tariff applications received})) * 100$
Assumptions	Analysis of trends completed	Complete applications received
Disaggregation of Beneficiaries (where applicable)	<ul style="list-style-type: none"> • Target for women: N/A • Target for youth: N/A • Target for people with disabilities: N/A 	<ul style="list-style-type: none"> • Target for women: N/A • Target for youth: N/A • Target for people with disabilities: N/A
Spatial transformation (where applicable)	<ul style="list-style-type: none"> • Contribution to spatial transformation priorities: N/A • Description of Spatial Impact: N/A 	<ul style="list-style-type: none"> • Contribution to spatial transformation priorities: N/A • Description of Spatial Impact: N/A
Desired Performance	1 report on the percentage utilisation for pipelines, storage facilities and loading facilities and third party access considered annually by PPS by 31 March	100% complete pipeline, storage and loading facility tariff applications considered by the considered by the PPS/ER within 6 months from receipt of complete application
Indicator Responsibility	EM (PPR) and HOD (PLC)	EM (PPR) and HOD (PPT)



Indicator title	Percentage of complete licence applications considered by the relevant committee or the Energy Regulator within the stated timeframe under the conditions as prescribed in Section 19(1) of the Petroleum Pipelines Act	Percentage of complete applications for licence amendments / revocations considered by the relevant committee or the Energy Regulator within the stated timeframe under the conditions as prescribed in Sections 23 or 24 of the Petroleum Pipelines Act
Definition	This is the percentage of complete licence applications that will be decided upon by the PPS/REC/ER (depending on the delegation) within the timelines as prescribed in Section 19(1) of the Petroleum Pipelines Act	This is the percentage of complete applications for licence amendments that will be decided upon by the by the PPS/REC/ER (depending on the delegation)within the timelines as prescribed in Section 19(1) of the Petroleum Pipelines Act
Source of data	Licence applications	Licence amendment applications
Method of calculation / assessment	(number of applications decided upon within statutory deadlines / number of received licence applications)*100	(number of applications decided upon within statutory deadlines / number of received licence applications)*100
Assumptions	Complete applications	Complete applications
Disaggregation of Beneficiaries (where applicable)	<ul style="list-style-type: none"> • Target for women: N/A • Target for youth: N/A • Target for people with disabilities: N/A 	<ul style="list-style-type: none"> • Target for women: N/A • Target for youth: N/A • Target for people with disabilities: N/A
Spatial transformation (where applicable)	<ul style="list-style-type: none"> • Contribution to spatial transformation priorities: N/A • Description of Spatial Impact: N/A 	<ul style="list-style-type: none"> • Contribution to spatial transformation priorities: N/A • Description of Spatial Impact: N/A
Desired Performance	100% of complete licence applications considered by the PPS/REC/ER (depending on the delegation) within 60 working days under the conditions as prescribed in Section 19(1) of the Petroleum Pipelines Act	100% of percentage of complete applications for licence amendments that will be decided upon by the by the PPS/REC/ER (depending on the delegation)within the timelines as prescribed in Section 19(1) of the Petroleum Pipelines Act
Indicator Responsibility	EM (PPR) and HOD (PLC)	EM (PPR) and HOD (PLC)

Indicator title	Reviewed tariff methodology for storage and loading facilities considered by the relevant committee or the Energy Regulator within the stated timeframe	Number of reports on regulatory advocacy aimed at improvement of the regulatory framework provided through legislation, regulation and government policies for the petroleum pipelines industry considered by the relevant committee or the Energy Regulator within the stated timeframe
Definition	The tariff methodology for storage and loading facilities to provide regulatory certainty and facilitate investment in the petroleum pipelines industry considered by the Energy Regulator by 31 March 2025	These are annual reports on regulatory advocacy aimed at the improvement of the regulatory framework provided through legislation, regulation and government policies for the petroleum pipelines industry considered annually by the PPS by 31 March
Source of data	Reviewed tariff methodology for storage and loading facilities	Reports on each engagement indicating the reason for and outcome of the engagement
Method of calculation / assessment	Reviewed tariff methodology for storage and loading facilities	Number of reports
Assumptions	Participation by key stakeholders	Reports on each engagement compiled
Disaggregation of Beneficiaries (where applicable)	<ul style="list-style-type: none"> Target for women: N/A Target for youth: N/A Target for people with disabilities: N/A 	<ul style="list-style-type: none"> Target for women: N/A Target for youth: N/A Target for people with disabilities: N/A
Spatial transformation (where applicable)	<ul style="list-style-type: none"> Contribution to spatial transformation priorities: N/A Description of Spatial Impact: N/A 	<ul style="list-style-type: none"> Contribution to spatial transformation priorities: N/A Description of Spatial Impact: N/A
Desired Performance	The reviewed tariff methodology for storage and loading facilities approved by the Energy Regulator by 31 March 2025	1 report on regulatory advocacy aimed at the improvement of the regulatory framework provided through legislation, regulation and government policies for the petroleum pipelines industry considered annually by the PPS by 31 March
Indicator Responsibility	EM (PPR) and HOD (PPT)	EM (PPR), HOD (PLC) and HOD (PPT)

Indicator title	Number of reports on new entrants into the petroleum pipelines industry considered by the relevant committee or the Energy Regulator within the stated timeframe	Number of reports on the geographic spread of petroleum pipelines infrastructure considered by the relevant committee or the Energy Regulator within the stated timeframe
Definition	These are annual reports on new entrants into the petroleum pipelines industry in order to determine the growth of the industry, considered by the PPS by 31 March annually	These are annual reports indicating the geographic spread of petroleum pipelines infrastructure in order to provide information on the level of access to petroleum pipelines services across South Africa, considered by the PPS by 31 March annually
Source of data	License and registration applications	GIS reports; data base of licensees



Indicator title	Number of reports on new entrants into the petroleum pipelines industry considered by the relevant committee or the Energy Regulator within the stated timeframe	Number of reports on the geographic spread of petroleum pipelines infrastructure considered by the relevant committee or the Energy Regulator within the stated timeframe
Method of calculation / assessment	Number of reports	Number of reports
Assumptions	Analysis completed	Analysis completed
Disaggregation of Beneficiaries (where applicable)	<ul style="list-style-type: none"> • Target for women: N/A • Target for youth: N/A • Target for people with disabilities: N/A 	<ul style="list-style-type: none"> • Target for women: N/A • Target for youth: N/A • Target for people with disabilities: N/A
Spatial transformation (where applicable)	<ul style="list-style-type: none"> • Contribution to spatial transformation priorities: N/A • Description of Spatial Impact: N/A 	<ul style="list-style-type: none"> • Contribution to spatial transformation priorities: N/A • Description of Spatial Impact: N/A
Desired Performance	1 report on new entrants into the petroleum pipelines industry considered annually by the PPS by 31 March	1 report on the geographic spread of petroleum pipelines infrastructure considered annually by the PPS
Indicator Responsibility	EM (PPR) and HOD (PLC)	EM (PPR) and HOD (PLC)

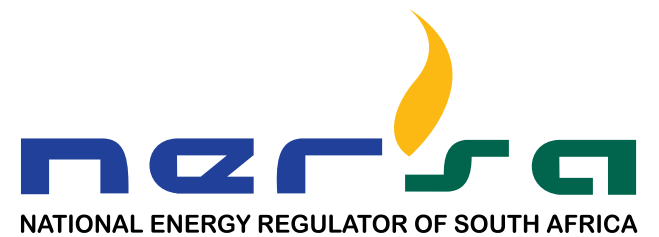
Indicator title	Number of reports on the pipelines, storage and loading licenses issued considered by the relevant committee or the Energy Regulator within the stated timeframe
Definition	These are annual reports on the pipelines, storage and loading licenses issued in a particular financial year, considered annually by the PPS by 31 March
Source of data	Data base of licence applications
Method of calculation / assessment	Number of reports
Assumptions	Analysis completed
Disaggregation of Beneficiaries (where applicable)	<ul style="list-style-type: none"> • Target for women: N/A • Target for youth: N/A • Target for people with disabilities: N/A
Spatial transformation (where applicable)	<ul style="list-style-type: none"> • Contribution to spatial transformation priorities: N/A • Description of Spatial Impact: N/A
Desired Performance	1 report on the pipelines, storage and loading licenses issued considered annually by the PPS by 31 March
Indicator Responsibility	EM (PPR) and HOD (PLC)

4. TRANSVERSAL REGULATORY AND ORGANISATIONAL

Indicator title	Percentage of business processes are automated and efficient within the stated timeframe	Percentage of regulatory processes is based on appropriate Research within the staed timeframe
Definition	Business processes and internal control measures are digitized to improve efficacy	All processes applied for the regulation of the energy sector is based on relevant research
Source of data	Business process analysis	Research reports
Method of calculation / assessment	IT design	Approved regulatory processes
Assumptions	Business process analysis complete	Research completed
Disaggregation of Beneficiaries (where applicable)	<ul style="list-style-type: none"> • Target for women: N/A • Target for youth: N/A • Target for people with disabilities: N/A 	<ul style="list-style-type: none"> • Target for women: N/A • Target for youth: N/A • Target for people with disabilities: N/A
Spatial transformation (where applicable)	<ul style="list-style-type: none"> • Contribution to spatial transformation priorities: N/A • Description of Spatial Impact: N/A 	<ul style="list-style-type: none"> • Contribution to spatial transformation priorities: N/A • Description of Spatial Impact: N/A
Desired Performance	70% of processes are automated and efficient by 31 March 2025	100% of regulatory processes is based on appropriate research by 31 March 2015
Indicator Responsibility	CIO	SM (RAR)



Indicator title	Number of reports on partnership creation to position NERSA as a recognised regulator nationally, regionally and internationally considered by the relevant committee or the Energy Regulator within the stated timeframe	Number of reports on the implementation of the Learnership and Internship Programmes considered by the relevant committee or the Energy Regulator within the stated timeframe
Definition	This is the number of reports on partnership creation, which include engagements with other regulators; participation in regulatory associations, events and conferences; and partnerships with other institutions for capacity building purposes – aimed at positioning NERSA as a recognised regulator nationally, regionally and internationally considered by the relevant subcommittee	This is reports on the implementation of the learnership and Internship programmes
Source of data	Reports on an overview of international engagements and partnerships activities	Learnership and Internship programmes
Method of calculation / assessment	Number of reports	Number of reports
Assumptions	Analysis completed	Approved Learnership and Internship programmes
Disaggregation of Beneficiaries (where applicable)	<ul style="list-style-type: none"> • Target for women: N/A • Target for youth: N/A • Target for people with disabilities: N/A 	<ul style="list-style-type: none"> • Target for women: N/A • Target for youth: N/A • Target for people with disabilities: N/A
Spatial transformation (where applicable)	<ul style="list-style-type: none"> • Contribution to spatial transformation priorities: N/A • Description of Spatial Impact: N/A 	<ul style="list-style-type: none"> • Contribution to spatial transformation priorities: N/A • Description of Spatial Impact: N/A
Desired Performance	2 reports on partnership creation to position NERSA as a recognised regulator nationally, regionally and internationally considered annually by the REC by 31 March	1 report on the implementation of the Learnership and Internship Programmes considered annually by the HRRC by 31 March
Indicator Responsibility	EM (COS) and HOD (ICP)	CHCO



ANNUAL PERFORMANCE PLAN 2020/21 - 2022/23

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CHAIRPERSON'S STATEMENT

In regulating the energy industry, we acknowledge the pivotal role Energy Regulator plays in economic growth. In modern economies, economic growth is closely associated with increasing energy consumption. The availability of secure, reliable and affordable energy supply is essential for industrial processes and the provision of public services such as lighting, heating, cooking, information and communication technology, and mobility. The key role of the Regulator is underpinned by its mandate that is enshrined in its founding legislation and is aligned to the objectives of our government. In regulating the electricity, piped-gas and petroleum pipelines industries, the Regulator adheres to the regulatory principles of transparency; neutrality; consistency and predictability; independence; accountability; integrity; efficiency; and public interest.

The Energy Regulator does not function in isolation and needs to take cognisance of the developments, trends and challenges within the global energy environment. The global energy system is undergoing unprecedented change, driven by forces such as technological innovation, changes in consumption patterns, supply dynamics and policy shifts. In addition, the geopolitical landscape of energy is quickly shifting and environmental concerns poses a serious challenge. At the same time, the economics of competing energy sources have changed, and the advent of Fourth Industrial Revolution technologies have enabled new business models, while making others obsolete.

Over the next 20 years, the global energy system will face a critical challenge in respect of decarbonising the power sector while at the same time endeavouring to meet the rapid increase in the demand for power, especially in developing countries. Renewable energy has a vital role to play in meeting that challenge, but it is unlikely to be able to do so on its own. A variety of different technologies and fuels are likely to be required, including extensive coal-to-gas switching and the widespread deployment of carbon capture, use and storage.

With regard to continental developments, in Sub-Saharan Africa the energy demand is very low. However, there are several factors pointing towards potentially rapid and prolonged growth in demand: strong economic expansion; increasing urbanisation; industrialisation and modernisation; a burgeoning middle class in many countries; as well as a legacy of unmet energy demand. The power system is expanding rapidly and the power mix becomes more diverse, with coal (mainly South Africa) and hydropower (all regions), being joined by greater use of gas (Nigeria, Mozambique, Tanzania), solar (South Africa and Nigeria) and geothermal (East Africa).

The Southern African region is relatively well endowed with energy resources. It has vast energy potential from solar, wind, nuclear, hydro, thermal, gas and petroleum sources in several countries. Natural gas is becoming more significant to the region's energy sector, as Mozambique, Namibia, South Africa and Tanzania are developing the natural gas fields in their respective countries. New natural gas discoveries by international oil companies in Mozambique and Tanzania during the past decade have ignited investor interest in this previously under-explored region.

As we are planning going into the new decade, we need to acknowledge the developments that took place in South Africa since we published our previous Strategic Plan. The country has been able to commit to a total of 18 000MW of new generation capacity. Coal will remain a key factor in electricity generation in South Africa in the near future. Government decided to extend Koeberg's design life and the expansion of the nuclear power programme into the future in order to ensure that nuclear power remains a factor in the energy mix. Gas to power technologies provide the flexibility required to complement renewable energy. Exploration to assess the magnitude of local recoverable shale and coastal gas are being pursued. Co-operation and partnerships with neighbouring countries is critical for South Africa.



In developing this Annual Performance Plan NERSA took cognisance of the aforementioned, as it assisted us in deciding on appropriate responses by incorporating any relevant trends and energy-related developments into its strategy.

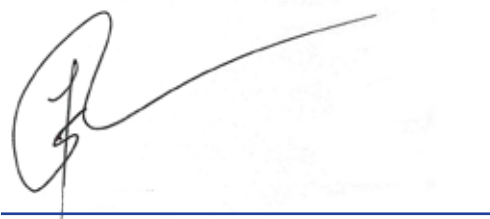
The Government, through the National Development Plan, envisages that, by 2030, South Africa will have an energy sector that provides reliable and efficient energy service at competitive rates; that is socially equitable through expanded access to energy at affordable tariffs; and that is environmentally sustainable through reduced emissions and pollution. In carrying out its mandate, the Regulator endeavours to facilitate the availability of reliable, affordable and clean energy to which will lead to sustainable economic and social development. Therefore, contributing to the economic growth of our country through the effective and efficient regulation is a priority for the Energy Regulator. A critical factor that affects the economy of a country is the cost of energy. In the case of South Africa, where electricity is the main source of energy, the cost of electricity is paramount. The Energy Regulator therefore have to, in collaboration with key stakeholders, consider the best way to provide affordable electricity.

Another priority for the Regulator is the availability of secure, adequate and reliable energy supply. The challenges South Africa experienced in the last few years with load shedding and unplanned power outages accentuated the importance of the reliable supply of energy, because it severely affected all sectors of society. The Energy Regulator is committed to collaborate with Government and all stakeholders to address this challenge, within the parameters of its mandate.

On 7 February 2019, the Honourable President Cyril Ramaphosa announced in his State of the Nation Address that Government “we shall immediately embark on a process of establishing three separate entities – Generation, Transmission and Distribution – under Eskom Holdings”. In this regard, the Regulator will investigate what the most appropriate regulatory framework would be for the licensing of the restructured electricity supply industry following the unbundling of Eskom.

NERSA’s Annual Performance Plan for the period 2020/21 to 2022/23 is informed by the five-year Strategic Plan (2020/21 – 2024/25). The Annual Performance Plan’s targets have been set against each outcome outlined in the Strategic Plan. Specific, measurable, achievable, realistic and time-bound key performance indicators for 2020/21 with quarterly targets will ensure that the strategic outcomes are achieved. Adequate resourcing of the organisation, as well as the quarterly performance reviews will ensure the assessment of the overall performance of each programme against this Annual Performance Plan.

The Energy Regulator takes pride in submitting its Annual Performance Plan, which sets out the strategic focus for the 2020/21 to 2022/23 planning period. The Energy Regulator fully endorses this Annual Performance Plan and commits to supporting its implementation.



Jacob RD Modise
Chairperson of the Energy Regulator

CHIEF EXECUTIVE OFFICER'S STATEMENT

The Energy Regulator (NERSA) was established on 1 October 2005 on terms of the National Energy Regulator Act, 2004 (Act No. 40 of 2004). Its mandate is to regulate the electricity industry in terms of the Electricity Regulation Act, 2006 (Act No. 4 of 2006), the piped-gas industry in terms of the Gas Act, 2001 (Act No. 48 of 2001), and the petroleum pipelines industry in terms of the Petroleum Pipelines Act, 2003 (Act No. 60 of 2003).

The mandate of NERSA, as contained in the relevant legislation, is summarised as follows:

- Issuing of licences and setting pertinent conditions;
- Setting and/or approving tariffs and prices;
- Monitoring and enforcing compliance with licence conditions;
- Dispute resolution including mediation, arbitration and the handling of complaints;
- Gathering, storing and disseminating industry information;
- Setting of rules, guidelines and codes for the regulation of the three industries;
- Determination of conditions of supply and applicable standards; and
- Registration of import and production activities.

In carrying out its mandate, NERSA endeavours to achieve its vision to be a recognised world-class leader in energy regulation. NERSA is expected to implement its mandate and to take the necessary regulatory decisions proactively in anticipation of and in response to the changing circumstances in the energy industry. The role of NERSA is to ensure the development and sustainability of the electricity, piped-gas and petroleum pipelines industries, while facilitating the affordability of and accessibility to these industries to balance the economic interests of all stakeholders to ensure sustainable socio-economic development of South Africa and a better life for all.

During the previous planning period, the Regulator upheld its regulatory principles of transparency, neutrality, consistency and predictability, independence, accountability and integrity in regulating the electricity, piped-gas and petroleum pipelines industries. In addition, NERSA's focus was the continued alignment of its regulatory

mechanisms with the transformation of the energy sector by ensuring the development of a sustainable energy mix.

The strategy of NERSA in the previous reporting period was aligned towards the realisation of its mission and vision and emphasising NERSA as a key enabler in advancing economic growth and social development within South Africa. The Regulator continued to ensure the orderly development in the energy sector, mainly through licensing, setting and approving of prices and tariffs, compliance monitoring and enforcement, and dispute resolution in the electricity, piped-gas and petroleum pipelines industries. In addition, NERSA also commenced with a process to contribute towards the transformation of the energy industry, within the ambit of our mandate. NERSA is very proud to have been able to achieve consecutive clean audit reports during the past five years, which is a reflection of the strength and integrity of its corporate governance structure.

The development of this Annual Performance Plan was informed by the Strategic Plan for the 2020/21 to 2024/25 planning period. The targets identified in the Annual Performance Plan provides the basis for our strategic focus for the next financial year and for the forthcoming medium-term period, which is in line with and in support of one of the key priorities derived from the Electoral Mandate and the State of the Nation Address, namely *Economic Transformation and Job Creation*. These targets aim to address the following key priorities:

- Contributing to the economic growth of our country through the effective and efficient regulation;
- Facilitating availability of secure, adequate and reliable energy supply; and
- Investigating an appropriate regulatory framework required for the licensing of the restructured electricity supply industry following the unbundling of Eskom.

The identified targets will contribute to the achievement of the following outcomes as stated in the Strategic Plan for 2020/21 to 2024/25:



Electricity Industry

1. Accessible and affordable electricity for all citizens.
2. Energy supply that is certain and secure for current and future user needs through the orderly development and operation of the electricity supply infrastructure.
3. A regulatory environment that facilitates investment in electricity infrastructure.
4. Regulatory certainty within the electricity industry.

Piped-Gas Industry

1. Access to competitive gas prices and gas services.
2. Efficient, sustainable and orderly development of the piped-gas industry aimed at security of supply.
3. A regulatory environment that facilitates investment in piped-gas infrastructure
4. A competitive piped-gas industry.
5. Regulatory certainty within the piped-gas industry.

Petroleum Pipelines Industry

1. Access to petroleum infrastructure.
2. Efficient, sustainable and orderly development of a transformed petroleum pipelines industry aimed at security of supply.
3. A regulatory environment that provides regulatory certainty and facilitates investment in petroleum pipeline infrastructure.
4. A competitive petroleum pipelines industry.

The organisational outcome is "An enabling environment for the benefit of internal and external stakeholders with a skilled workforce that is empowered to work in a complex and ambiguous environment."

The achievement of these outcomes will be enabled through, amongst others, revised regulatory methodologies and rules; continued monitoring of licensees' performance; contributing towards the restructuring of the energy industry; periodic assessment of adequacy of competition; decreasing regulatory burden; improved critical business and regulatory processes.

The implementation of this Annual Performance Plan is driven by management and staff under the strategic guidance and support of the Energy Regulator. I would like to take this opportunity to state that our commitment to implementing this Plan is based on our history of achieving more than 90% of our planned targets for the last five years. Thus, we will succeed in facilitating a secure, reliable, affordable, sustainable, competitive and transformed energy industry, which contributes to the economic growth of South Africa.




Chris Forlee

Chief Executive Officer of the Energy Regulator

OFFICIAL SIGN-OFF

It is hereby certified that this Annual Performance Plan:

- was developed by the Energy Regulator with inputs from the Executive Management of NERSA;
- takes into account all the relevant policies, legislation and other mandates for which the Energy Regulator is responsible; and
- accurately reflects the outcomes and outputs that the Energy Regulator will endeavour to achieve over the period 2020/21 – 2022/23.



Gerda Gräbe

Senior Manager: Strategic Planning and Monitoring



Nthupheni Ragimana

Acting Chief Financial Officer



Christopher Forlee

Chief Executive Officer (Accounting Officer)

Approved by



Jacob RD Modise

Chairperson (on behalf of the Accounting Authority)



ACRONYMS AND ABBREVIATIONS

Acronym / Abbreviation	Stands for
AFDB	African Development Bank
AFUR	African Forum for Utility Regulators
APP	Annual Performance Plan
B-BBEE	Broad-Based Black Economic Empowerment
CAGR	Compound Annual Growth Rate
CBM	Coal Bed Methane
CCGT	Closed Cycle Gas Turbine
CNG	Compressed Natural Gas
CPI	Consumer Price Index
DJP	Durban-to-Johannesburg Pipeline
DoE	Department of Energy
DMRE	Department of Mineral Resources and Energy
ELR	Electricity Regulation
ESI	Electricity Supply Industry
FBE	Free Basic Electricity
FID	Final Investment Decision
FLNG	Floating Liquefied Natural Gas
GAR	Piped-Gas Regulation
GDP	Gross Domestic Product
GJ	Gigajoule
GSA	Gas Supply Agreement
GUMP	Gas Utilisation Master Plan
HDI/HDSA	Historically Disadvantaged Individuals/South Africans

Acronym / Abbreviation	Stands for
IBT	Inclining Block Tariff
IDM	Integrated Demand Management
IEA	International Energy Agency
IEP	Integrated Energy Plan
IPP	Independent Power Producer
IRP	Integrated Resource Plan
ISO	International Organisation for Standardisation
LNG	Liquefied Natural Gas
MPP	Multi-Product Pipeline
MTEF	Medium-Term Expenditure Framework
MTSF	Medium-Term Strategic Framework
MW	Megawatt
NDP	National Development Plan
NERSA	National Energy Regulator of South Africa
NFI	Non-Financial Information
OCGT	Open Cycle Gas Turbine
OECD	Organisation for Economic Co-operation and Development
PE(R)STEL	Political, Economic, Regulatory, Social, Technological, Environmental and Legal
PFMA	Public Finance Management Act, 1999 (Act No. 1 of 1999)
PPA	Power Purchase Agreement
PPR	Petroleum Pipelines Regulation
PV	Photovoltaic

Acronym / Abbreviation	Stands for
REIPP	Renewable Energy Independent Power Producer
REIPPPP	Renewable Energy Independent Power Producer Procurement Programme
RERA	Regional Electricity Regulatory Association
RIA	Regulatory Impact Assessment
ROMPCO	Republic of Mozambique Pipeline Investment Company
SACREEE	SADC Centre for Renewable Energy, Energy and Efficiency
SADC	Southern African Development Community
SAPIA	South Africa Petroleum Industry Association
SAPP	Southern African Power Pool
SCOA	Standard Chart of Accounts
SIP	Strategic Integrated Project



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PART A: OUR MANDATE

1. UPDATES TO THE RELEVANT LEGISLATIVE AND POLICY MANDATES

- 1.1. There have been no changes to NERSA's legislative and other mandates.
- 1.2. NERSA is the regulatory authority established in terms of the National Energy Regulator Act, 2004 (Act No. 40 of 2004) with the mandate to 'undertake the functions of the National Electricity Regulator as set out in the Electricity Regulation Act, 2006 (Act No. 4 of 2006), undertake the functions of the Gas Regulator as set out in the Gas Act, 2001 (Act No. 48 of 2001), undertake the functions of the Petroleum Pipelines Regulatory Authority as set out in the Petroleum Pipelines Act, 2003 (Act No. 60 of 2003) and to perform such other functions as may be assigned to it by or under these Acts'.
- 1.3. The regulatory functions of NERSA, as contained in the legislation relevant for the regulation of the energy industry, are summarised as follows:
 - issuing of licences with conditions;
 - setting and/or approving tariffs and prices;
 - monitoring and enforcing compliance with licence conditions;
 - dispute resolution including mediation, arbitration and the handling of complaints;
 - gathering, storing and disseminating industry information;
 - setting of rules, guidelines and codes for the regulation of the three industries;
 - determining of conditions of supply and applicable standards;
 - consulting with government departments and other bodies with regard to industry development and regarding any matter contemplated in the three industry Acts;
 - expropriating land as necessary to meet the objectives of the relevant legislation;
 - registration of import and production facilities; and
 - performing any activity incidental to the execution of its duties
- 1.4. NERSA derives its revenue by, among others, imposing prescribed levies on the regulated industries following a prescribed transparent procedure. In this regard, the following Acts govern the imposition of such levies:
 - the Gas Regulator Levies Act, 2002 (Act No. 75 of 2002);
 - the Petroleum Pipelines Levies Act, 2004 (Act No. 28 of 2004); and
 - section 5B of the Electricity Act, 1987 (Act No. 41 of 1987).
- 1.5. Apart from the afore-mentioned industry specific legislation that anchors NERSA's mandate and the imposition of levies, the following facilitating and foundational legislation are also applicable to NERSA's conduct of its business:
 - the Public Finance Management Act, 1999 (Act No. 1 of 1999) (PFMA), which specifies the accounting of NERSA as a Section 3A Public Entity;
 - the Promotion of Access to Information Act, 2000 (Act No. 2 of 2000) (PAIA), which determines the way that NERSA has to treat access to information;
 - the Promotion of Administrative Justice Act, 2000 (Act No. 3 of 2000) (PAJA), which determines just administrative action of NERSA;
 - the Protection of Personal Information, 2013 (Act No. 4 of 2013), which determines the way that NERSA has to treat personal information; and
 - all other applicable laws of the Republic of South Africa.
- 1.6. NERSA's mandate is further derived from published government policies and regulations developed by the Minister in terms of the Electricity Regulation Act, Gas Act and Petroleum Pipelines Act. As outlined in these legislative prescripts, NERSA must make decisions that are not at variance with published government policy. The relevant applicable policies are:
 - White Paper on Energy Policy for South Africa of 1998;
 - Electricity Pricing Policy (EPP) of the South African Electricity Supply Industry;
 - Free Basic Electricity Policy;
 - White Paper on Renewable Energy Policy for South Africa of 2003; and
 - Energy Security Master Plan: Liquid Fuels published by the Department of Energy in 1998 and 2007.



- 1.7. NERSA advocates the implementation of the White Paper on Energy Policy of 1998 before the principles enshrined in the policy and suite of subsequent legislation are overhauled. As the Energy Regulator, we are aware that the policies of 1998 and consequent suite of legislation (Gas Act, Petroleum Pipelines Act, National Energy Regulator Act and Electricity Regulation Act) that were developed between 2001 and 2006 have been actively implemented since the establishment of NERSA in October 2005. It is only now that we are able to give private investors some certainty regarding energy infrastructure investments and the level playing field we are expected to provide. Recent private sector licence applications in the piped-gas and petroleum pipelines industries are a testimony to the success of government's liberalisation policies.
- 1.8. The Electricity Regulation Act gives the mandate for competitive bidding of electricity generation capacity to the Department of Mineral Resources and Energy (DMRE), following a Cabinet decision that private sector participation in the electricity industry be split 70:30 between Eskom and the private sector, with DMRE procuring the plant and Eskom being the 'off-taker'. Thus, it is competition for the market but not within the market at this stage.
- 1.9. With the rapid price reduction of solar panels, a situation has arisen where rooftop solar has started to become attractive for residential consumers. This is more pronounced with commercial premises. These installations are not effectively dealt with in the current regulatory framework because the 'Electricity Regulations on New Generation Capacity' are only applicable to state-owned entities.
- 1.10. To license all of these small installations is also onerous to the installer and NERSA. It is a much too expensive and complex process to be a realistic option for dealing with this class of generation. However, in spite of their small size, the large amount of them means that collectively they will make up a significant portion of generation capacity. This will impact allocations made in the Integrated Resource Plan (IRP).

- 1.11. In the previous five-year planning period, NERSA has seen that there are developments in the three industries that are not covered by the current industry-specific Acts. This requires a review of the regulatory legislation.

2. UPDATES TO INSTITUTIONAL POLICIES AND STRATEGIES

- 2.1. Although policy formulation is outside of NERSA's realm of authority, specific policy gaps are continuously identified that require ongoing dialogue and strategic engagement with the Department of Mineral Resources and Energy in order to ensure that there is alignment between NERSA's strategic direction and the Department's policy thrusts.
- 2.2. In addition to its mandate as per the legislation mentioned in the previous section, the Energy Regulator's decisions are informed by published policies of government. Within the parameters of NERSA's mandate and the resultant functions, NERSA contributes towards critical government priorities and programmes. Below is a summary of NERSA's contributions towards the –
- enabling milestones in the National Development Plan (NDP);
 - strategic integrated projects in the National Infrastructure Plan (NIP); and
 - seven priorities announced by the Honourable President, Mr Cyril Ramaphosa during the State of the Nation Address (SONA) in Parliament on 20 June 2019

2.2.1. NERSA's contribution to the National Development Plan

- a) The National Development Plan (NDP) is a plan for the country to eliminate poverty and reduce inequality by 2030 through uniting South Africans, unleashing the energies of its citizens, growing an inclusive economy, building capabilities, enhancing the capability of the state and leaders working together to solve complex problems. The high-level objectives of the NDP are to:
- Reduce the number of people who live in households with a monthly income below R419 per person (in 2009 prices) from 39% to zero; and
 - Reduce inequality, as measured by the Gini Co-efficient, from 0.69 to 0.6.

- b) Chapter 4 of the NDP deals with Economic infrastructure – the foundation of social and economic development. This chapter places emphasis on the need for South Africa to maintain and expand, among others, its electricity infrastructure in order to support economic growth and social development goals. In respect of the regulation of the energy sector, NERSA noted that the NDP calls for more emphasis on stimulating market competition and promoting affordable access to quality services when issuing licences and setting tariffs.
- c) In order to achieve the NDP goals by 2030, 19 enabling milestones were identified. Even though NERSA contributes indirectly to most of the enabling milestones, NERSA contributes specifically to 4 pertinent enabling milestones. Table 1 below summarises NERSA's contribution to the relevant enabling milestones.



Table 1: NERSA's contribution to the NDP

Relevant enabling milestones	NERSA's contribution
1: Increase employment from 13 million in 2010 to 24 million in 2030	<ul style="list-style-type: none"> • Implementation of the Youth Employment Accord; • Implementation of a Learnership Programme as well as an Internship Programme; • Training and development of staff and stakeholders; and • Techno Girls programme where ten girls from grade 9 to grade 12 are exposed to NERSA's activities through visits to the organisation during school holidays.
4: Establish a competitive base of infrastructure, human resources and regulatory frameworks	<ul style="list-style-type: none"> • Publication of rules, codes and guides for the regulation of the electricity, piped-gas and petroleum pipelines industries; • Setting rules and frameworks that facilitate the building of new infrastructure; • Setting and/or approving cost reflective tariffs and market related prices that encourage investment; • Facilitating and enforcing third-party access to facilities; • Monitoring compliance through undertaking technical audits leading to regular maintenance and refurbishment of infrastructure and thus contributing to an increase in quality of supply;
5: Ensure that skilled, technical, professional and managerial posts better reflect the country's racial, gender and disability makeup	<ul style="list-style-type: none"> • NERSA ensures continued compliance with the Skills Development Act. • Implementation of an Employment Equity Plan; • When recruiting new staff members, NERSA ensures as far as possible that the representation within the relevant department and division reflects the country's racial, gender and disability makeup.
6: Broaden ownership of assets to historically disadvantaged groups	<ul style="list-style-type: none"> • Licensing and the setting and/or approving of tariffs and prices, as in this manner NERSA creates pre-conditions towards the achievement of this milestone; • Issuing licences to eligible applicants to facilitate the meeting of stated socio-economic development targets; • Facilitating and enforcing third-party access to facilities; • Promoting companies that are owned and controlled by Historically Disadvantaged Individuals (HDIs) to become competitive; and • Regulatory advocacy for strengthening the powers of the Regulator.

Relevant enabling milestones	NERSA's contribution
<p>10: Produce sufficient energy to support industry at competitive prices, ensuring access for poor households, while reducing carbon emissions per unit of power by about one-third</p>	<ul style="list-style-type: none"> • Regulating in a manner which facilitates security of supply; • Taking affordability into consideration when setting and/or approving tariffs and prices; • Determining inclining block tariffs and free basic electricity tariffs to protect the low income electricity consumers; • Facilitating the conclusion of Power Purchase Agreements between the buyer and the renewable energy Independent Power Producers; • Facilitation of the implementation of the Integrated Resource Plan (IRP) through considering concurring with determinations made by the Minister in line with section 34 of the Electricity Regulation Act, 2006 (Act No. 4 of 2006); • Development and implementation of the Grid Code for renewable energy to facilitate the introduction of renewable energy power producers; • Registration of gas importation and production facilities; • Monitor the implementation of the Gas Utilisation Master Plan (once promulgated).Facilitating access to electricity in setting aside some funds for the Electrification Cross-subsidy as part of determining electricity prices; • Incorporating compliance with the National Environmental Management Act, 1998 (Act No. 107 of 1998) into licence conditions; • Promoting energy efficiency in general in South Africa and in particular in the NERSA building; • Facilitating the transition to a low carbon economy; and • Regulatory advocacy with regard to cleaner fuels policy.



2.2.2. NERSA's contribution to the National Infrastructure Plan

a) The South African Government adopted a National Infrastructure Plan (NIP) in 2012 that intends to strengthen the delivery of basic services and transform South Africa's economic landscape while simultaneously creating significant numbers of new jobs. The plan also supports the integration of African economies. The New Growth Path sets a goal of five million new jobs by 2020, identifies structural problems in the economy to be overcome and points to opportunities in specific sectors and markets or 'jobs drivers'.

b) In order to address these challenges and goals, a total of 18 strategic integrated projects (SIPs) have been developed. The following three SIPs were identified for energy:

1. SIP 8: Green energy in support of the South African economy
 - Support sustainable green energy initiatives on a national scale through a diverse range of clean energy options as envisaged in the Integrated Resource Plan (IRP2010).

- Support bio-fuel production facilities.

2. SIP 9: Electricity generation to support socio-economic development

- Accelerate the construction of new electricity generation capacity in accordance with the IRP2010 to meet the needs of the economy and address historical imbalances.

- Monitor implementation of major projects such as new power stations: Medupi, Kusile and Ingula.

3. SIP 10: Electricity transmission and distribution for all

- Expand the transmission and distribution network to address historical imbalances, provide access to electricity for all and support economic development.

- Align the 10-year transmission plan, the services backlog, the national broadband roll-out and the freight rail line development to leverage off regulatory approvals, supply chain and project development capacity.

Table 2 below summarises NERSA's contribution to the relevant strategic integrated projects.

Table 2: NERSA's contribution to the NIP

Relevant SIPs	NERSA's contribution
8: Green energy in support of the South African economy	<ul style="list-style-type: none"> • Facilitating the conclusion of Power Purchase Agreements between the buyer and the renewable energy Independent Power Producers; • Incorporating compliance with the National Environmental Management Act, 1998 (Act No. 107 of 1998) into licence conditions; • Facilitation of the implementation of the Integrated Resource Plan (IRP) through considering concurring with determinations made by the Minister in line with section 34 of the Electricity Regulation Act, 2006 (Act No. 4 of 2006); • Facilitating the transition to a low carbon economy; and • Regulatory advocacy with regard to cleaner fuels policy.

Relevant SIPs	NERSA's contribution
9: Electricity generation to support socio-economic development	<ul style="list-style-type: none"> • Regulating in a manner which facilitates security of supply and investment; • Facilitating the conclusion of Power Purchase Agreements between the buyer and the renewable energy Independent Power Producers; • Setting rules and frameworks that facilitate the building of new infrastructure; • Setting and/or approving cost reflective tariffs and prices that encourage investment; • Monitoring compliance through undertaking technical audits leading to regular maintenance and refurbishment of infrastructure and thus contributing to an improvement in quality of supply.
10: Electricity transmission and distribution for all	<ul style="list-style-type: none"> • Facilitating access to electricity in setting aside some funds for the Electrification Cross-subsidy as part of determining electricity prices; • Taking affordability into consideration when setting and/or approving tariffs and prices, while allowing a provision for expansion of current operations; • Determining inclining block tariffs and free basic electricity tariffs to protect the low income electricity consumers; • Facilitating reliability of supply; • Determining benchmarks and monitoring maintenance of infrastructure; • Auditing of the implementation of the Transmission Development Plan; • Monitoring compliance with licence conditions; and • Dispute resolution, including mediation, arbitration and handling of complaints.

2.2.3. NERSA's contribution to government's priorities

a) In the State of Nation Address on 20 June 2019, President Cyril Ramaphosa announced the following seven priorities for government were identified to realise the vision of the National Development Plan (NDP):

- Priority 1: Economic Transformation and Job Creation;
- Priority 2: Education, Skills and Health;
- Priority 3: Consolidating the Social Wage through Reliable and Quality Basic Services;
- Priority 4: Spatial Integration, Human Settlements and Local Government;
- Priority 5: Social Cohesion and Safe Communities;
- Priority 6: A Capable, Ethical and Developmental State; and
- Priority 7: A better Africa and World

b) NERSA identified Priority 1: Economic Transformation and Job Creation as the key priority to which it can contribute – as part of implementing its mandate. NERSA will also contribute towards Priority 6: A Capable, Ethical and Developmental State.



Table 3 below summarises NERSA's contribution to these two priorities.

Table 3: NERSA's contribution to the government's priorities

Relevant enabling milestones	NERSA's contribution
1: Economic Transformation and Job Creation	<p>By facilitating investment in the energy industry and thereby contributing to economic growth, leading to job creation, NERSA contributes through:</p> <ul style="list-style-type: none"> • licensing and the setting and/or approving of tariffs and prices, as in this manner NERSA creates pre-conditions towards the achievement of this priority; • approving renewable energy licenses to ensure that the socio-economic development commitments specified in the bidding process are met; • promoting companies that are owned and controlled by Historically Disadvantaged Individuals (HDIs) to become competitive; and • regulating in a manner that facilitates security of supply. <p>Contributing to a competitive and responsive economic infrastructure network through:</p> <ul style="list-style-type: none"> • Setting rules and frameworks that facilitate the building of new infrastructure; • Setting and/or approving cost reflective tariffs and prices that encourage efficient investment; • Facilitating and enforcing third-party access to facilities; • Monitoring compliance and undertaking technical audits leading to regular maintenance and refurbishment of the infrastructure and therefor to the improvement in quality of supply; and • Promoting competition and competitiveness in the energy industry.
6: A Capable, Ethical and Developmental State	<ul style="list-style-type: none"> • Transparent regulatory processes; • All decisions and reasons thereof are made public through being published on the website; • The public is invited to make comments prior to decisions being made (written or in public hearing); • Customer education programmes and awareness campaigns; • Training and development of staff and stakeholders, including training to electricity distributors on the completion of the forms requesting information from them; and • Techno Girls programme - where ten girls from grade 9 to grade 12 are exposed to NERSA's activities through visits to the organisation during school holidays

3. UPDATES TO RELEVANT COURT RULINGS

The ruling by the court in the following two cases have a significant impact on the operations or service delivery obligations:

2.1. Interruption of supply of electricity to Emfuleni, which includes supply to Cape Gate Pty (Ltd)

2.1.1. Applicant: Cape Gate Pty (Ltd) and Others

2.1.2. Defendant / Respondent: Eskom, Emfuleni, NERSA and other

2.1.3. Synopsis: The Applicant sought an -

- interdict against Eskom to prevent it from implementing its power supply interruption decision;
- order that the decision to implement interruptions in the electricity supply be reviewed and set aside; and
- order that Eskom supply electricity on an uninterrupted basis to the Municipality on the basis that direct payment will be made to Eskom.

2.1.4. Court ruling: The following orders were issued:

- The dispute regarding non-payment by Emfuleni to Eskom was referred to the respondents for resolution in terms of section 41(3) of the Constitution.
- Eskom was interdicted from interrupting electricity supply to Emfuleni, pending resolution of the dispute within six months of this order or pending the outcome of the final determination of Part B of the application, whichever is earlier.
- The applicants were authorized, subject to appropriate oversight by NERSA, performing its statutory functions, to discharge their debt to Emfuleni by –
 - Making payment directly to Eskom for electricity they consume at the rate of Eskom, and submitting proof thereof to Emfuleni.
 - Continuing to pay the difference between the municipal tariff and Eskom

tariff (the municipal portion) to Emfuleni.

- The respondents, including NERSA, were directed to do all things necessary to give effect to the temporary order.
- Emfuleni's obligations and duties to the Applicants will not be affected by this order.

2.1.5. Ongoing impact on operations or service delivery obligations:

- The order authorising end users to make direct payments to Eskom for electricity they consume is not in line with the current legal framework. It was made as a just and equitable relief.
- It has serious implications for municipalities and the work that NERSA does.

2.2. Issues related to the approved maximum prices of gas and approved transmission tariffs for Sasol Gas

2.2.1. Applicant: NERSA and Sasol Gas

2.2.2. Defendant / Respondent: PG Group and Others

2.2.3. Synopsis:

- PG Group & Others, together called the Gas Users Group (GUG), were unhappy about the maximum prices of gas and transmission tariffs approved for Sasol Gas by NERSA, which came into operation on 26 March 2014. GUG submitted that the prices are excessive and therefore sought an order to -
 - review and set aside the abovementioned approvals by NERSA; and
 - review and set aside the methodology used by NERSA to consider the abovementioned maximum price application, or declaring such methodology to be invalid for purposes of such consideration. NERSA contests the action by the applicants.
- After the Court granted judgement in favour of NERSA and SASOL, the GUG appealed.



2.2.4. Court ruling:

- Both the Supreme Court of Appeal and the Constitutional Court granted a judgement against NERSA and Sasol. The Constitutional Court effectively criticised the price indicator method used to determine maximum prices.

2.2.5. Ongoing impact on operations or service delivery obligations:

- Following the ruling of the Constitutional Court, the Energy Regulator has been unable to process any maximum price applications using the price indicator approach. Work is in progress to develop an interim mechanism, while attending to the review of the Maximum Price Methodology, in line with the Constitutional Court ruling.



PART B: OUR STRATEGIC FOCUS

1. UPDATED SITUATIONAL ANALYSIS

1.1. EXTERNAL ENVIRONMENT ANALYSIS

The performance environment of NERSA is impacted upon by energy demand and supply trends and developments in the global, continental, regional and national environments.

1.1.1. Global Trends

According to the World Economic Forum insight report, the following key issues of the energy system and energy transition are worth noting, as summarised below:

- a) Energy is a key element of the modern economy. The availability of secure and reliable energy supply is essential for industrial processes and the provision of public services such as lighting, heating, cooking, information and communication technology, and mobility.
- b) The energy system is undergoing unprecedented change, driven by forces such as technological innovation, changes in consumption patterns, supply dynamics and policy shifts. These forces offer opportunities to resolve the challenges that the global energy system faces today, namely:
 - providing energy access to the more than one billion people who lack it;
 - meeting demand for an additional two billion people by 2050 while delivering that energy at an affordable cost; and
 - ensuring that the carbon and emissions footprint decline.
- c) The geopolitical landscape of energy is quickly shifting and environmental concerns have shaken the system's foundations. At the same time, the economics of competing energy sources have changed, and the advent of Fourth Industrial Revolution technologies have enabled new business models, while making others obsolete. The latter has created significant uncertainty about the

pace and destination of the transformation, making a strong case for a systemic, multi-stakeholder approach that increases the transparency of the enablers and reforms needed for countries to achieve an effective energy transition.

- d) Energy systems are complex and are at the heart of every country's economy. These systems aim to support society in the three dimensions of the energy triangle, namely:
 - inclusive economic development;
 - environmental sustainability; and
 - secure and reliable access to energy.
- e) The boundaries of energy systems have recently started shifting. The stakeholders are diverse, including:
 - end users and industrial consumers;
 - energy companies;
 - financial sector entities;
 - policy-makers;
 - cities;
 - international energy organizations; and
 - civil society.
- f) In the last decade the following trends have emerged:
 - Technological progress has allowed new forms of producing, storing, transforming and consuming energy, altering the nature of the energy system.
 - Energy consumption patterns have fundamentally shifted, resulting in new demand dynamics.
 - Policy-makers have started to adapt energy policies, and new coalitions have been formed to address challenges and harness opportunities associated with these developments.
- g) Countries can use these game-changing trends to enhance their energy systems and improve the wellbeing of their populations.



1.1.2. Global Energy Consumption and Demand Trends

- a) The global energy sector has changed dramatically over the last 25 years, with larger changes possible over the next 25. The magnitude and direction of these changes, however, is highly uncertain. According to the Global Energy Outlook (2019), global primary energy consumption has grown rapidly over the past 25 years, reaching 546 quadrillion Btu (qBtu) in 2015, more than 190 qBtu higher than 1990 levels. Over the next 25 years, growth is projected to slow down, increasing by roughly 110 to 160 qBtu in Evolving Policies scenarios, and declining by as much as 4 qBtu under Ambitious Climate scenarios (see Figure 1 below).
- b) The International Energy Outlook current policies scenario (IEA CPS) shows the highest consumption in 2040 at 767 qBtu, an increase of 41% from 2015's levels. OPEC and the Institute of Energy Economics Japan (IEEJ) project consumption of roughly 720 qBtu in 2040, similar to the absolute levels of growth from the previous 25 years. Evolving Policies scenarios project moderately slower growth, led by the IEA new policy scenario (NPS) (703 qBtu), ExxonMobil (681 qBtu), and Equinor's Reform Scenario (659 qBtu). Under two of three Ambitious Climate scenarios [IEA sustainable development scenario (SDS) and Shell Sky], global energy consumption levels are roughly flat until 2040. In the IEA SDS, demand is 544 qBtu in 2040, while Equinor Renewal projects' consumption falls to 534 qBtu in 2040. On the other hand, under Shell Sky, demand grows to 711 qBtu by 2040, higher than any Evolving Policies scenarios.
- c) With regard to the shares of global primary energy consumption by fuel projections, the Global Energy Outlook (2019) report states that fossil fuels, which made up 82% of global primary energy in 2015, dominate across Reference and Evolving Policies scenarios, ranging from 74% to 79% in 2040 (see Figure 2 below). Under Ambitious Climate scenarios, fossil fuels decline from 60% to 62%.

Figure 1: Global primary energy consumption²

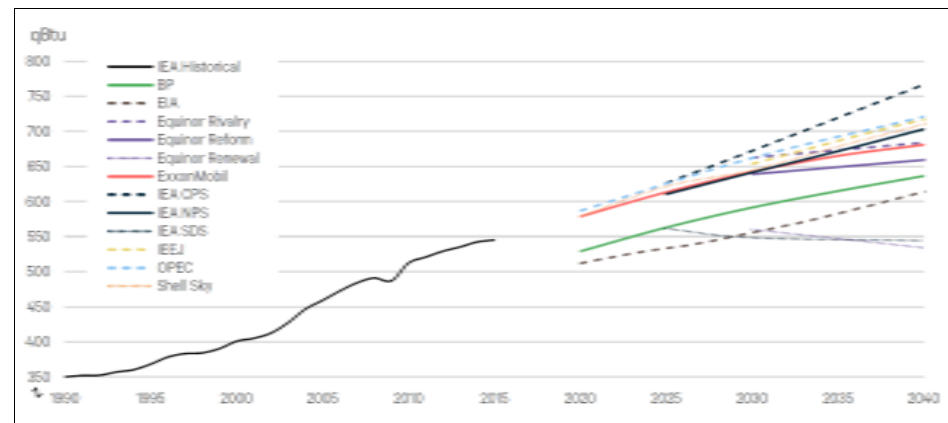
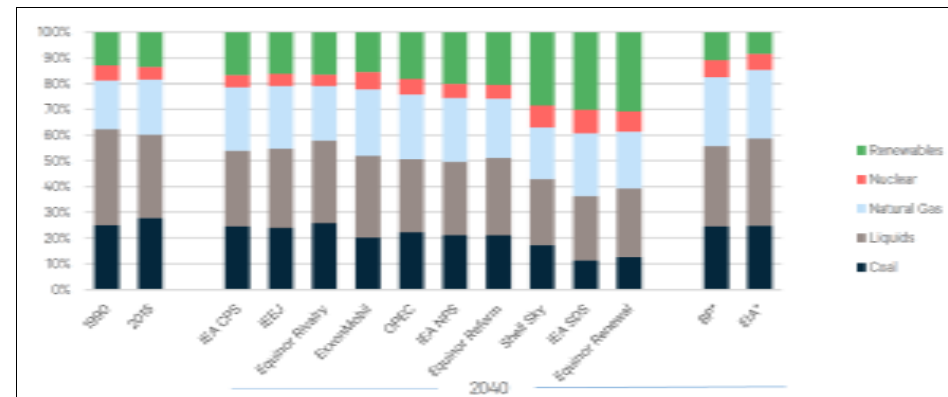


Figure 2: Shares of global primary energy consumption by fuel³



² Global Energy Outlook (2019)

³ Global Energy Outlook (2019)

- d) Liquid fuels (primary oil) will continue to be the single largest fuel source in the energy mix across most outlooks, though its share shifts from 32% in 2015 to between 28% and 32% in the Evolving Policies scenarios. Under ambitious climate policies, liquids still account for 26% to 27% by 2040, but of a smaller aggregate energy base in the case of IEA SDS and Equinor Renewal.
- e) On the other hand, natural gas becomes the secondlargest source in most out looks, rising from 21% in 2015 to between 21% and 27% by 2040.
- f) According to forecasts, coal loses market share across all projections. Under Ambitious Climate scenarios, coal declines from 28% of the mix in 2015 to between 12% and 17% by 2040. Under Evolving Policies, it falls to 20% to 22%.
- g) Renewables, led by wind and solar, will grow under all projections, though the rate of growth varies widely. Under Reference scenarios, renewables increase from 14% of the mix in 2015 to between 16% and 17%. Under Ambitious Climate scenarios, they become the largest source of global primary energy, overtaking petroleum to reach as high as 31% in 2040.
- h) Projections for nuclear's share of the mix also vary substantially, and is highest under Ambitious Climate scenarios, where it provides 8% to 9% of global primary energy, up from 5% in 2015. For other scenarios, nuclear accounts for 4% to 7% of the mix.
- i) According to the BP Report (2019)⁴, world energy demand is projected to grow by 1.3% per annum from 2016 to 2040 with all the growth coming from emerging economies. China and India will account for over a quarter of this increase. Global energy intensity [the ratio of energy demand to Gross Domestic Product (GDP)] is projected to decline by 1.9% per annum over this period. Renewables are the fastest growing fuel source, however oil and gas are still expected to account for more than half of global energy in 2040. Coal demand

peaks, with its share of primary energy expected to fall to 21% by 2040. Natural gas is expected to replace coal as the second largest source of energy, after oil.

- j) The World Energy Outlook (2018) report notes that as economies continue to grow, energy demand grows as well. Average GDP in the non-Organisation for Economic Co-operation and Development (OECD). Over the past 25 years, world economic growth has been led by the non-OECD countries, accompanied by strong growth in energy demand in those countries. From 1990 to 2015, real GDP grew by 4.9% per year in the non-OECD, compared with 2.1% per year in the OECD. In the future, the difference in economic growth rates between OECD and non-OECD countries is expected to narrow somewhat, as economic growth in non-OECD countries moderates, and as their industrial sectors move from reliance mainly on production in energy-intensive industries to more service-oriented industries.
- k) The emerging trends are as follows⁵:
 - Renewables are the world's fastest-growing energy source over the projection period. Renewable energy consumption is expected to increase by an average of 2.6% per year between 2012 and 2040.
 - Nuclear power is the world's second fastest growing energy source, with consumption increasing by 2.3% per year over that period.
 - Even though the consumption of non-fossil fuels is expected to grow faster than the consumption of fossil fuels, it is projected that fossil fuels will still account for 78% of energy use in 2040.
 - Natural gas is expected to grow faster than other fossil fuels in the next two decades. Abundant natural gas resources and robust production, including rising supplies of tight gas, shale gas, and coalbed methane, will contribute to the strong competitive position of natural gas. Shell has warned in its annual report released in March 2018 that there could be a shortage in the Liquefied Natural Gas (LNG) market in the next decade unless new investment is undertaken soon. Investment decisions on new LNG supply have come to a near standstill over the last two years. In 2017, only one large-scale LNG project reached Final Investment Decision, namely the 3.4 MTPA Coral South FLNG in Mozambique, marking the lowest volume of sanctioned LNG in nearly

⁴ BP Statistical Review of World Energy, 2019

⁵ World Energy Outlook (2018) report: The gold standard of energy analysis

⁶ International Gas Union (IGU) World Gas LNG Report – 2018 Edition, 27th World Gas Conference Edition



twenty years (IGU, 2018)⁶. According to the IGU (2018), the total volume and number of LNG contracts signed has declined consistently over the past three years.

- Although liquid fuels (mostly petroleum based) will remain the largest source of world energy consumption, the liquids share of world market energy consumption falls from 33% in 2012 to 30% in 2040. Contributing to the decline are rising oil prices in the long term, which lead many energy users to adopt more energy efficient technologies and to switch away from liquid fuels.
- Coal, the world's slowest growing energy source, will rise by 0.6% per annum and will be surpassed by natural gas by 2030.

Liquid fuels

- World consumption of liquid fuels rises from 95 million barrels per day (b/d) in 2015 to 113 million b/d in 2040 (International Energy Organisation, 2017). Most of this growth is seen in the transportation and industrial sectors with an average increase of 0.7% per year from 2015 to 2040. Non-OECD nations account for most of the increase, with demand rising by 1.3% per year compared with a slight decrease in the OECD. Most of the growth (80% of the total increase) in world liquid fuels consumption from 2015 to 2040 comes from non-OECD countries, where strong economic and population growth increase the demand for liquid fuels by 39%.
- The use of petroleum and other liquids in the industrial sector to power equipment and serve as chemical feedstocks, will increase slowly between 2015 and 2040. Furthermore, the use of petroleum and other liquids to generate electricity declines over the projection period as a result of increasing oil prices and relatively less costly natural gas, encouraging producers to switch to alternative energy sources.

Natural gas

- Global natural gas consumption is expected to grow in both the OECD and non-OECD countries from 2015 to 2040. However, the growth is higher with an expected average of 1.9% per year in non-OECD countries that have expanding industrial sectors and electricity demand, in contrast to 0.9%

per year in OECD countries. The share of world natural gas consumption in non-OECD countries increases from 53% in 2015 to 59% in 2040. Natural gas continues to be an attractive fuel for the electric power and industrial sectors in many countries, accounting for nearly 75% of the projected increase in total consumption between 2015 and 2040. Natural gas-fired generation is attractive for new power plants because of low capital costs, favourable heat rates, and relatively low fuel cost. Natural gas-intensive industries, such as chemicals, refining, and primary metals, are expected to expand over the period of 2015 to 2040 – particularly in non-OECD countries – driving industrial demand higher. The largest increases in natural gas production from 2015 to 2040 occur in the Middle East (11.8 Tcf), China (9.5 Tcf), the United States (10.7 Tcf), and Russia (4.8 Tcf).

- Demand for natural gas is expected to grow by more than half, the fastest rate among the fossil fuels, and increasingly flexible global trade in LNG offers some protection against the risk of supply disruptions. The growth in LNG increased by 29 million tonnes to 293 million tonnes in 2017. The main regions that push global gas demand higher are China and the Middle East, but gas is also expected to become the leading fuel in the OECD energy mix by around 2030. China has overtaken South Korea to become the second-largest importer of LNG as a result of switching its policies from coal to gas to reduce air pollution⁷. Japan is still the largest LNG importer, but according to Capital Markets Outlook 2018, a structural change in its energy policy could see it lose the top slot by as early as 2020. The key uncertainty is whether gas can be made available at prices that are attractive to consumers while still offering incentives for the necessary large capital-intensive investments in gas supply.
- The global interest in LNG power generation is increasing. There is also a growing demand for LNG as a bunkering fuel worldwide, albeit slowly. From 2018, ships operating in European waters will be required to report their annual greenhouse gas emissions. At the moment, ships operating in Europe must comply with a 0.5% sulphur limit, but there are options aside from using LNG as a fuel, such as installing scrubbers. The 0.5% limit will apply globally from 2020, down from the current 3.5%⁸. LNG exports from the Americas are set to rise from 2018 as supplies ratchet up from the United States, Trinidad and Tobago

and Peru. The three countries exported a combined 19.74 mt of LNG during the first nine months of 2017, a year-on-year increase of 51.5%. The LNG market is expected to grow going forward (2017 – 2021)⁷. The contributing factors for this rapid increase is the start-up of several new projects in Australia and Indonesia, rapid economic growth especially of emerging economies, and rising demand for environmentally cleaner fuels. Global Gas Analytics (GGA) forecasts that LNG exports from the Americas to increase by 10% year-on-year in 2018, to 28.4 mt.

Coal

q) According to the Coal transitions in South Africa Report, 2018), South Africa's Nationally Determined Contribution (NDC) is based on the long-term benchmark emissions trajectory range, which is contained in the National Climate Change Response Strategy White Paper (DEA, 2011). The NDC commits to limiting emissions to a range between 398 and 614 Mt CO₂-eq, between 2025 and 2030. Known as the Peak, Plateau, and Decline trajectory (PPD), the goal is to peak emissions between 2020 and 2025, plateau for approximately a decade and decline in absolute terms thereafter (RSA, 2016). The National Climate Change Policy Framework thus extends the NDC commitment to 2050, with a goal to reduce emissions to between 212 and 428 Mt CO₂-eq in 2050 (DEA, 2011). The key finding of the NDC scenario is that South Africa can meet its NDC and mid-PPD primarily through decarbonising the electricity sector. The scenario results in 71% of electricity generated from wind and solar photovoltaic (PV) by 2050. There is substantial investment in gas capacity because of a conservative assumption that renewable energy cannot be considered firm capacity during the peak, though the gas plants contribute relatively less to electricity generated (14%).

r) Considering the role of coal in South Africa's economy, it should be noted that coal is an important foreign exchange earner. It accounts for approximately 12%

of the total merchandise exports from South Africa over the period 1993 to 2015 (CoM, 2016). The State benefits via taxes and royalties associated with coal mining. Coal royalties are approximately 18% of total mining royalties. The coal mining sector employed around 77,000 workers in 2015. In comparison, the entire mining sector employed approximately 457,000 workers in 2016 (Chamber of Mines, 2016), out of a total employed workforce of 15.8 million people (StatsSA, 2017). Coal jobs therefore account for nearly 0.5% of the national workforce¹⁰.

s) According to the International Energy Outlook, forecast worldwide coal consumption remains roughly the same between 2015 and 2040 (about 160 quadrillion Btu), with decreasing consumption in China and the United States offsetting growth in India. China remains the largest single consumer of coal in 2040 (about 73 quadrillion Btu), despite a steady decline in the country's consumption over time. A slowing economy and plans to implement policies to address air pollution and climate change emphasises the decline over the projection period. India's coal consumption continues to grow by an average of 2.6% per year from 2015 to 2040, with the country surpassing the United States as the second-largest coal consumer before 2020.

t) In OECD countries, coal consumption declines by an average 0.6% per year over the period of 2015 to 2040 because of increasing competition from natural gas and renewables and only moderate increases in electricity demand. Africa, the Middle East and other non-OECD countries, are projected to gradually expand coal capacity and generation through 2040, but their use of this resource starts from a low base. Despite significant increases in coal consumption, coal's share in overall energy consumption in India is projected to decrease from 49% in 2015 to 43% by 2040, due in part to policies promoting renewable and nuclear-based generation.

Electricity

u) According to the World Energy Outlook (2018) report, electricity is the fastest-growing source of final energy demand, and over the next 25 years it continues to outpace energy consumption as a whole. The power sector now attracts more

⁷ 4th Quarter report on the development of new gas sources in South Africa and neighbouring countries

⁸ 4th Quarter report on the development of new gas sources in South Africa and neighbouring countries

⁹ http://www.researchandmarkets.com/research/s9wds5/global_liquefied

¹⁰ Coal transitions in South Africa Report, 2018



- investment than oil and gas combined – necessary investments as the generation mix changes and ageing infrastructure is upgraded
- v) According to forecasts, net electricity generation in OECD Europe is expected to increase slowly, by an average of 1.1% per year from 2015 to 2040, compared to the world average increase of 1.5% per year (International Energy Outlook, 2018). India's net electricity generation increases by an average of 3.2% per year over the same period, driven by strong industrial growth and policies to increase the availability of electricity in rural areas.
- w) The generation mix in OECD Europe changes considerably by 2040, with renewables and natural gas growing, coal remaining flat, and nuclear power and liquid fuels declining. Nuclear generation's share is expected to decline from around 25% in 2015 to less than 15% by 2040. This is a result of stated policies to either cap or phase out nuclear power, including those adopted in France, Germany, and Sweden. The use of natural gas electricity generation in OECD Europe does not expand until 2030, mostly because of the large increases in projected renewables generation. In OECD Europe, when natural gas begins to gain market share in 2030, it displaces nuclear power, coal, and renewable generation.
- x) The number of people without access to electricity declined from 1.7 billion in 2000 to 1.1 billion in 2016 and is forecast at 650 million by 2030 (World Energy Outlook, 2018). The remaining population without access becomes increasingly concentrated in sub-Saharan Africa as developing countries in Asia reach a 99% electrification rate, with universal access achieved by the mid-2020s in India and Indonesia (see Figure 3 below).
- y) The number of people without access to clean cooking falls, but only to 2.2 billion by 2030. According to the World Energy Outlook (2018) report, the greatest challenge in achieving universal access to electricity is providing access to people living in the most remote areas in sub-Saharan Africa. Although most of the access is done through generation from renewables, the grid expansion also has an important part to play.
- z) Universal access strategies should be diverse. Local conditions and practices need to be underpinned by firm political commitments with supportive and enabling regulatory frameworks; engagement with the private sector; appropriate financing options and investment; capacity building and close consultation from the outset with local communities, especially women (World Energy Outlook, 2017).
- aa) Globally the dependence on electricity is growing and society is becoming more and dependent on the use of electricity for the sustainability of life as they know it. Cities would not survive without electricity. Yet as this is taking place, there are growing concerns about the security of supply. Apart from all the normal reasons for this, there is a new threat that is attracting attention globally – cybersecurity and the vulnerability of the power system to cyber-attacks. This is a global problem and South Africa is not excluded. However, this is an area of regulation that has not yet been addressed.
- bb) Globally, the trend in renewable energy that is receiving the most attention from regulators is the installation of rooftop solar PV from a domestic customer point of view. This is putting a big dent in utility revenues and there are implications for regulators as well, among others:
- the sustainability of licensees;
 - restructuring of tariffs by licensees in response to Small-Scale Energy Generation;
 - tariff structures for feeding power onto the grid;
 - the network impact of these installations; and
 - control of quality of supply for other customers.
- The most difficult implication to deal with is the sustainability of the licensees. NERSA has addressed these issues in varying degrees, but it requires ongoing attention.
- ### 1.1.3. Continental Developments
- a) Sub-Saharan Africa accounts for almost 14% of the world's population, but only 4.5% of global primary energy demand [619 million tonnes of oil equivalent (Mtoe)]. According to latest statistics from the World Energy Outlook (2017)

report, the number of people without access to electricity in sub-Saharan Africa continues to decline, albeit slowly. Over 200 million people have gained access since 2000, less than the overall population increase. As a result, there remain more than 600 million people without access, despite an increase in the access rate of 20 percentage points to 43%.

- b) Furthermore, recent efforts have been uneven, with around 60% of the progress seen since 2011 concentrated in just four countries (Kenya, Ethiopia, Tanzania and Nigeria), which together account for only 31% of the population without electricity access in sub-Saharan Africa. In Kenya, the access rate has increased by over 65 percentage points in 2000, to 73% today, and the Last Mile Connectivity Project aims to deliver universal access by 2022. In Ethiopia, electricity now reaches 45% of the population compared with 5% in 2000. The National Electrification Programme, launched in 2017, outlines a plan to reach universal access by 2025, aiming to reach 35% of the population with off-grid solutions.
- c) In South Africa, while the current electrification rate is relatively high (84%) it has been declining since 2014, in large part because electrification in urban areas has not kept pace with migration from rural areas.
- d) Energy demand in sub-Saharan Africa is very low. However, there are several factors pointing towards potentially rapid and prolonged growth in demand: strong economic expansion; increasing urbanisation; industrialisation and modernisation; a burgeoning middle class in many countries; as well as a legacy of unmet energy demand. The sub-Saharan Africa energy system is expected to expand rapidly by 2040 and so do the demands placed upon it. According to the World Energy Outlook Report (2018), the sub-Saharan Africa economy will quadruple in size, the population will nearly double (to 1.75 billion) and energy demand grows by around 80% by 2040. The capacity and efficiency of the system improve, and access to modern energy services grows, but many of the existing energy challenges are only partly overcome.

- e) Bioenergy demand will increase by 40% in absolute terms by 2040, exacerbating stress on the forestry stock. However, the share of bioenergy in the energy mix declines from above 60% to below half and the share of modern fuels edges higher. Oil demand will more than double to 4 million barrels/day (Mb/d) in 2040 [(over 0.5 Mb/d is the residential use of Liquid Petroleum Gas (LPG) and kerosene] and becomes the second-largest fuel in the mix, overtaking coal. Natural gas use grows by nearly 6% per year, to reach 135 bcm.
- f) According to BP, Africa will have the highest Compound Annual Growth Rate ('CAGR') for oil and gas consumption over the next 20 years while having the lowest existing energy consumption base¹¹. There is an urgency to address the current and future power supply, transmission and distribution needs. Therefore, the proven nature of Open Cycle Gas Turbines (OCGT) and Combined Cycle Gas Turbines (CCGT) technology coupled with the increased global volumes of LNG and potential for subdued future prices appear to offer an opportunity for African gas to power to grow. Africa has significant natural gas reserves, with increasing numbers of countries joining the list of countries that have discovered resources. For countries lacking domestic gas today, importing LNG for gas to power projects has become feasible due to the reason that there is an increase in countries that have discovered natural gas.
- g) The sub-Saharan Africa power system is expanding rapidly, with generation capacity quadrupling to 385 GW. The power mix becomes more diverse, with coal (mainly South Africa) and hydropower (all regions), being joined by greater use of gas (Nigeria, Mozambique, Tanzania), solar (notably in South Africa and Nigeria) and geothermal (East Africa). The share of renewables in total capacity more than doubled to 44%. The total power sector investment averages around \$46 billion per year, with just over half of it in transmission and distribution.
- h) Oil production will rise above 6 Mb/d by 2020, but will then taper off to 5.3 mb/d in 2040. Nigeria and Angola remain the dominant producers, although Uganda and Kenya are expected to ramp up oil output in the 2020s. Gas production will rise to 230 bcm in 2040, led by Nigeria, and there will be an

¹¹ PwC (2018). Staking on tomorrow: Africa oil and Gas review report

¹² "1st phase of Zohr gas field about to be finished: Min." Egypt Today, January 2018

¹³ IGU World Gas LNG Report – 2018 Edition, 27th World Gas Conference Edition



expansion of the output from Mozambique (60 bcm in 2040), as well as Angola and Tanzania (each 20 bcm). Coal supply is expected to grow by 50% to reach 325 Mtoe, still concentrated in South Africa, but joined increasingly by Mozambique and others. Sub-Saharan energy exports are drawn increasingly towards Asian markets. Crude oil net exports will decline to just over 3.8 Mb/d by 2040, partly due to a greater share being refined and consumed domestically. Rising gas output from Mozambique and Tanzania will bring sub-Saharan LNG export towards 100 bcm by 2040 (around 17% of inter-regional LNG trade), and Mozambique joins South Africa as a key coal exporter.

- i) Furthermore, sub-Saharan Africa makes only a small contribution to the global energy-related CO₂ emissions. It is envisaged that it will account for a mere 3% of the total in 2040, but is on the front line when it comes to the potential impacts of a changing climate. In particular, hydropower prospects can be affected by changing patterns of rainfall. The fuelwood and charcoal sectors operate largely outside the formal economy, meaning that policymakers have few levers to promote more sustainable forestry.
- j) Sub-Saharan Africa is rich in energy resources, but very poor in energy supply (International Energy Agency, 2017). The political instability in Sub-Saharan Africa limits the realisation of future gas infrastructure. A clear and comprehensive plan is needed to attract Foreign Direct Investment (FDI) into a country's gas sector.
- k) Natural gas resource-holders can power domestic economic development and boost export revenues, but only if the right regulation, prices and infrastructure are in place. The incentives to use gas within sub-Saharan Africa are expected to grow as power sector reforms and gas infrastructure projects move ahead. International Energy Agency, (2017) predicts that natural gas will nearly triple its share of the energy mix in Africa to 11% by 2040.
- l) Sub-Saharan Africa has 221.6 trillion cubic feet of proved natural gas reserves. The Middle East has almost 13 times that amount and Eurasia has almost 10 times that amount. Sub-Saharan Africa produced 1.69 trillion cubic feet of natural gas in 2011, accounting for 1% of total global natural gas

production. Natural gas production in Sub-Saharan Africa grew by an annual average of 10% over the past ten years. The growth was led by Nigeria, Equatorial Guinea, and Mozambique. Nigeria produces around two-thirds of the region's natural gas. The largest gas discovery was made in Egypt in the Zohr field with more than 30tcf of gas, which is located within the offshore Shorouk Block. Over the next year or two, Egypt plans to bring online all four trains of the first phase of Zohr, as well as expanding operations at the Abu Qir acreage and starting up the Atoll project and Phase 9B of the West Delta Deep Marine project¹².

- m) Sub-Saharan Africa exports about 1.22 tcf of natural gas and LNG via pipeline. Nigeria, Equatorial Guinea, and Mozambique are the only sizable natural gas exporters in the region. Angola joined the group in 2013 when it began exporting LNG. According to the IGU (2019) report¹³, several new gas projects came online in Algeria, leading to an increase of 0.8 MT to reach 12.4 MT of exports, which is the country's highest since 2014.
- n) The African Energy market has a required energy investment of US\$65 to US\$90 billion, with actual current investment at US\$23 billion. This translates to a funding gap of between US\$40 and US\$60 billion. To address this issue, the African Development Bank (AFDB) has since established a new fund for energy that is aimed at achieving universal access to energy by 2025. It envisages 200 million connections and doubling the continent's generation capacity by 2025. The AFDB fund aims to increase new off-grid connections by 130 million, new generation capacity by 160 GW and new clean cooking solutions by a further 150 million.

1.1.4. Regional Developments

- a) Energy is vital to development in the Southern African Development Community (SADC). Beyond its use in daily life, fuel and electricity catalyse infrastructure projects that drive both regional integration and economic growth. As the SADC region industrialises on its path to improved human development, energy production and distribution will only increase in importance. Recognising the fundamental role of energy in accomplishing its goals, the SADC passed the Protocol on Energy in 1996, which provides a

framework for cooperation on energy policy among SADC Member States.

- b) Since the adoption of the Protocol on Energy, the SADC has enacted several strategic plans for energy development in the region. Although implementation of these strategies has been slow, the region has made significant strides, particularly in electricity. At present, nine Member States of the SADC have merged their electricity grids into the Southern African Power Pool (SAPP), reducing costs and creating a competitive common market for electricity in the region. Similarly, the SADC has established the Regional Electricity Regulatory Association (RERA), which has helped in harmonising the region's regulatory policies on energy and its subsectors.
- c) While the SADC is enacting a number of initiatives to address these issues, it has identified two chief points of focus, as follows:
 - Electricity Generation – Southern Africa has ample resources for electricity generation, though it occasionally lacks the capacity for development.
 - Hydropower and Renewable Energy – Renewable energy has grown in importance for both regional and global energy markets.
- d) In 2015, the SADC also launched the Industrialisation Strategy and Road Map for 2015–2063. Based on the Strategy and Roadmap, a SADC Industrialisation Action Plan had been drafted which covers how industrialisation should unfold; competitiveness; regional integration; cross-cutting issues; institutional arrangements; and the monitoring and evaluation process. The successful implementation of this roadmap is essential for socio-economic development in the region and will have a bearing on the activities undertaken by regulators – the energy requirements for meeting the regional growth targets of 4–7% per annum as part of the industrialisation process are expected to be enormous. There has also been cooperation by SADC Member States on the establishment of the SADC Centre for Renewable Energy, Energy and Efficiency (SACREEE) in Namibia and the Southern Africa Research and Documentation Centre, which will function as platforms for capacity building, distribution of energy-related information, and energy-related projects.
- e) The region is relatively well endowed with energy resources. The SADC region has vast energy potential from solar, wind, nuclear, hydro, thermal, gas and petroleum sources in several countries. However, biomass is by far the largest source of energy in most regional countries.
- f) Electricity, as the dominant source of energy in the region, is generated mainly through thermal or hydroelectric resources. The coal industry is the backbone of power generation in the region and a significant share of the resource is allocated for export. The region has a large reserve of low-cost hydroelectricity in the north [especially Inga Reservoir in the Democratic Republic of Congo (DRC)] and Kariba Dam on the Zambia/Zimbabwe border in the middle of the regional system, as well as large reserves of cheap coal in Botswana, Mozambique, South Africa and Zimbabwe.
- g) Natural gas is becoming more significant to the region's energy sector, as Mozambique, Namibia, South Africa and Tanzania are developing the natural gas fields in their respective countries. New natural gas discoveries by international oil companies in Mozambique and Tanzania during the past decade have ignited investor interest in this previously under-explored region. The nascent petroleum and gas sub-sector is however plagued by volatile prices. Although the region is endowed with some petroleum and gas resources, these are not directly available to the region due to either foreign commitments or the lack of the necessary infrastructure to exploit, process, store and distribute throughout the region.
- h) Furthermore, the region has some of the most significant known reserves of uranium. The mineral is being mined in Namibia and South Africa for use as fuel for nuclear power plants while exploration is underway in Botswana and Zimbabwe. Nuclear technology is included in the electricity sub-sector, but it must be demonstrated that nuclear power can be a safe electricity generation option and the confidence of the population and governments must be won to endorse nuclear energy deployment in the SADC region. Only South Africa has nuclear capacity, with tentative plans for a new nuclear programme.



- i) The region has great potential for renewable energy, including hydropower, which is already being utilised on a commercial scale. However, the necessary infrastructure for grid connection is poor. The prices for most renewable energy technologies are decreasing, but more must be done in the form of innovative financing. A key factor of the SADC energy sector is the fact that the region has faced an electricity deficit since 2007 due to a combination of factors that have contributed to a diminishing generation surplus capacity against an increasing growth in demand. In recent years, the sub-region has experienced a power deficit situation due to a number of reasons, including growing demand against limited expansion in generation capacity.

Electricity

- j) Although plans have been put in place to address the supply shortage by 2020, projects intended to address the shortage lag behind the deadline due to failure to package projects for funding, below-cost tariffs, poor project preparation, issues with Power Purchase Agreements (PPAs), and the absence of regulatory frameworks, among other constraints. Massive investment in generation, transmission and distribution infrastructure will be required to sustain the projected increase in power demand in the region. Between US\$93 billion and US\$212 billion is required for short and long-term projects to boost power supply by 2027.
- k) One of the most pressing constraints is the need to improve the transmission line capacity and strengthen the regional grid. Approximately 60–70% of the matched bids in the Southern African Power Pool cannot take place due to transmission capacity constraints. Eskom, for example, would be able to sell all of its 'excess' capacity to its northern neighbours if the transmission capacity existed.
- l) More than 24,000 MW of new generation capacity was commissioned between 2014 and 2017. A number of rehabilitation and new generation projects are being undertaken to address the generation supply gap. The SAPP Plan indicates that 57,000 MW would need to be commissioned in the next 20 years. The generation mix is expected to change in the future with more emphasis on

renewable energy particularly hydropower development. Currently, hydropower constitutes 21% of the generation mix, which will increase to at least 26% in the next 20 years. However, there is a need to diversify the energy source base in view of the experiences of Zambia and Zimbabwe, particularly in 2015, when hydropower generation dropped by nearly 40% due to low water levels in the Zambezi river and the Kariba Dam as a result of poor rainfall. This, therefore, calls for the prioritisation of solar and other renewable energy projects in line with the climate change efforts being pursued internationally.

- m) Nearly all the SAPP Member States have high solar penetration levels, which provide great potential and a meaningful contribution of solar energy to the current power deficit. The total renewable energy contribution is expected to rise to at least 35% of the regional energy mix by 2030.
- n) Renewable energy targets in the SADC region are provided in Table 4 below:



Table 4: Renewable Energy Targets in the SADC Member States¹⁴

Country	Sector/Technology	Target
Angola	Electricity access Renewable energy (small-scale) Hydropower Biofuels	Increase in renewable energy capacity of the following amounts by 2025: <ul style="list-style-type: none"> • Small hydro: 100 MW, with 60 MW for municipalities • Solar: 100 MW, with 10 MW off-grid • Wind: 100 MW • Biomass: 500 MW
Botswana	Energy access Renewable electricity Renewable energy	<ul style="list-style-type: none"> • 82 per cent access to modern energy services by 2016; 100 per cent access by 2030 • Capacity increases expected from REFIT programme (delayed) • 15 per cent renewable share in final energy consumption by 2036, but may increase to 20 per cent in 2017 Renewable Energy Strategy once approved.
DRC	Energy access (non-renewable energy-specific)	<ul style="list-style-type: none"> • 60 per cent overall energy access (not renewable-specific) by 2025 (from 9 per cent currently)
Lesotho	Grid extension (non-renewable energy-specific)	<ul style="list-style-type: none"> • Targets pending completion of Sustainable Energy Strategy 2018
Madagascar	Renewable electricity	<ul style="list-style-type: none"> • 85 per cent renewable share in electricity generation by 2030
Malawi	Electricity access Electricity efficient device Renewable energy Biofuels	By 2025/2030: <ul style="list-style-type: none"> • 30 per cent access to electricity (up from 9 per cent since 2010) • 100 per cent use of efficient cook stoves in off-grid households • 6 per cent renewable share in energy mix (up from 1 per cent) • Biofuels mandate of 20 per cent ethanol and 30 per cent biodiesel
Mauritius	Renewable electricity	<ul style="list-style-type: none"> • 35 per cent of electricity from renewables by 2025; generation shares of 17 per cent bagasse, 8 per cent wind, 4 per cent waste, 2 per cent solar, 2 per cent geothermal by 2025 (under review)
Mozambique	Renewable electricity	400 MW increase in installed renewable energy capacity by 2024, including: <ul style="list-style-type: none"> • Wind: 150 MW • Hydro: 100 MW large-scale, 100 MW small-scale • Solar: 30 MW • Biomass: 30 MW

¹⁴ SADC Renewable Energy And Energy Efficiency Status Report, 2018


Country	Sector/Technology	Target
Namibia	Renewable electricity	• 70 per cent renewable share in electricity generation by 2030
Seychelles	Renewable electricity	• 5 per cent renewable share in electricity generation by 2020; 20 per cent by 2030
South Africa	Renewable electricity Transport	• 21 per cent renewable share in electricity generation by 2030 • 17.6 GW solar capacity, 37.4 GW wind capacity by 2050 (IRP 2016)
Eswatini	Renewable electricity	• 60 MW of intermittent resources such as solar PV by 2030 • 50 per cent renewable share in energy consumption by 2030
Tanzania	Renewable electricity	• 5 per cent renewable share in electricity generation by 2030 (up from less than 1 per cent)
Zambia	Renewable access Biofuel	• 200 MW increase in renewable energy capacity by 2020
Zimbabwe	Electricity access Renewable energy Hydropower (small-scale) Biofuel	• 1,100 MW increase in renewable energy capacity by 2025; 2,100 MW increase by 2030 (16.5 per cent increase overall) • 2,400 GWh increase in renewable energy generation by 2025; 4,600 GWh increase by 2030 (26.5 per cent increase overall) • Note: targets are conditional on final approval by government.

o) In its bid to meet the rising demand of electricity, the SADC region is implementing several Generation and Transmission projects across the region. Some of the projects include the following:

- Zambia–Tanzania–Kenya Interconnector
- Mozambique–Malawi Interconnector and Namibia–Angola Interconnector
- Zimbabwe–Zambia–Botswana–Namibia Interconnector
- Mozambique–Zimbabwe–South Africa Interconnector

Petroleum and Gas

p) The SADC region is endowed with significant deposits of coal (and associated coal bed methane gas), crude oil, shale gas and natural gas. This optimal exploitation could potentially prove to be the ‘missing ingredient’ in terms of diversifying the region’s energy mix, reducing the cost of energy and improving its accessibility to the citizens of the region. It could also reduce carbon dioxide emissions, which are associated with advancing global warming and climate change. Natural gas is becoming more significant to the region’s energy sector as Angola, DRC, Madagascar, Mozambique, Namibia, South Africa and Tanzania develop natural-gas fields in their respective countries. Parallel to these developments,

countries endowed with coal resources, particularly Botswana, Mozambique, South Africa and Zimbabwe, are redoubling efforts to extract coal-bed methane gas on a commercial scale.

q) Investments in the oil and gas sector are rising, particularly in Angola, Mozambique and Tanzania due to the vast resources found in those countries. However, the sector is plagued by volatile prices, which have been uncharacteristically low in the past two years, thus generally discouraging investment.

r) The petroleum and gas industries in the region only exist in the national context with isolated underdeveloped regulatory systems where they do exist. The SADC region has no developed common frameworks aimed at facilitating the development of regional markets and integration of the petroleum and gas sectors within the region.

s) Presently, most Member States in the petroleum sector have no domestic fuel production capability, but import fuel from other Member States, at different standards. The fuel standards should be harmonised to allow the ease of movement of blended

fuels as well as biofuels as blending feedstock within the region. Furthermore, the issues around refinery and storage capacity in the region must be addressed to encourage intra-regional trade especially between the landlocked and coastal Member States.

- t) The projected demand for petroleum products/liquid fuels in the SADC region is expected to grow significantly in the period up to 2027. The projected growth in demand will have to be matched by the expansion of the necessary infrastructure for production, refinery, storage and pipeline/transport that goes with uninterrupted supply to the region.
- u) In 2009, SADC adopted a Framework on Sustainable Biofuels, which provides guidelines for production and development of biofuels. Some Member States are already blending bioethanol with petrol/gasoline, and producing biodiesel to optimise the utilisation of their natural resources while reducing the importation of fuel products. However, the success of this programme will also depend on the harmonisation of fuel specifications and standards in the region. Since 2015, the SADC has been advocating for the migration of the region towards low Sulphur fuels and the introduction of cleaner vehicles, since the use of high Sulphur fuel diesel is still common in the region.
- v) There are several ports to import product to South Africa, but the Port of Durban is deemed the port of entry. From there, the inland areas as well as a number of adjacent SADC countries are supplied. Matola in Mozambique is also an alternative supply route to the Mpumalanga and Gauteng provinces.
- w) NERSA regulates the petroleum infrastructure tariffs. The pricing regulation is administered by the Department of Mineral Resources and Energy (DMRE) [formerly the Department of Energy (DoE)].
- x) Only six countries have proven gas reserves, with Namibia being the only one with no gas production. The remaining SADC countries Lesotho, Madagascar, Malawi, Mauritius, Seychelles, Swaziland, and Zambia have no known reserves.

- y) The main producers of gas in the SADC region are Angola, Tanzania, DRC and Mozambique. Angola leads the region in deposits of gas and petroleum, while South Africa is rich in shale gas and coal-bed methane gas. Tanzania is emerging as a force in this sector as new discoveries of natural gas continue to be made along its Indian Ocean coast. Mozambique has also seen a rapid expansion of its gas industry since the commissioning of the 865 km-long gas pipeline from the Pande and Temane gas fields in south-central Mozambique to Secunda in South Africa by the multinational Republic of Mozambique Pipeline Investment Company (ROMPCO), headquartered in South Africa.
- z) The Rovuma area, in the far north of Mozambique near the Tanzanian border, has seen positive results of natural gas exploration. Between 150 to 200 trillion cubic feet of gas has been found offshore Mozambique's Cabo Delgado province and final investment decisions have already been made for two liquefied natural gas (LNG) projects, the most recent being Anadarko's Rovuma Area 1 Mozambique LNG project. The final capital estimate has not been made, but Anadarko has indicated that the project will involve two LNG trains with total yearly nameplate capacity of 12.88-million tons.
 - aa) Separately, the Italian Energy Group, Eni, is building the \$4.7-billion Coral South floating LNG facility, while Eni and ExxonMobil are making progress on an LNG project based on the Rovuma Area 4 block offshore, which will share infrastructure with Anadarko's project. Over the coming two decades, it is estimated that more than \$100-billion will be invested in the territory as a result of the gas projects and several countries, including Portugal, Brazil and France that are actively mobilizing their business communities around the opportunities associated with Mozambican LNG projects.
 - bb) State-owned freight logistics firm, Transnet, plans to launch a tender next year for South Africa's first terminal to import liquefied natural gas (LNG) at Richards Bay port, with first gas expected to land in 2024. The target source of gas for this project is LNG from Mozambique. For this project to be



successful, it is of vital importance for South Africa to secure the new gas supplies. Angola and Mozambique are potential LNG suppliers due to their shorter shipping distances, which would give South Africa advantage in securing relatively favourable delivered ex-ship prices.

cc) In addition, there is also an opportunity for South African companies to explore other business opportunities that will arise from the development of the three multibillion-dollar gas projects in Mozambique. The region in which these megaprojects are to be developed is both rural and remote, which means just about everything that is needed to support the projects, from ports and roads, to housing and retail developments, still has to be built. In other words, this is not only a game changing prospect for Mozambique, but also a significant business opportunity for South African companies, especially those willing to collaborate with local companies in line with Mozambique's localization requirements.

1.1.5. Economic Outlook

a) According to the South African Reserve Bank, South Africa's current domestic economic performance can be summarised as follows:

- South Africa's potential is significant, yet growth over the past ten years has not benefitted from the global recovery.
- The economy is globally positioned, sophisticated, and diversified.
- The following were identified as binding constraints to growth:
 - o policy uncertainty;
 - o the regulatory environment not being conducive to investment; and
 - o there is no sustained long-term partnership/cooperation between government, business and labour (Social Compact).
- A recent World Bank Study (2018)¹⁵ on South Africa reveals that it is one of the most unequal economies in the world, with consumption inequality having increased since 1994. Wealth inequality is high and has been rising over time.
- Currently, more than 50% of the population lives in poverty and the economy is not generating sufficient jobs, with 29% of the labour force being unemployed.

- According to statistics from StatsSA, investment as a percentage of GDP has been declining since 2014. The total investment is now at 19.4% of the GDP, down from 23.5% in 2009.

b) South Africa's per capita growth rate is currently just above 1%, alongside Colombia with 1.8%, Chile with 1.5%, Brazil with 1.1% and Venezuela with -3.9 (2014 data). Among the highest per capita growth rate in 2018 is China with 6.9%, Malaysia with 5.9% and Indonesia with 5.1%.

c) Real GDP growth in South Africa is expected to remain below 2% through 2019. However, this is not sufficient to make a meaningful dent in unemployment, poverty, and inequality. Global events, including the Eurozone debt crisis (2010–2012) and weak commodity prices (2014–2015) have contributed to the poor domestic growth performance since 2010. However, at least since 2012, a worsening domestic political, policy and socioeconomic climate ensured that SA was unable to benefit fully from the more recent broad-based improvement in global growth and rebound in key commodity prices. Year-on-year, economic growth improved slightly from 0.6% in 2016 to 1.3% in 2017. However, there was a slight dip in 2018 with 0.7% growth recorded.

d) The average annual consumer price inflation (CPI) was 4.7% in 2018, down from 6.4% in 2016 and 5.3% in 2017. CPI has averaged 5.4% over the past five years, which is in line with the South African Reserve Bank inflation target range. After averaging below 5% in 2018, headline CPI inflation is projected to average of 5.06% during the period of 2019-2023 (BER 2019). This implies that CPI will remain stuck at the lower end of the South African Reserve Bank's (SARB) inflation target band.

e) The petrol price has increased considerably over the years, with a percentage change of 13.00% in 2018 up from 8.1% in 2017 and 1.4% in 2016. This petrol price is still expected to increase over the coming years, starting with a decrease of approximately 1.2% in 2019. Cumulatively, the 2018 petrol price has increased with 106.2% since 2007 and is expected to continue increasing to 118.2% in 2023.

1.1.6. Impact of BRICS on the Energy Sector

- a) The establishment of the New Development Bank (BRICS Bank) has highlighted its main funding areas as sustainable development and sustainable infrastructure among BRICS countries (Brazil, Russia, India, China and South Africa) and other strategic developing countries (especially in Africa). One of the focus areas of the Bank is to scale up low carbon and climate-resilient investments for sustainable infrastructure, including in particular speeding up the energy transition consistent with the Paris Agreement. The envisaged approach to this is aligning their financial flows with the countries' pathways to low carbon and climate resilient development, increasing the predictability and ease of access to concessional resources, such as the Green Climate Fund, and leveraging private finance for climate investments.
- b) Most of the Bank's projects involve green energy or infrastructure. According to the Bank, between 1 and 1.5 trillion US dollar is needed to fully harness renewable energy among the trading bloc. The bank approved two infrastructure projects with a loan value of US\$413.8 million during the 12th Board of Directors meeting in Shanghai on November 2017. Non-resident portfolio flows into BRICS nations rose to \$166.5 billion in May 2017, up from \$28.3 billion in outflows 12 months prior, according to data compiled by the Institute of International Finance and EPFR Global. The bank sold its first 3 billion (\$437 million) yuan-denominated bonds in China in July 2017, to fund clean energy projects in member states.
- c) The BRICS Bank has 25 projects at various stages of preparation for 2018 to 2019, with a total lending amount of \$6 billion. Three of these projects are in South Africa and include the Greenhouse Gas Emissions Reduction and Energy Sector Development Project (US\$300m), Durban Container Terminal Berth Reconstruction Project (US\$200m) and Eskom Renewable Energy (Transmission) project (US\$180m).
- d) Between 2003 and 2017, BRICS has invested about US\$3383m in 11 South African Energy projects. This investment translated to 809 jobs created (Deloitte, 2018). However, in January 2018 an agreement was signed between the Russian state energy company Rosatom and the South African gov-

ernment to construct small hydropower plants in Mpumalanga to power rural regions of the country. This is a key component of South Africa's energy security strategy. Each mini hydropower plant is expected to power 250 to 400 houses. This project could be the first of several small hydro projects aimed at generating innovative and affordable energy in South Africa and across the continent.

1.1.7. National Environment

Electricity

- a) There is currently no annual growth in electricity demand – there has not been for the last 10 years and there is no sign of that changing. Eskom has 51 943MW of licenced capacity and the renewable licenced capacity is 6 592.7MW. In April 2018, the then Minister of Energy announced the signing of the agreements for the 27 projects procured under the Renewable Energy Independent Power Producer Procurement Programme (REIPPPP) Bid Windows 3.5 and 4. This is by far the biggest Independent Power Producer (IPP) procurement by the Department of Energy to date, representing a total of R56 billion of investment and about 2300MW of generation capacity to be added to the grid over the next 5 years. This investment is injected into the economy by the private sector, with no contribution from Government other than support to Eskom in the event of a default by the buyer. The new projects are as detailed below:
 - 15 new wind, solar PV and concentrated solar power (CSP) projects, Northern Cape;
 - 4 new wind projects, Eastern Cape;
 - 4 new solar PV projects, North West;
 - 2 wind projects, Western Cape;
 - 1 a biomass project, Mpumalanga; and
 - 1 small hydro project, Free State.
- b) The Integrated Resource Plan (IRP) 2010–2030 estimated that South Africa would require over 40,000 MW of new generation capacity by 2025. The IRP 2018 was released in August 2018 and should provide clarity on the way forward as well as a predicted price path.



- c) The percentage of South African households that were connected to the main electricity supply increased from 76.7% in 2002 to 84.7% in 2018.
- Mains electricity was most common in Limpopo (92.7%), Northern Cape (91.7%), Free State (91.2%) and Mpumalanga (90.7%), and least common in Gauteng (77.7%), KwaZulu-Natal (83.5%) and North West (83.7%).
 - The largest increases between 2002 and 2018 were observed in Eastern Cape (36.7%), and Limpopo (21.6%).
 - The percentage of households with access to mains electricity actually declined in Gauteng (12.2%) and Western Cape (0.68%). These declines can be associated with the rapid in-migration experienced by these provinces.

Petroleum and Gas Sector

- d) Inputs of petroleum products play an important role in transport and production activities of various other sectors of the South African economy. However, South Africa does not have its own economically extractable natural crude oil resources, therefore, South Africa relies on imports of crude oil and refined fuels to meet its liquid fuels needs.
- e) Approximately 11 142 million litres of petrol and 12 539 million litres of diesel were consumed in South Africa in 2018 representing a decrease of 0.28 per cent and an increase of 3.12 per cent respectively compared to 2017 (DoE, 2018). More illuminating and power paraffin was consumed in 2018 than in 2017, with 702 million litres and 648 million litres consumed respectively. This represents a 7.69 per cent increase in paraffin consumption. Approximately 552 million litres of furnace oil were consumed in 2018, representing a 5.25 per cent increase from consumption in 2017. Furthermore, there was a decrease of 9.32 per cent in the consumption of LPG, with 504 million litres and 551 million litres being consumed in 2018 and 2017 respectively.
- f) The majority of South Africa's refinery output is transported via pipeline, but product is also uplifted directly using road, or transported by rail, to other distribution facilities. The Transnet Pipelines Division operates the main liquid petroleum pipeline system running between Durban and the inland region, comprising the Multi-Product Pipeline (MPP) and the crude oil pipeline to Sasolburg servicing the NATREF

refinery. It then extends into the northern network with delivery depots in Gauteng (Alrode, Langlaagte, Waltloo, OR Tambo International Airport, Tarlton), North West (Klerksdorp, Rustenburg) and Mpumalanga (Witbank) as well as Free State (Kroonstad). The MPP has a coastal accumulation facility as well as an Inland Accumulation facility. At each of these, as well as at the aforementioned delivery depots, the various NERSA licensees have storage facilities interconnecting to the pipeline system. In the eight national ports, there are also marine loading facilities interconnecting to the coastal refineries and/or storage facilities located within or adjacent to the ports. In the inland areas, the storage facilities are mainly replenished by road or rail. In total, NERSA has issued licences to operate 194 storage facilities, 23 marine loading facilities and 19 pipelines to 59 licensees. As of 31 March 2018, TPL has stopped injecting petroleum products into the Durban-to-Johannesburg Pipeline (DJP) and this pipeline will be decommissioned. In an effort to alleviate the supply burden resulting from demand growth, there were plans to build a 300 000 boe/d refinery located in the Eastern Cape Province called 'Project Mthombo'. However, the Government recently announced new plans for the refinery to be located in Richards Bay. Current refinery operators are reluctant to expand present capacity due to the high investment cost involved in meeting cleaner fuel standards while there is a surplus of liquid petroleum products available in the international market. Nonetheless, South Africa's refineries are well placed on a cash operating basis within its regional peer group (European and African countries that have more than one refinery), indicating their current competitive situation relative to these other manufacturers.

- g) Total made a significant gas condensate discovery after drilling its Brulpadda prospects on Block 11B/12B in the Outeniqua Basin, offshore South Africa. The area is 175km off the southern coast of South Africa. The estimated gas reserves are in the range of 56 million cubic meters, of which around 450 million cubic meters can be recovered¹⁶.

¹⁵ World Bank (2018). Overcoming poverty and inequality in South Africa: An assessment of drivers, constraints and opportunities.

¹⁶ Report on Development in New Gas Sources in South Africa and Neighbouring Countries for a period of April-June 2019

Gas-to-Power procurement programme

- h) In order to support the implementation of the Integrated Energy Plan, the DMRE is currently finalising the Gas Utilisation Master Plan (GUMP) for South Africa. The GUMP would act as a roadmap for the development of the gas industry in the South African economy. It analyses the potential and opportunity for the development of South Africa's gas economy and sets out a path of how this could be achieved. One of the main objectives is to enable the development of indigenous gas resources and to create the opportunity to stimulate the introduction of a portfolio of gas supply options.
- i) The key challenges in the sector are to bring gas demand and supply on stream at the same time and spread geographically to stimulate broader localised demand. Without local demand, it would be difficult to develop distributed gas supply and without such distributed gas supply, it would be difficult to develop local gas demand. One way of overcoming this challenge is to develop a Gas-to-Power Programme. This would potentially anchor gas demand while creating a long-term sustainable gas demand. The intention of the Gas-to-Power Programme is not only supplying power, but also supplying a limited amount of gas, marketed in the form of a Gas Supply Agreement (GSA), for use by industrial and other users.
- j) The Gas-to-Power Programme has stalled until the completion and publishing of the Integrated Energy Plan (IEP) and the updated Integrated Resource Plan.

Regulated Energy Industry

- k) Energy is at the core of current and future industrial and technological development. The National Development Plan envisages that the country will have an energy sector that promotes economic growth and development through adequate investment in energy infrastructure by 2030. Furthermore, the plan envisages that South Africa will have an adequate supply of electricity and liquid fuels to ensure that economic activity and welfare are not disrupted and that 95% of the population will have access to some form of energy.

- l) NERSA has commenced with a process to determine the size of the NERSA-regulated activities within the energy sector (Electricity, Piped-Gas and Petroleum Pipelines).

- The Energy Regulator has seen a rapid increase in the number of operational licensees over the 2014 to 2018 period with the exception of 2017 to 2018, where a significant decrease occurred in the electricity distribution space. Currently, there are 367 licensees operating under the regulation of the Energy Regulator. The bulk of these licensees are in the Electricity sector, followed by the Petroleum Pipelines and Piped-Gas sectors respectively.
- In particular, electricity generation has seen a rapid increase in licences issued since the implementation of the DMRE's REIPPPP that was officially launched in 2011. Between 2014 and 2018, an additional 31 licensees were licensed (13% increase)
- In 2017, a decrease of 11 licensees (-5.8%) occurred due to mergers of 26 distribution licensees into 12. Of the 26 merged licensees, four (Indaka, Imbabazane, Ezingoleni and Khara Hais) were under Eskom Distribution.
- The Petroleum Pipelines industry's regulated facilities had a regulated capacity of 16,764,237 m³ transported by pipelines, 12,014,534 m³ in storage facilities and 16,173,861 MT in loading facilities in 2017. Of particular interest is the storage sub-sector, which saw a 12% increases in regulated facilities from 2014 to 2015. There was a slight decline from 2015 to 2016, due to the implementation of the bulk determination by the Regulator.
- The Petroleum Pipelines industry's regulated facilities had a regulated capacity of 22,127,097 m³ transported by pipelines in 2018, 12,329,854 m³ in storage facilities and 16,177,014 MT in loading facilities. Of particular interest is the storage sub-sector, which saw a 12% increases in regulated facilities from 2014 to 2015. There was a slight decline from 2015 to 2016, due to the implementation of the bulk determination by the Regulator.
- With regard to the Electricity sector, there are 131 regulated facilities, of which 30 are owned by Eskom, 16 by general IPPs, 78 by renewable IPPs and 7 by municipalities. This jointly represents 61 074.90MW of electricity generation in the country. There is a 15.48% decrease in the number of regulated facilities from 2017. Interestingly, IPPs combined represent 94 facilities with a capacity of 8 593MW in 2018. This represents an



- increase of 2.76 per cent of electricity added to the national grid since 2017.
- In addition, as per the Gas Act, the Energy Regulator is mandated to register certain gas activities in order to keep abreast of key developments in the gas industry. As of 2018, 118 biogas facilities and 35 biogas registrants are registered with the Energy Regulator.
- m) There is a significant amount of energy assets in operation under the ambit of the Energy Regulator. As of 2018, there are R830.020 billion worth of operational assets under regulation, with the Electricity industry being the dominant player representing 94.32%, and 4.56% and 1.11% for Petroleum Pipelines and Piped-Gas respectively.
- n) The energy sector is undergoing major reforms with the construction of a number of projects that will add significant amounts of capacity in the short term. As of 2018, there are R430 180 billion assets under construction, of which R146 896 billion assets are in the Electricity sector, R265million in Petroleum Pipelines and R18 283 million in Piped-Gas. The electricity sector's construction projects include the approved DoE REIPPPP projects and Eskom power projects. IPPs, in particular, have investment projects worth R66.478billion (45.2%) and Eskom, through its new build programme, accounts for R80 418billion (54.7%), with projects such as Medupi and Kusile power stations still under construction. It should be noted that some of these projects are nearing completion and will be adding significant amounts of electricity to the South African power grid.

1.1.8. PE(R)STEL factors analysis

The specific factors considered in the environmental scan are shown in the tables below.

Table 5: Political factors

Political factors	Impact if factor is not addressed	NERSA response to the factor
Electricity Industry Regulation		
1. Electricity distribution by municipalities	<ul style="list-style-type: none"> Continued price diversion between Eskom and municipalities Key national programmes will be undermined Quality of supply compromised Undermine service delivery 	<ul style="list-style-type: none"> Continued regulatory advocacy and engagements, also focusing on the approval of municipal tariffs
2. Municipalities' executive authority for funding of municipal infrastructure	<ul style="list-style-type: none"> Some municipalities are unable to fund, build, operate and maintain adequate infrastructure – which has a negative impact on security of supply 	<ul style="list-style-type: none"> Allow tariffs that reflect cost of supply and to include funding for infrastructure
Piped-Gas Industry Regulation		
1. Delays in finalisation of legislative amendments and developments (with specific reference to the Gas IPP and the Gas Utilisation Master Plan)	<ul style="list-style-type: none"> Cost of gas may be too high It may deter / delay entry into the gas market 	<ul style="list-style-type: none"> Prepare a report on regulatory advocacy and engagements with relevant policy makers
2. Lack of policy on gas infrastructure investment	<ul style="list-style-type: none"> Uncertainty for investment Lost opportunity to encourage competition in piped-gas industry Impedes growth of the gas market in SA It may deter / delay entry into the gas market 	<ul style="list-style-type: none"> Continued regulatory advocacy and engagements with relevant policy makers Advocate the development of the Gas Utilisation Master Plan, Gas IP, Gas Infrastructure Plan



Political factors	Impact if factor is not addressed	NERSA response to the factor
Piped-Gas Industry Regulation		
4. Regulating the gas market – bundled and unbundled approach to LNG projects	<ul style="list-style-type: none"> • May deter infrastructure investments • Regulatory uncertainty 	<ul style="list-style-type: none"> • Develop a NERSA position paper on regulating the gas market – bundled and unbundled • Continued regulatory advocacy and engagements with relevant policy makers • Revisit the Gas Rules
5. Alignment of Gas Infrastructure Plan, the IRP and IEP	<ul style="list-style-type: none"> • Possible duplication or contradictions • Regulatory uncertainty 	<ul style="list-style-type: none"> • Continued regulatory advocacy and engagements with relevant policy makers
Petroleum Pipelines Industry Regulation		
1. Geo-political upheavals impacting on petroleum producing transient countries	<ul style="list-style-type: none"> • Higher and volatile fuel prices • Rand/dollar exchange rate volatility 	<ul style="list-style-type: none"> • Regulatory advocacy on price regulation by the DMRE • Participate in fuel price policy and regulatory framework reviews • Participating in regional structures dealing with petroleum matters
2. Neighbouring countries finding alternative sources of fuel	<ul style="list-style-type: none"> • Low tariffs through the NMPP and concomitant high tariffs • Threats to security of supply 	<ul style="list-style-type: none"> • Monitor interventions by Transnet to increase the volumes • Regulate in a manner that promotes immigration from pipelines to other modes of transport • Participate in supply managers forums and other security of supply committees • Continued regulatory advocacy
3. Decline in investment friendliness of South Africa	<ul style="list-style-type: none"> • Further large-scale investments in petroleum infrastructure (and demand sectors) slows down. • Petroleum Infrastructure may not be sufficient to meet future demand • Decline in fuel demand which can lead to higher tariffs and/or stranded assets 	<ul style="list-style-type: none"> • Adjust regulatory framework to attract investments • Continued regulatory advocacy and engagements with relevant policy makers to ensure efficiencies • Identify and implement key measures to improve regulatory certainty through consistent and defendable decisions, based on world-class regulatory frameworks, methodologies and mechanisms • Regulate in a manner that promotes competition

Political factors	Impact if factor is not addressed	NERSA response to the factor
Transversal Regulatory and Organisational		
1. Developmental State	<ul style="list-style-type: none"> Decisions of NERSA could be in conflict with policy 	<ul style="list-style-type: none"> Continued regulatory advocacy and engagements with relevant policy makers
2. Manage interface between different policy thrusts of Government (new growth path, IPAP2)	<ul style="list-style-type: none"> Decisions of NERSA could be in conflict with policy 	<ul style="list-style-type: none"> Make decisions that are not in conflict with the Acts Develop and implement a strategic engagement framework on developing legislation/policy changes
3. Policy gaps and inconsistencies	<ul style="list-style-type: none"> Regulatory uncertainty Lack of credibility of regulatory systems 	<ul style="list-style-type: none"> Review impact on NERSA's mandate Continued regulatory advocacy and engagements with relevant policy makers Develop a report on the cost of projects, the impact and implications thereof e.g. Integrated Resource Plan
4. Discussion/debate around nationalisation	<ul style="list-style-type: none"> Uncertainty for investment 	<ul style="list-style-type: none"> Identify and implement key measures to improve regulatory certainty through consistent and defendable decisions, based on world-class regulatory standards, procedures and processes
5. Review of Sustainable Development Goals	<ul style="list-style-type: none"> NERSA may not assist the country in achieving its goals 	<ul style="list-style-type: none"> Regulate in such a manner that accessibility and affordability is enhanced



Table 6: Economic factors

Economic factors	Impact if factor is not addressed	NERSA response to the factor
Electricity Industry Regulation		
1. Lack of competition in electricity supply industry	<ul style="list-style-type: none"> Impact on the ability of the Independent Power Producers to access the industry High electricity prices to industrial consumers 	<ul style="list-style-type: none"> Enforce Third-Party Access through regulatory decisions Amend the dispatch rules to include balancing rules Continued regulatory advocacy and engagements with relevant policy makers
2. Electricity Price to commerce in the municipalities has reached a critical level	<ul style="list-style-type: none"> Commerce and industry closing down 	<ul style="list-style-type: none"> Develop a discussion document on tariffs in municipalities, focusing on, among others: <ul style="list-style-type: none"> Influencing tariff structures Determining whether the actual application of tariffs yields expected result.
3. Inter-dependency of SADC on SA economy	<ul style="list-style-type: none"> SADC countries' power plans not realised 	<ul style="list-style-type: none"> Contribute through regional structures towards the realisation of SADC countries' power plans Review NERSA's role in international trade
4. Low and slow growth of the GDP	<ul style="list-style-type: none"> Depressed economy leading to less disposable income, which in turn would result in an increase in bad debt and an ESI that is not economically viable. 	<ul style="list-style-type: none"> Ensure that electricity price increases are kept to the minimum by enforcing efficient licensee operations and ensure that propoor regulation is strengthened
5. Credit worthiness of State-Owned Entities (SOEs)	<ul style="list-style-type: none"> Impact on infrastructure investment due to higher cost of debt and inability to issue bonds Higher tariffs 	<ul style="list-style-type: none"> Regulate in a manner that drives efficiency Set credit rating criteria in the MYPD methodology
6. Drought – water infrastructure	<ul style="list-style-type: none"> Water restrictions 	<ul style="list-style-type: none"> Review the efficient management of water resources in generation of electricity

Economic factors	Impact if factor is not addressed	NERSA response to the factor
Piped-Gas Industry Regulation		
1. Lack of competition in gas industry	<ul style="list-style-type: none"> Barrier to competitive outcomes (key barriers including lack of gas supplies and infrastructure to enable such supplies)) Likely perpetuation of current monopoly in the industry 	<ul style="list-style-type: none"> Continued regulatory advocacy and engagements with relevant policy makers to facilitate entry Enforce Third-Party Access through regulatory decisions Review and implement Maximum Prices Methodology and Tariff Guidelines
2. Lack of infrastructure investment	<ul style="list-style-type: none"> No growth in the gas market Lack of gas import infrastructure Lack of entry of new gas suppliers 	<ul style="list-style-type: none"> Develop a regulatory advocacy report to the DMRE and IPPs regarding gas-to-power procurement programme Continued advocacy with policy makers to expedite finalisation of Gas Masterplan and alignment of IEP, IRP and Gas Infrastructure Plan
3. Economic growth stagnation	<ul style="list-style-type: none"> Barrier to competitive outcomes (key barriers including lack of gas supplies and infrastructure to enable such supplies)) Likely perpetuation of current monopoly in the industry 	<ul style="list-style-type: none"> Continued advocacy with policy makers
4. Lack of indigenous gas sources	<ul style="list-style-type: none"> No growth in the gas market Lack of gas import infrastructure Lack of entry of new gas suppliers 	<ul style="list-style-type: none"> Continued research and monitoring of developments in new gas sources Develop and maintain gas trade relations with neighbouring countries. Explore prospects for LNG imports
5. Gas industrialisation campaign	<ul style="list-style-type: none"> Ineffective regulation of the gas market 	<ul style="list-style-type: none"> Continued regulatory advocacy Undertake intergovernmental engagements



Economic factors	Impact if factor is not addressed	NERSA response to the factor
Piped-Gas Industry Regulation		
6. Gas supply certainty – Sasol Gas indicated in FY19 that it expects its gas fields to start declining in 2023	<ul style="list-style-type: none"> Sasol Gas may not be able to meet supply obligations going forward May jeopardise existence and growth of the gas industry. 	<ul style="list-style-type: none"> Engagements with relevant stakeholders, including inter alia Sasol Gas, the Industrial Gas Users Association –Southern Africa regarding the viability of potential new sources of supply Gather data from Sasol Gas in terms of S28 and Regulation 9 of the Gas Act, in terms of which Sasol is expected to provide information on its gas reserves Continued regulatory advocacy and engagements with relevant policy makers to facilitate the entry of new gas suppliers, and the development of infrastructure to enable such supplies
Petroleum Pipelines Industry Regulation		
1. Low economic growth in South Africa	<ul style="list-style-type: none"> Reduced demand for liquid fuel Further large-scale investments in petroleum infrastructure will stop. Petroleum Infrastructure may not be sufficient to meet future demand 	<ul style="list-style-type: none"> Identify and implement key measures to improve regulatory certainty through consistent and defensible decisions, based on world-class regulatory standards, procedures and processes.
2. HDSA and B-BBEE participation	<ul style="list-style-type: none"> No third-party access to storage facilities Non-transformed petroleum pipelines industry Social upheavals 	<ul style="list-style-type: none"> Participate in Charter Counsel Develop and implement a strategic engagement framework on transformation
3. Importation of fuels via trucks through other ports of entry into South Africa	<ul style="list-style-type: none"> Lower volumes through pipelines leading to higher tariffs. Disruption of regulatory framework 	<ul style="list-style-type: none"> Monitor developments in this regard Continued regulatory advocacy
Transversal Regulatory and Organisational		
<ul style="list-style-type: none"> Impact of environmental levies and the Carbon Tax Act on prices 	<ul style="list-style-type: none"> Impossible to facilitate achievement of affordable energy services 	<ul style="list-style-type: none"> Develop a position paper on the impact of environmental levies to policy makers
<ul style="list-style-type: none"> Manage interface between different policy thrusts of Government 	<ul style="list-style-type: none"> Decisions of NERSA could be in conflict with policy 	<ul style="list-style-type: none"> Make decisions that are not in conflict with the Acts Develop and implement a strategic engagement framework on developing legislation/policy changes

Economic factors	Impact if factor is not addressed	NERSA response to the factor
Transversal Regulatory and Organisational		
<ul style="list-style-type: none"> Downgrade of South Africa's credit status 	<ul style="list-style-type: none"> Capital flight (foreign and local) 	<ul style="list-style-type: none"> Identify and implement key measures to improve regulatory certainty through consistent and defendable decisions, based on world-class regulatory standards, procedures and processes.
<ul style="list-style-type: none"> Persistently low economic growth rate 	<ul style="list-style-type: none"> Cost of energy – impact on consumers 	<ul style="list-style-type: none"> Review tariffs to encourage manufacturing

Table 7: Regulatory factors

Regulatory factors	Impact if factor is not addressed	NERSA response to the factor
Electricity Industry Regulation		
1. Compliance monitoring and enforcement of licence conditions	<ul style="list-style-type: none"> Security and quality of supply Affordability and accessibility of electricity 	<ul style="list-style-type: none"> Continued regulatory advocacy and engagements with relevant policy makers, with specific reference to the need for effective punitive measures to be used for non-compliance
2. Information asymmetry	<ul style="list-style-type: none"> Possible incorrect decisions taken due to lack of all relevant information available 	<ul style="list-style-type: none"> Implementation of the Regulatory Reporting System for financial data and a Regulatory Reporting System for non-financial data
3. Insufficient coordination in regulating gas and electricity industries	<ul style="list-style-type: none"> Inconsistent policy messages deterring investment Incorrect signals sent to the market 	<ul style="list-style-type: none"> Strengthen internal coordination and strategic interactions with government structures Collaboration with other regulators to address regulatory asymmetry
4. Management of concurrent jurisdiction with other regulators or institutions	<ul style="list-style-type: none"> Regulatory overlap No clear roles and responsibilities Lack of cooperation may lead to delay in decision-making. 	<ul style="list-style-type: none"> Continued regulatory advocacy and engagements with relevant policy makers Develop and implement Memorandums of Understanding (MOUs) and Memorandums of Agreement (MOAs) with appropriate regulators or institutions



Regulatory factors	Impact if factor is not addressed	NERSA response to the factor
Piped-Gas Industry Regulation		
1. Light-handed approach of current regulatory framework and weak enforcement powers	<ul style="list-style-type: none"> • Security and quality of supply • Affordability and accessibility of electricity 	<ul style="list-style-type: none"> • Continued regulatory advocacy and engagements with relevant policy makers, with specific reference to the review of the Gas Act and the National Energy Regulator Act • Develop and implement MOUs with the appropriate regulators or institutions, focusing among others on reducing confusion and unnecessary regulatory burden and cost
2. Regulatory gaps and fragmentation of legislation (gas) (not regulating entire value chain)	<ul style="list-style-type: none"> • Possible incorrect decisions taken due to lack of all relevant information available 	<ul style="list-style-type: none"> • Report on regulatory advocacy and engagements regarding provisions/ measures to be included in the Gas Amendment Bill
3. Lack of experience in regulating new activities (e.g. LNG, Shale gas, FSRU, regasification)	<ul style="list-style-type: none"> • Inconsistent policy messages deterring investment • Incorrect signals sent to the market 	<ul style="list-style-type: none"> • Develop the rules, norms and standards for the regulation of the new activities • Develop and implement a skills gap analysis and appropriate training for staff in regulating new activities
4. Information asymmetry	<ul style="list-style-type: none"> • Regulatory overlap • No clear roles and responsibilities • Lack of cooperation may lead to delay in decision-making. 	<ul style="list-style-type: none"> • Develop and implement an appropriate method of ensuring the collection of accurate data • Implement the Regulatory Reporting Manuals to overcome information asymmetry
5. Concurrent jurisdiction regarding the regulation of gas	4. Information asymmetry	<ul style="list-style-type: none"> • Development and implementation of MOUs and MOAs with regulators with concurrent jurisdiction
6. Gaps and inconsistencies between regulations and the Act	4. Information asymmetry	<ul style="list-style-type: none"> • Continued regulatory advocacy and engagements with relevant policy makers
7. Cross-border regulation and harmonisation of processes, methodologies and procedures	4. Information asymmetry	<ul style="list-style-type: none"> • Continued engagement with INP to harmonise regulatory processes. • Finalise and implement MOU with Mozambique regarding sharing of information and mutual co-operation on regulatory matters

Regulatory factors	Impact if factor is not addressed	NERSA response to the factor
Piped-Gas Industry Regulation		
8. Complementary jurisdiction misalignment in application of policy objectives	<ul style="list-style-type: none"> Regulatory and investment uncertainty 	<ul style="list-style-type: none"> Continued regulatory advocacy and engagement in with relevant policy makers Develop appropriate MOUs
Petroleum Pipelines Industry Regulation		
1. Concurrent and complementary jurisdiction	<ul style="list-style-type: none"> Security and quality of supply Affordability and accessibility of electricity 	<ul style="list-style-type: none"> Harmonise regulatory methodologies (internally and externally) Continued regulatory advocacy and engagements with relevant policy makers and other regulator
2. Cross-border regulation and harmonisation of processes, methodologies and procedures	<ul style="list-style-type: none"> Possible incorrect decisions taken due to lack of all relevant information available 	<ul style="list-style-type: none"> Participation in RERA's Petroleum and Gas Regulatory Subcommittee Participation in regional and continental regulatory structures
4. Possible market interventions by Government: <ul style="list-style-type: none"> biofuels strategic stocks security of supply cleaner fuels New refinery LNG importation 	<ul style="list-style-type: none"> Inconsistent policy messages deterring investment Incorrect signals sent to the market 	<ul style="list-style-type: none"> Continued regulatory advocacy and engagements with relevant policy makers Continued participation in SADC structures (e.g. Oil and Gas Subcommittee) Identify potential regulatory process amendments Provide inputs on suggested policy and regulatory amendments Pro-actively engage on possible market interventions and adjust framework accordingly
5. Inconsistency in storage and loading tariff and storage methodology	<ul style="list-style-type: none"> Undue over-compensation 	<ul style="list-style-type: none"> Revise the methodology



Regulatory factors	Impact if factor is not addressed	NERSA response to the factor
Transversal Regulatory and Organisational		
1. Management of concurrent jurisdiction	<ul style="list-style-type: none"> • Regulatory overlap • No clear roles and responsibilities 	<ul style="list-style-type: none"> • Continued regulatory advocacy and engagements with relevant policy makers • Develop and implement MOUs and MOAs with regulators with concurrent jurisdiction
2. Perception of independence of the Regulator	<ul style="list-style-type: none"> • Uncertainty for investment 	<ul style="list-style-type: none"> • Develop a strategic engagement framework with all role players • Develop a proactive communication strategy on NERSA's activities – particularly on how decisions are reached
3. Review of the Energy Regulator Act	<ul style="list-style-type: none"> • Negative impact on regulatory ability if identified gaps are not addressed in the Act 	<ul style="list-style-type: none"> • Continued regulatory advocacy and engagements with relevant policy makers
4. Implementation of regulatory programmes and projects approved at continental and regional level	<ul style="list-style-type: none"> • NERSA may not be in a position to contribute to continental and regional matters that may have an impact on the energy industry, and the country as a whole 	<ul style="list-style-type: none"> • NERSA needs to incorporate continental and regional programmes in its regulatory activities (since RSA is a member and an important role player in regional and continental structures, e.g. RERA & AUC)



Table 8: Social factors

Social Factors	Impact if factor is not addressed	NERSA response to the factor
Electricity Industry Regulation		
1. Resistance from consumers to have tamper-free prepaid meters	<ul style="list-style-type: none"> Increased losses (energy and costs) for licensees Ineffective credit control and negative impact on viability of distributors 	<ul style="list-style-type: none"> Consumer education
2. Balancing Inclining Block Tariffs, Free Basic Electricity and social gaps	<ul style="list-style-type: none"> Increased poverty Boycotting of payments of electricity 	<ul style="list-style-type: none"> Continued regulatory advocacy and engagements with relevant policy makers – with specific reference to poverty alleviation measures Undertake a study on effectiveness of current IBT
Piped-Gas Industry Regulation		
1. Implementation of HDSA/B-BBEE participation policy	<ul style="list-style-type: none"> Limited participation in market by HDSA/B-BBEE and industry transformation Access to gas and infrastructure 	<ul style="list-style-type: none"> Ensure third-party access Continued regulatory advocacy and engagements with relevant policy makers – with specific reference to the development of a charter Enforce transformation provisions in BBEE legislation
2. Uncontrolled building on pipeline servitudes	<ul style="list-style-type: none"> May result in damage to pipelines, posing a threat to security of supply 	<ul style="list-style-type: none"> Increase pressure on licensees to consult with municipalities by monitoring and enforcing compliance with licence conditions and Regulations
3. Skills development	<ul style="list-style-type: none"> Inadequate skills to match new technically inclined developments upstream 	<ul style="list-style-type: none"> Monitor construction plans Ensure skills transfer in interactions with specialist service providers (e.g. skills transfer clauses in service level agreements with consultants) Ensure continued training on new developments in the industry



Social Factors	Impact if factor is not addressed	NERSA response to the factor
Petroleum Pipelines Industry Regulation		
1. Lack of awareness of positioning of pipelines by other relevant authorities	<ul style="list-style-type: none"> Health, safety and environmental risks – bad publicity or reputational risk for NERSA 	<ul style="list-style-type: none"> Public awareness campaigns to explain NERSA's role and responsibilities Monitor and enforce compliance with licence conditions and Regulations for licensees to liaise with municipalities
2. Increase of attempted theft on the pipelines	<ul style="list-style-type: none"> Security of supply compromised Health and safety risk 	<ul style="list-style-type: none"> Monitor and enforce compliance with licence conditions Promote improved coordination and cooperation with other regulatory authorities, municipalities and law enforcement agencies
Transversal Regulatory and Organisational		
1. High level of unemployment	<ul style="list-style-type: none"> Political instability that can affect delivery of infrastructure to the poor 	<ul style="list-style-type: none"> Ensure that NERSA's Internship and Learnership programmes are current and effective Investigate how NERSA can use tariffs to allow licensees to employ young people as apprentices
2. Service delivery protests (consumer activism)	<ul style="list-style-type: none"> Alienated and marginalised communities Potential increase in tariffs 	<ul style="list-style-type: none"> Conduct customer education and public consultation initiatives Develop a position paper on the most appropriate funding mechanisms Develop a position paper on tariff reducing instruments in order to obtain policy clarity
3. Perception of independence of the Regulator	<ul style="list-style-type: none"> Uncertainty for investment 	<ul style="list-style-type: none"> Develop a strategic engagement framework with all role players Develop a proactive communication strategy on NERSA's activities – particularly on how decisions are reached
4. Resistance to energy infrastructure close to settlements	<ul style="list-style-type: none"> Security of supply 	<ul style="list-style-type: none"> Ensure that the sector is ready for expropriation proceedings in terms of the Electricity Regulation Act

Table 9: Technological factors

Technological factors	Impact if factor is not addressed	NERSA response to the factor
Electricity Industry Regulation		
1. Technological innovation e.g. Smart Grid	<ul style="list-style-type: none"> • Security of supply • Stranded assets 	<ul style="list-style-type: none"> • Regulatory advocacy regarding regulations/policies to respond technological innovation in the sector • Monitor compliance • Develop measures in order to protect user information • Customer education
2. Renewable Generation	<ul style="list-style-type: none"> • Security of supply • SA not meeting environmental targets 	<ul style="list-style-type: none"> • Continued regulatory advocacy • Facilitate the integration of renewable energy into the grid
3. Gas as primary energy source	<ul style="list-style-type: none"> • Security of supply 	<ul style="list-style-type: none"> • Continued regulatory advocacy and engagements with relevant policy makers
4. Nuclear Generation	<ul style="list-style-type: none"> • Security of supply 	<ul style="list-style-type: none"> • Continued regulatory advocacy
5. Energy efficiency	<ul style="list-style-type: none"> • Revenue shortfall for municipalities/distributors/Eskom 	<ul style="list-style-type: none"> • Continued regulatory advocacy and engagements with relevant policy makers with specific reference to a different funding model for municipalities so that they do not have to depend mainly on electricity revenues • Continued monitoring of the implementation and the impact of energy efficient measures
6. Storage technologies	<ul style="list-style-type: none"> • Could impact prices and security of supply • Will not harness the benefits of e.g. renewable energy, mini grids, etc. 	<ul style="list-style-type: none"> • Create a regulatory environment to include this technology and capacity building of NERSA staff to improve understanding • Develop codes to define how these technologies connect with the electricity grid
7. Embedded and self-generation	<ul style="list-style-type: none"> • Eskom and Municipal sustainability at risk 	<ul style="list-style-type: none"> • Engage with stakeholders • Provide regulatory oversight on embedded and self-generation • Create a database on embedded generation and share with relevant stakeholders



Technological factors	Impact if factor is not addressed	NERSA response to the factor
Piped-Gas Industry Regulation		
1. Regulatory framework lags technological innovation	<ul style="list-style-type: none"> • Unregulated gas activities (risk) • Deters entry and investment • Regulatory uncertainty • NERSA could be exposed to possible legal action • Ineffective regulation 	<ul style="list-style-type: none"> • Continued regulatory advocacy • Incentivise through tariffs, prices and licensing • Monitor developments in the industry • Ensure that a regulatory framework is developed in order to be ready for the regulation of the industry with technological innovation
2. Lack of piped-gas infrastructure for new technology (Liquefied Natural Gas, regasification, Compressed Natural Gas, Floating Liquefied Natural Gas, Liquefied Natural Gas tanks etc.)	<ul style="list-style-type: none"> • Deters investment and growth of downstream industry 	<ul style="list-style-type: none"> • Continued regulatory advocacy and engagements with relevant policy makers
3. Resistance to new gas technology (e.g. Shale Gas hydraulic fracturing)	<ul style="list-style-type: none"> • SA misses out on opportunity to replace crude imports with domestic GTL 	<ul style="list-style-type: none"> • Conduct research on new gas technology and the impact on regulation • Continuously monitor developments of gas technologies • Review adequacy of current regulatory regime and rules • Continued regulatory advocacy and engagements with relevant policy makers • Conduct a skills analysis and develop a strategy to upgrade NERSA skills on regulation of new gas technologies
4. Lack of gas storage infrastructure	<ul style="list-style-type: none"> • Security of supply could be compromised 	<ul style="list-style-type: none"> • Continued regulatory advocacy and engagements with relevant policy makers

Technological factors	Impact if factor is not addressed	NERSA response to the factor
Petroleum Pipelines Industry Regulation		
1. Alternative forms of energy and technological improvements that reduce demand for petrol	<ul style="list-style-type: none"> • Risk of stranded assets • Risk of bankrupting new entrants • Lower pipeline volumes will lead to higher tariffs, which may result in incentives to use alternative modes of transport 	<ul style="list-style-type: none"> • Forward looking regulatory framework • Monitor trends and potential alignment of tariff methodologies • Create an environment to regulate within changing landscape • Monitor supply and demand
2. Fragmentation of the different product grades of fuel – losing economies of scale	<ul style="list-style-type: none"> • Lower volumes will lead to higher tariffs. Higher Transnet Pipeline costs due to higher interface volumes. • It will reduce available storage capacity for individual products • It will reduce availability of storage capacity per product grade and may consequently further reduce third-party access 	<ul style="list-style-type: none"> • Licence tanks to store more than one type of product
Transversal Regulatory and Organisational		
1. Rapid development in ICT sector	<ul style="list-style-type: none"> • Lost efficiencies and limited communication impact and reach 	<ul style="list-style-type: none"> • Harness technologies to speed up processes and improve efficiency • Implement cyber security controls



Table 10: Environmental factors

Environmental Factors	Impact if factor is not addressed	NERSA response to the factor
Electricity Industry Regulation		
1. Environmental activism and growing awareness of environmental factors	<ul style="list-style-type: none"> • Security of supply compromised • SA not meeting its reduction in greenhouse gas emission targets 	<ul style="list-style-type: none"> • Continued regulatory advocacy and engagements with relevant policy makers
2. Carbon tax (off sets and carbon trading)	<ul style="list-style-type: none"> • Higher prices of all non-renewable energy 	<ul style="list-style-type: none"> • Continued regulatory advocacy and engagements with relevant policy makers • Monitor developments and decisions taken by the G20
3. Minimum Emission Standard and climate change imperatives	<ul style="list-style-type: none"> • Can impact the security of supply because renewable energy generators cannot contribute to meeting peak demand and are unreliable in delivery of energy. • The current high cost of renewable energy generators will impact on the accessibility to all end users. 	<ul style="list-style-type: none"> • Conduct regulatory advocacy to highlight the risks of the standard
Piped-Gas Industry Regulation		
1. Environmental activism, global warming, carbon taxes and emissions reduction	<ul style="list-style-type: none"> • Gas market cannot grow 	<ul style="list-style-type: none"> • Continued regulatory advocacy and engagements with relevant policy makers – specifically to promote gas as a more attractive option and environmentally friendly energy source • Monitor developments and decisions taken by the G20 and climate change agreements
2. Shale Gas hydraulic fracturing perceived as an environmental threat	<ul style="list-style-type: none"> • SA misses out on shale gas potential • SA misses out on an opportunity to become energy self-sufficient 	<ul style="list-style-type: none"> • Conduct research on shale gas and the environment • Continued regulatory advocacy and engagements with relevant policy makers • Participate in national debate on shale gas and task teams where possible

Environmental Factors	Impact if factor is not addressed	NERSA response to the factor
Petroleum Pipelines Industry Regulation		
1. Reduction of carbon emissions	<ul style="list-style-type: none">• Additional cost to the economy with no alternative fuel source of any scale• Taxes applied by the economy cannot respond to the signal	<ul style="list-style-type: none">• Develop a report on the impact of the introduction of the Carbon Tax Act
2. Automotive industry is globally moving towards cleaner fuels and the market demand for cleaner fuels is increasing.		
Transversal Regulatory and Organisational		
1. Environmental levies and Carbon tax policy	<ul style="list-style-type: none">• SA not meeting its environmental targets• Lack of affordability• Policy uncertainty	<ul style="list-style-type: none">• Continued regulatory advocacy and engagements with relevant policy makers• Monitor developments and decisions taken by the G20
2. Delays in issuing environmental Impact Assessments	<ul style="list-style-type: none">• Security of supply	<ul style="list-style-type: none">• Continued regulatory advocacy and engagements with relevant policy makers
3. Health and Safety	<ul style="list-style-type: none">• Possible environmental disasters such as petroleum/ gas leaks from pipelines, wind turbine blades coming loose etc	<ul style="list-style-type: none">• NERSA to ensure that it discharges its responsibility regarding health and safety



Table 11: Legal factors

Legal factors	Impact if factor is not addressed	NERSA response to the factor
Electricity Industry Regulation		
1. Electricity Regulation Act under review	<ul style="list-style-type: none"> • Ineffective regulation 	<ul style="list-style-type: none"> • Continued regulatory advocacy and engagements with relevant policy makers
2. Legal challenges of NERSA's decisions	<ul style="list-style-type: none"> • Increase in court cases • Loss of credibility • Listed as Regulatory Risk • NERSA subject to liability claims 	<ul style="list-style-type: none"> • Make sure all decisions are made in accordance with sound regulatory principles.
Piped-Gas Industry Regulation		
1. Delays in legislative amendments and developments	<ul style="list-style-type: none"> • May deter entry into the gas market • Weak mandate on regulation of piped-gas • Uncertainty in terms of the separation of the oil and gas provision in the Bill 	<ul style="list-style-type: none"> • Continued regulatory advocacy and engagements with relevant policy makers
Petroleum Pipelines Industry Regulation		
1. Fragmentation of legislations – possible consolidation of downstream petroleum legislation	<ul style="list-style-type: none"> • Regulatory burden to licensees • Duplication of resources 	<ul style="list-style-type: none"> • Continued regulatory advocacy and engagements with relevant policy makers • Prepare for defragmentation
2. Possible legal / legislative intervention: <ul style="list-style-type: none"> • Petroleum Liquid Fuels Sector Codes • Petroleum Pipelines Act and Regulations • Mineral and Petroleum Resources Act 	<ul style="list-style-type: none"> • Regulatory uncertainty • Non-compliance with the BBBEE Act in issuing licenses 	<ul style="list-style-type: none"> • Continued regulatory advocacy and engagements with relevant policy makers • Continued efficient regulation • Amend licensing rules to include BBBEE requirements

Legal factors	Impact if factor is not addressed	NERSA response to the factor
Transversal Regulatory and Organisational		
1. National Energy Regulator Amendment Bill	<ul style="list-style-type: none"> NERSA's views not taken into consideration NERSA not ready when the National Energy Regulator Amendment Bill becomes operational 	<ul style="list-style-type: none"> Continued regulatory advocacy and engagements with relevant policy makers Regulatory Advocacy Proactively start preparing for a change in mandate
2. Ability to influence supplementary legislation	<ul style="list-style-type: none"> NERSA's views not included NERSA's powers weakened 	<ul style="list-style-type: none"> Develop a strategic engagement framework on developing legislation/policy changes Continued regulatory advocacy and engagements with relevant policy makers
3. Compliance with regulatory requirements (Public Finance Management Act and others)		
4. Fragmentation of legislations		
5. Infrastructure Development Act	<ul style="list-style-type: none"> Expectation to fund out of tariff and tax instead of by investment. 	<ul style="list-style-type: none"> Develop a position paper on what the funding model should be
6. Pending legal cases	<ul style="list-style-type: none"> Uncertainty on regulatory decisions and regulatory tools 	<ul style="list-style-type: none"> Implement decisions of the court as soon as the judgement is given



1. 2. INTERNAL ENVIRONMENT ANALYSIS

1.2.1. Organisational capacity

a) NERSA has an approved structure of 253 staff members. The staff strength as at 30 June 2019 is 238. This includes the 213 permanent employees, three Full-Time Regulator Members (FTRMs), three fixed-term contract employees and 19 interns.

b) Table 12 below summarises the staff complement of NERSA

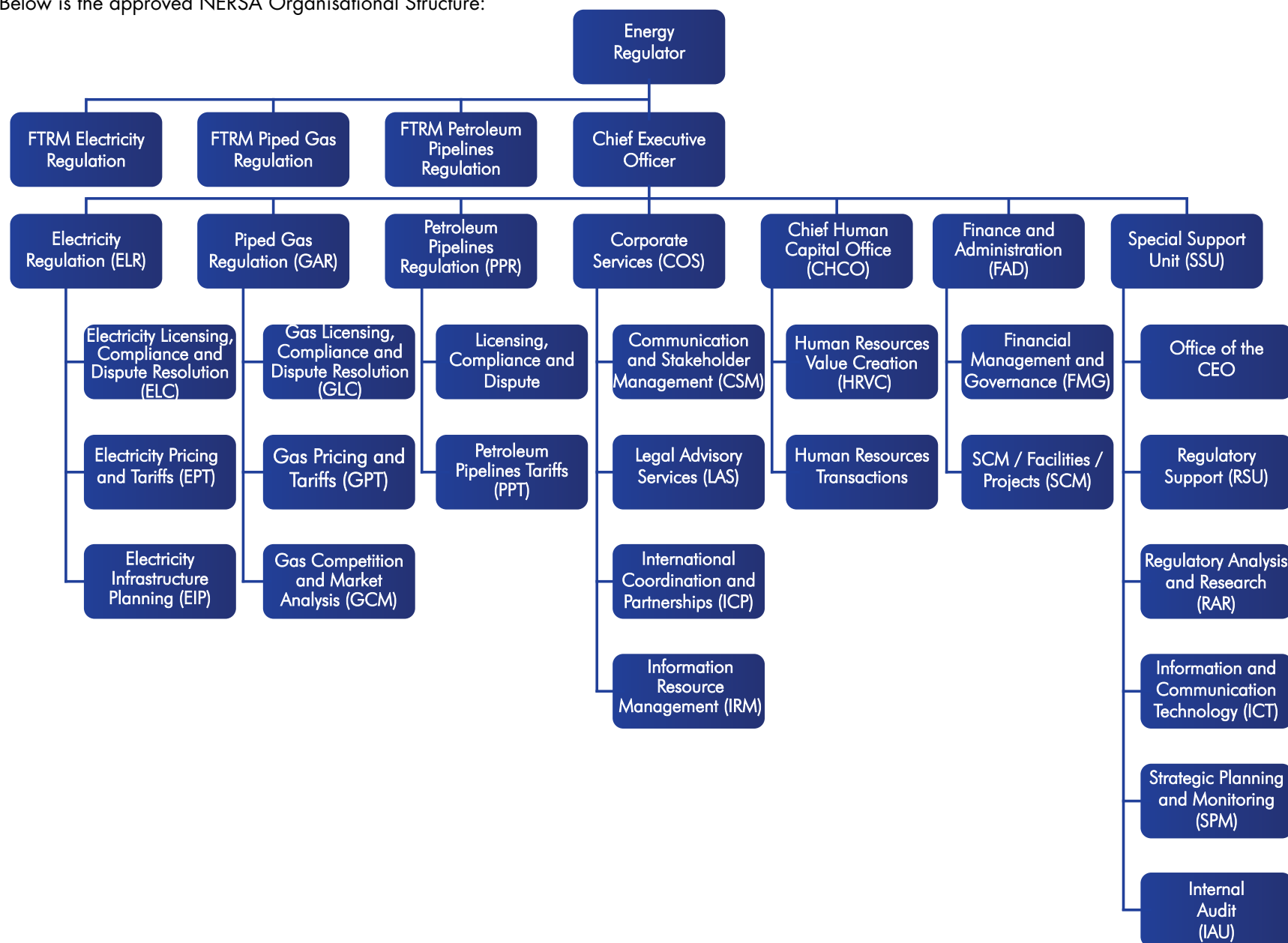
Table 12: NERSA Staff complement

DIVISION	DEPARTMENT	COMPLEMENT
Electricity Regulation (ELR)	FTRM	3
	Executive	3
	Electricity Pricing and Tariffs (EPT)	35
	Electricity Licensing, Compliance and Dispute Resolution (ELC)	34
	Electricity Infrastructure Planning (EIP)	13
Total		88
Piped-Gas Regulation (GAR)	FTRM	3
	Executive	5
	Gas Pricing and Tariffs (GPT)	8
	Gas Licensing, Compliance and Dispute Resolution (GLC)	11
	Gas, Competition and Market Analysis (GCM)	4
Total		31
Petroleum Pipelines Regulation (PPR)	FTRM	3
	Executive	6
	Petroleum Pipelines Tariffs (PPT)	9
	Petroleum Licensing, Compliance and Dispute Resolution (PLC)	9
Total		27

DIVISION	DEPARTMENT	COMPLEMENT
Finance and Administration (CFO)	Executive	3
	Financial Management and Governance (FMG)	7
	Supply Chain Management	13
Total		23
Human Resources (CHO)	Executive	2
	Human Resources – Value Creation	8
	Human Resources -Transactions	3
Total		13
Corporate Services (COS)	Executive	3
	Legal Advisory Services (LAS)	6
	Communication and Stakeholder Management (CSM)	9
	International Co-ordination and Partnerships (ICP)	3
	Information Resources Management (IRM)	7
	Information and Communication Technology (ICT)	10
Total		38
Specialised Support Units (SSU)	Internal Audit (IAU)	7
	Strategic Planning and Monitoring (SPM)	4
	Regulator Support (RSU)	11
	CEO's Office Operations (COO)	5
	Regulatory Analysis and Research (RAR)	6
Total		33
Grand Total NERSA Staff Complement		253



c) Below is the approved NERSA Organisational Structure:



1.2.2. Status regarding compliance with the BBBEE Act

In 2017/2018 NERSA embarked on its first B-BBEE accreditation and was awarded a Level eight (8) B-BBEE contribution status level. According to the BBBEE report, NERSA was accredited a Level seven (7) B-BBEE contribution Status. However, due to the fact that NERSA's skills development and enterprise development did not meet the minimum threshold, NERSA was discounted to a Level eight (8) contribution level.

Plans have been developed and implemented to improve the skills development and enterprise development requirements. In March 2019 the Energy Regulator approved the Enterprise Development Strategy and implementation commenced from April 2019.

1.2.3. Status regarding women and people with disabilities

- a) As at the end of June 2019, NERSA's staff strength is 216. It comprises 92 (43%) males and 124 (57%) females.
- b) As at the end of June 2019, there are 13 (54%) females and 11 (46%) males in management positions.
- c) As at the end of June 2019, there percentage of persons with disabilities is 2%.



PART C: MEASURING OUR PERFORMANCE

1. INSTITUTIONAL PROGRAMME PERFORMANCE INFORMATION

1.1. PROGRAMME 1: SETTING AND/OR APPROVAL OF TARIFFS AND PRICES

The programme purpose is to set and/or approve tariffs and prices in order to ensure a fair balance between the needs of the customer and the regulated entity. While the customer needs to be protected against misuse of monopolistic powers and unnecessary price hikes, the regulated entities needs to have sufficient income to ensure that they can continue operating as a going concern and have enough revenue for the maintenance and refurbishment of infrastructure.

1.1.1. INDUSTRY SPECIFIC SUB-PROGRAMMES

1.1.1.1. Electricity Industry Regulation

a) Outcomes, Outputs, Performance Indicators and Targets

OUTCOMES	OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS						
			Audited performance			Estimated performance	MTEF Period		
			2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Accessible and affordable electricity for all citizens	1. 100% of complete tariff applications of licensed distributors for <u>increases higher than the guideline and benchmark</u> considered by the ELS within 60 working days of receipt of complete application	% of complete tariff applications of licensed distributors for <u>increases higher than the guideline and benchmark</u> considered by the relevant committee or the Energy Regulator within the stated timeframe	New target	New target	New target	100%	100%	100%	100%
	2. 100% of complete tariff applications of licensed distributors for <u>increases within the guideline and benchmark</u> considered by the REC within 60 working days of receipt of complete application.	% of complete tariff applications of licensed distributors for <u>increases within the guideline and benchmark</u> considered by the relevant committee or the Energy Regulator within the stated timeframe	100%	100%	100%	100%	100%	100%	100%

OUTCOMES	OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS						
			Audited performance			Estimated performance	MTEF Period		
			2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
	3. One three-yearly report on the monitoring of the implementation of IBTs by licensed distributors in South Africa eligible for IBT implementation considered by ELS/REC by 31 March 2023	Number of reports on the monitoring of the implementation of IBTs by eligible licensed distributors in South Africa considered by the relevant committee or the Energy Regulator within the stated timeframe	-	-	-	1	-	-	1
	4. Energy Regulator decision on the review of Eskom's RCA application for 2019/20 within 6 months after receipt of complete application ¹⁷	Energy Regulator decision on the review of Eskom's RCA application for the previous financial year within the stated timeframe	New target	New target	-1 ¹⁸	Energy Regulator decision	Energy Regulator decision	Energy Regulator decision	Energy Regulator decision
	5. One report on the proposed guidelines and benchmarks for 2021/22 considered by the ELS/REC within 3 months after the decision on the ERTSA ¹⁹	Number of reports on the proposed guidelines and benchmarks for the next financial year considered by the relevant committee or the Energy Regulator within the stated timeframe	1	1	-1 ²⁰	1	1	1	1

¹⁷This output was amended to reflect a timeframe that is within NERSA's control.

¹⁸The report on the review of Eskom's RCA application could not be considered by 31 December 2018, as planned, because NERSA only received Eskom's application in September 2018 and not in June 2018 as expected. NERSA needs at least six months to conclude the analysis and consultation process. Hence the amendment of the indicator. The target was however completed within the reporting period.

¹⁹This output was amended to reflect a timeframe that is within NERSA's control.

²⁰The report on the proposed guideline and benchmarks for 2019/20 could not be completed by 31 December 2019, as planned, because this project is dependent on the approval of ERTSA, which in turn is dependent on the approval of Eskom's revenue application.



OUTCOMES	OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS						
			Audited performance			Estimated performance	MTEF Period		
			2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
	6. Energy Regulator decision on the review of Eskom's revenue application for year 1 of MYPD 5 considered by ER within 6 months after receipt of complete application ²¹	Energy Regulator decision on the review of Eskom's revenue application for year 1 of MYPD 5 considered by the relevant committee or the Energy Regulator within the stated timeframe	New target	New target	New target	No target planned	-	Energy Regulator decision	-
	7. One report on the analysis of Eskom's performance based on Regulatory Financial Reports (RFRs) considered by the ELS/REC within 3 months after receipt of completed RFRs from Eskom ²²	Number of reports on the analysis of Eskom's performance based on Regulatory Financial Reports (RFRs) considered by the relevant committee or the Energy Regulator within the stated timeframe	1	1	1	1	1	1	1
Regulatory certainty within the electricity industry	8. One report on analysis of Eskom's ERTSA for the coming financial year considered by the ELS/ER within 6 months after receipt of complete application. ²³	Number of reports on analysis of Eskom's ERTSA for the coming financial year considered by the relevant committee or the Energy Regulator within the stated timeframe	1	1	-1 ²⁴	1	1	1	1
	9. One report on the calculation of the FBE Rate for the compensation of Eskom considered by ELS/ER within 2 months after the approval of ERTSA	Number of reports on the calculation of the FBE Rate for the compensation of Eskom considered by the relevant committee or the Energy Regulator within the stated timeframe	1	1	1	1	1	1	1

²¹This output was amended to reflect a timeframe that is within NERSA's control.

²²This output was amended to reflect a timeframe that is within NERSA's control.

²³This output was amended to reflect a timeframe that is within NERSA's control.

²⁴NERSA received Eskom's applications in September 2018, hence this target could not be completed by 31 December 2018, as planned. It was however completed within the reporting period.

b) Indicators, Annual and Quarterly Targets

OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS	QUARTERLY TARGETS			
			Q1	Q2	Q3	Q4
1. 100% of complete tariff applications of licensed distributors for <u>increases higher than the guideline and benchmark</u> considered by the ELS within 60 working days of receipt of complete application	% of complete tariff applications of licensed distributors for <u>increases higher than the guideline and benchmark</u> considered by the relevant committee or the Energy Regulator within the stated timeframe	100%	100%	100%	100%	100%
2. 100% of complete tariff applications of licensed distributors for <u>increases within the guideline and benchmark</u> considered by the REC within 60 working days of receipt of complete application.	% of complete tariff applications of licensed distributors for <u>increases within the guideline and benchmark</u> considered by the relevant committee or the Energy Regulator within the stated timeframe	100%	100%	100%	100%	100%
3. Energy Regulator decision on the review of Eskom's RCA application for 2019/20 within 6 months after receipt of complete application ²⁵	Energy Regulator decision on the review of Eskom's RCA application for the previous financial year within the stated timeframe	Energy Regulator decision	-	-	-	Energy Regulator decision
4. One report on the proposed guidelines and benchmarks for 2021/22 considered by the ELS/REC within 3 months after the decision on the ERTSA ²⁶	Number of reports on the proposed guidelines and benchmarks for the next financial year considered by the relevant committee or the Energy Regulator within the stated timeframe	1	-	-	-	1
5. One report on the analysis of Eskom's performance based on Regulatory Financial Reports (RFRs) considered by the ELS/REC within 3 months after receipt of completed RFRs from Eskom ²⁷	Number of reports on the analysis of Eskom's performance based on Regulatory Financial Reports (RFRs) considered by the relevant committee or the Energy Regulator within the stated timeframe	1	-	-	-	1
6. One report on analysis of Eskom's ERTSA for the coming financial year considered by the ELS/ER within 6 months after receipt of complete application ²⁸	Number of reports on analysis of Eskom's ERTSA for the coming financial year considered by the relevant committee or the Energy Regulator within the stated timeframe	1	1	-	-	-

²⁵This output was amended to reflect a timeframe that is within NERSA's control.

²⁶This output was amended to reflect a timeframe that is within NERSA's control.

²⁷This output was amended to reflect a timeframe that is within NERSA's control.

²⁸This output was amended to reflect a timeframe that is within NERSA's control.

OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS	QUARTERLY TARGETS			
			Q1	Q2	Q3	Q4
7. One report on the calculation of the FBE Rate for the compensation of Eskom considered by ELS/ER within 2 months after the approval of ERTSA	Number of reports on the calculation of the FBE Rate for the compensation of Eskom considered by the relevant committee or the Energy Regulator within the stated timeframe	1	1	-	-	-

1.1.1.2. Piped-Gas Industry Regulation

a) Outcomes, Outputs, Performance Indicators and Targets

OUTCOMES	OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS						
			Audited performance			Estimated performance	MTEF Period		
			2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Access to competitive gas prices and gas services	1. 100% of complete maximum price applications considered by the ER within 120 working days after date of publication of the preliminary assessment of the maximum price applications	% of complete maximum price applications considered by the relevant committee or the Energy Regulator within the stated timeframe	100%	100%	100%	100%	100%	100%	100%
	2. 100% of complete trading margin applications considered by the ER within 120 working days after the date of the publication of the preliminary assessment of the applications	% of complete trading margin applications considered by the relevant committee or the Energy Regulator within the stated timeframe	100%	100%	0% ²⁹	100%	100%	100%	100%

²⁹The four trading margin applications were considered in a period longer than the targeted 120 working days after the date of the publication of preliminary assessment of the applications.

OUTCOMES	OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS						
			Audited performance			Estimated performance	MTEF Period		
			2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
	3. 100% of complete applications on distinguishing features considered by the ER within 120 working days after the date of the publication of preliminary assessment of the applications	% of complete applications on distinguishing features considered by the relevant committee or the Energy Regulator within the stated timeframe	New target	New target	New target	100%	100%	100%	100%
	4. 100% of complete transmission tariff applications considered by ER within 120 working days after date of publication of preliminary assessment of tariff applications	% of complete transmission tariff applications considered by the relevant committee or the Energy Regulator within the stated timeframe	100%	100%	No applications received	100%	100%	100%	100%
	5. Four calculations of the ROMPCO tariff for gas volumes below 120 million Gigajoules considered quarterly by the PGS	Number of calculations of the ROMPCO tariff for gas volumes below 120 million Gigajoule considered by the relevant committee or the Energy Regulator within the stated timeframe	4	4	4	4	4	4	4



b) Indicators, Annual and Quarterly Targets

OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS	QUARTERLY TARGETS			
			Q1	Q2	Q3	Q4
1. 100% of complete maximum price applications considered by the ER within 120 working days after date of publication of the preliminary assessment of the maximum price applications	% of complete maximum price applications considered by the relevant committee or the Energy Regulator within the stated timeframe	100%	100%	100%	100%	100%
2. 100% of complete trading margin applications considered by the ER within 120 working days after the date of the publication of the preliminary assessment of the applications	% of complete trading margin applications considered by the relevant committee or the Energy Regulator within the stated timeframe	100%	100%	100%	100%	100%
3. 100% of complete applications on distinguishing features considered by the ER within 120 working days after the date of the publication of preliminary assessment of the applications	% of complete applications on distinguishing features considered by the relevant committee or the Energy Regulator within the stated timeframe	100%	100%	100%	100%	100%
4. 100% of complete transmission tariff applications considered by ER within 120 working days after date of publication of preliminary assessment of tariff applications	% of complete transmission tariff applications considered by the relevant committee or the Energy Regulator within the stated timeframe	100%	100%	100%	100%	100%
5. Four calculations of the ROMPCO tariff for gas volumes below 120 million Gigajoules considered quarterly by the PGS	Number of calculations of the ROMPCO tariff for gas volumes below 120 million Gigajoule considered by the relevant committee or the Energy Regulator within the stated timeframe	4	1	1	1	1

1.1.1.3. Petroleum Pipelines Industry Regulation

a) Outcomes, Outputs, Performance Indicators and Targets

OUTCOMES	OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS						
			Audited performance			Estimated performance	MTEF Period		
			2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Access to petroleum infrastructure	1. 75% of complete pipeline, storage and loading facility tariff applications considered by the PPS/ER within 6 months from receipt of application ³⁰	% of complete pipeline, storage and loading facility tariff applications considered by the relevant committee or the Energy Regulator within the stated timeframe	60%	100%	70%	90%	75% ³¹	80%	80%

b) Indicators, Annual and Quarterly Targets

OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS	QUARTERLY TARGETS			
			Q1	Q2	Q3	Q4
1. 75% of complete pipeline, storage and loading facility tariff applications considered by the PPS/ER within 6 months from receipt of complete application ³²	% of complete pipeline, storage and loading facility tariff applications considered by the relevant committee or the Energy Regulator within the stated timeframe	75%	75%	75%	75%	75%

³⁰The turnaround time of target was amended to reflect the directive stated in the State of Nation Address 2019, which states that "we must reach a point where no company need wait more than six months for a permit or licence".

³¹The turnaround for this target was 7 months in the previous financial years. As a result the of the aforementioned change of the turnaround time, the percentage of applications considered was lowered to 75% in 6 months in order to be aligned with the 90% in 7 months.

³²The turnaround time of target was amended to reflect the directive stated in the State of Nation Address 2019, which states that "we must reach a point where no company need wait more than six months for a permit or licence".



1.1.2. EXPLANATION OF PLANNED PERFORMANCE OVER THE MEDIUM TERM PERIOD

The planned output is in line with one of the regulatory functions of NERSA, as contained in relevant legislation, namely setting and/or approving tariffs and prices.

1.1.3. PROGRAMME RESOURCE CONSIDERATIONS

The budget for activities relating to the regulation of the energy industry is based on a ring-fencing methodology that was approved to comply with section 13 of the National Energy Regulator Act, 2004 (Act No. 40 of 2004). The methodology is based on direct employment cost as a basis of common costs apportionment. Direct costs are allocated directly to the respective industry.

The table below indicates the approved staff complement and the approved budget for 2020/21 for Programme 1: Setting and/or approval of tariffs and price

REGULATED INDUSTRY	RELEVANT STRUCTURES	STAFF COMPLEMENT	BUDGET (R)	% ALLOCATION
Electricity	Electricity Regulation	3	1 670 941	20%
	Electricity Pricing and Tariffs	35	34 787 183	100%
	Electricity Infrastructure Planning	13	1 841 440	10%
Piped-Gas	Piped-Gas Regulation	5	2 011 221	20%
	Piped-Gas Pricing and Tariffs	8	11 750 130	100%
Petroleum Pipelines	Petroleum Pipelines Regulation	6	1 977 669	20%
	Petroleum Pipeline Tariffs	9	10 520 978	100%

Note: The % allocation is based on the staff complement of the Organisation in line with the ring-fencing methodology.

Please refer to Part D: Funding for NERSA for the detailed budget.

1.1.4. KEY RISKS

OUTCOMES	KEY RISK	RISK MITIGATION
Financially sustainable supply of electricity by municipalities and private distributors	<ul style="list-style-type: none"> Regulatory uncertainty 	<ul style="list-style-type: none"> Review methodology for municipalities to include cost of supply studies. Facilitate special pricing arrangements to protect vulnerable industries
Sustainability of electricity supply by Eskom		
Piped-gas price and tariff certainty	<ul style="list-style-type: none"> Slow rate of investment in energy infrastructure to meet the demand Highly concentrated environment High barriers to entry 	<ul style="list-style-type: none"> Ensure tariffs approved provide rewards to compensate for risks of the investors. Propose competitive gas prices and tariffs that takes into consideration the needs of consumers and producers Periodic review of the Tariff Guidelines to align with piped-gas industry developments
Access to petroleum products, security of supply and investment in the petroleum pipelines industry	<ul style="list-style-type: none"> Slow rate of investment in petroleum infrastructure to meet demand Rising energy tariffs and prices 	<ul style="list-style-type: none"> Engagements with prospective investors. Consideration of the requirement to facilitate investment in the review of the tariff methodology



1.2. PROGRAMME 2: LICENSING AND REGISTRATION

The programme purpose is to ensure the orderly development of the energy industry and to ensure that all activities related to all operations are licensed and registered as required by the Electricity Regulation Act, 2006 (Act No. 4 of 2006), Gas Act, 2001 (Act No. 48 of 2001) and the Petroleum Pipelines Act, 2003 (Act No. 60 of 2003).

1.2.1. INDUSTRY SPECIFIC SUB-PROGRAMMES

1.2.1.1. Electricity Industry Regulation

a) Outcomes, Outputs, Performance Indicators and Targets

OUTCOMES	OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS						
			Audited performance			Estimated performance	MTEF Period		
			2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Energy supply that is certain and secure for current and future user needs through the orderly development and operation of the electricity supply infrastructure	1. 100% of complete licence applications considered by the ER within 120 working days after the period of objections expired and no objections were received or after objections are addressed	% of complete licence applications considered by the relevant committee or the Energy Regulator within the stated timeframe	100%	100%	100%	100%	100%	100%	100%
	2. 100% of complete applications for amendment of licence considered by the ELS/REC within 120 working days after the period of objections expired and no objections were received or after objections are addressed	% of complete applications for amendment of licence considered by the relevant committee or the Energy Regulator within the stated timeframe	New target	New target	New target	100%	100%	100%	100%
	3. 100% of complete applications for registration of electricity generation facilities considered by the ELS within 60 days from receipt of all required information	% of complete applications for registration of electricity generation facilities considered by the relevant committee or the Energy Regulator within the stated timeframe	New target	New target	New target	100%	100%	100%	100%

OUTCOMES	OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS						
			Audited performance			Estimated performance	MTEF Period		
			2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
A regulatory environment that facilitates investment in electricity infrastructure	4. One report on new entrants into the electricity supply industry considered annually by the ELS by 31 March	Number of reports on new entrants into the electricity supply industry considered by the relevant committee or the Energy Regulator within the stated timeframe	New target	New target	New target	New target	1	1	1

b) Indicators, Annual and Quarterly Targets

OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS	QUARTERLY TARGETS			
			Q1	Q2	Q3	Q4
1. 100% of complete licence applications considered by the ER within 120 working days after the period of objections expired and no objections were received or after objections are addressed	% of complete licence applications considered by the relevant committee or the Energy Regulator within the stated timeframe	100%	100%	100%	100%	100%
2. 100% of complete applications for amendment of licence considered by the ELS/REC within 120 working days after the period of objections expired and no objections were received or after objections are addressed	% of complete applications for amendment of licence considered by the relevant committee or the Energy Regulator within the stated timeframe	100%	100%	100%	100%	100%
3. 100% of complete applications for registration of electricity generation facilities considered by the ELS within 60 days from receipt of all required information	% of complete applications for registration of electricity generation facilities considered by the relevant committee or the Energy Regulator within the stated timeframe	100%	100%	100%	100%	100%
4. One report on new entrants into the electricity supply industry considered annually by the ELS by 31 March	Number of reports on new entrants into the electricity supply industry considered by the relevant committee or the Energy Regulator within the stated timeframe	1	-	-	-	1



1.2.1.2. Piped-Gas Industry Regulation

a) Outcomes, Outputs, Performance Indicators and Targets

OUTCOMES	OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS						
			Audited performance			Estimated performance	MTEF Period		
			2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Efficient, sustainable and orderly development of the piped-gas industry aimed at security of supply	1. 100% of complete licence applications considered by the PGS/REC within 60 working days from date of close of public comment period or period of applicant's response to objections received	% of complete licence applications considered by the relevant committee or the Energy Regulator within the stated timeframe	100%	100%	100%	100%	100%	100%	100%
	2. 100% of complete applications for licence amendments considered by the PGS/REC within 60 working days from date of close of public comment period or period of applicant's response to objections received	% of complete applications for licence amendments considered by the relevant committee or the Energy Regulator within the stated timeframe	New target	New target	100%	100%	100%	100%	100%
	3. 100% of complete applications for the registration of gas activities considered by the PGS within 60 working days from date of close of public comment period	% of complete applications for the registration of gas activities considered by the relevant committee or the Energy Regulator within the stated timeframe	100%	100%	100%	100%	100%	100%	100%

OUTCOMES	OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS						
			Audited performance			Estimated performance	MTEF Period		
			2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
	4. One report on the assessment of criteria for the allocation of uncommitted capacity considered annually by the PGS by 31 March	Number of reports on the assessment of criteria for the allocation of uncommitted capacity considered by the relevant committee or the Energy Regulator within the stated timeframe	New target	New target	New target	New target	1	1	1

b) Indicators, Annual and Quarterly Targets

OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS	QUARTERLY TARGETS			
			Q1	Q2	Q3	Q4
1. 100% of complete licence applications considered by the PGS/REC within 60 working days from date of close of public comment period or period of applicant's response to objections received	% of complete licence applications considered by the relevant committee or the Energy Regulator within the stated timeframe	100%	100%	100%	100%	100%
2. 100% of complete applications for licence amendments considered by the PGS/REC within 60 working days from date of close of public comment period or period of applicant's response to objections received	% of complete applications for licence amendments considered by the relevant committee or the Energy Regulator within the stated timeframe	100%	100%	100%	100%	100%
3. 100% of complete registration applications of gas activities considered by the PGS within 60 working days from date of close of public comment period	% of complete registration applications of gas activities considered by the relevant committee or the Energy Regulator within the stated timeframe	100%	100%	100%	100%	100%
4. One report on the assessment of criteria for the allocation of uncommitted capacity considered annually by the PGS by 31 March	Number of reports on the assessment of criteria for the allocation of uncommitted capacity considered by the relevant committee or the Energy Regulator within the stated timeframe	1	-	-	-	1



1.2.1.3. Petroleum Pipelines Industry Regulation

a) Outcomes, Outputs, Performance Indicators and Targets

OUTCOMES	OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS						
			Audited performance			Estimated performance	MTEF Period		
			2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Efficient, sustainable and orderly development of a transformed petroleum pipelines industry aimed at security of supply	1. 100% of complete licence applications considered by the PPS/REC/ER within 60 working days under the conditions as prescribed in Section 19(1) of the Petroleum Pipelines Act	% of complete licence applications considered by the relevant committee or the Energy Regulator within the stated timeframe	100%	100%	100%	100%	100%	100%	100%
	2. 100% of complete applications for licence amendments / revocations considered by the PPS/REC/ER within 60 working days under the conditions as prescribed in Sections 23 or 24 of the Petroleum Pipelines Act	% of complete applications for licence amendments / revocations considered by the relevant committee or the Energy Regulator within the stated timeframe	New target	New target	New target	100%	100%	100%	100%
	3. One reports on investigations done into suspected unlicensed activities considered annually by the REC by 31 March	Number of reports on investigations done into suspected unlicensed activities considered by the relevant committee or the Energy Regulator within the stated timeframe	4	4	4	1 ³³	1	1	1
A competitive petroleum pipelines industry	4. One report on new entrants into the petroleum pipelines industry considered annually by the PPS by 31 March	Number of reports on new entrants into the petroleum pipelines industry considered by the relevant committee or the Energy Regulator within the stated timeframe	New target	New target	New target	New target	1	1	1

³³It became clear that 4 quarterly reports are too many. It was therefore decided that one consolidated report on all the investigations would be done.

OUTCOMES	OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS						
			Audited performance			Estimated performance	MTEF Period		
			2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
	5. One report on the pipelines, storage and loading licenses issued considered annually by the PPS by 31 March	Number of reports on the pipelines, storage and loading licenses issued considered by the relevant committee or the Energy Regulator within the stated timeframe	New target	New target	New target	New target	1	1	1

b) Indicators, Annual and Quarterly Targets

OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS	QUARTERLY TARGETS			
			Q1	Q2	Q3	Q4
1. 100% of licence applications considered by the PPS/ REC/ER within 60 working days under the conditions as prescribed in Section 19(1) of the Petroleum Pipelines Act	% licence applications considered by the relevant committee or the Energy Regulator within the stated timeframe	100%	100%	100%	100%	100%
2. 100% of applications for licence amendments / revocations considered by the PPS/REC/ER within 60 working days under the conditions as prescribed in Sections 23 or 24 of the Petroleum Pipelines Act	% applications for licence amendments / revocations considered by the relevant committee or the Energy Regulator within the stated timeframe	100%	100%	100%	100%	100%
3. One report on investigations done into suspected unlicensed activities considered annually by the REC by 31 March	Number of reports on investigations done into suspected unlicensed activities considered by the relevant committee or the Energy Regulator within the stated timeframe	1	-	-	-	1
4. One report on new entrants into the petroleum pipelines industry considered annually by the PPS by 31 March	Number of reports on new entrants into the petroleum pipelines industry considered by the relevant committee or the Energy Regulator within the stated timeframe	1	-	-	-	1
5. One report on the pipelines, storage and loading licenses issued considered annually by the PPS by 31 March	Number of reports on the pipelines, storage and loading licenses issued considered by the relevant committee or the Energy Regulator within the stated timeframe	1	-	-	-	1



1.2.2. EXPLANATION OF PLANNED PERFORMANCE OVER THE MEDIUM TERM PERIOD

The planned output is in line with one of the regulatory functions of NERSA, as contained in relevant legislation, namely:

- Issuing of licences with conditions; and
- Registration of electricity generation activities and gas activities.

1.2.3. PROGRAMME RESOURCE CONSIDERATIONS

The budget for activities relating to the regulation of the energy industry is based on a ring-fencing methodology that was approved to comply with section 13 of the National Energy Regulator Act, 2004 (Act No. 40 of 2004). The methodology is based on direct employment cost as a basis of common costs apportionment. Direct costs are allocated directly to the respective industry.

The table below indicates the approved staff complement and the approved budget for 2020/21 for Programme 2: Licensing and Registration:

REGULATED INDUSTRY	RELEVANT STRUCTURES	STAFF COMPLEMENT	BUDGET (R)	% ALLOCATION
Electricity	Electricity Regulation	3	1 670 941	20%
	Electricity licencing, Compliance, and Dispute Resolution	34	14 272 868	40%
Piped-Gas	Piped-Gas Regulation	5	2 011 221	20%
	Piped-Gas Licensing, Compliance and Dispute Resolution	11	5 100 293	40%
Petroleum Pipelines	Petroleum Pipelines Regulation	6	1 977 669	20%
	Petroleum Licensing, Compliance and Dispute Resolution	9	4 395 145	40%

Note: The % allocation is based on the staff complement of the Organisation in line with the ring-fencing methodology.

Please refer to Part D: Funding for NERSA for the detailed budget.

1.2.4. KEY RISKS

OUTCOMES	KEY RISK	RISK MITIGATION
Orderly development of the Electricity industry	<ul style="list-style-type: none"> • Highly concentrated environment 	<ul style="list-style-type: none"> • Review methodology for municipalities to include cost of supply studies. • Facilitate special pricing arrangements to protect vulnerable industries
Orderly development of the piped-gas industry by efficient licensing of gas activities and registration of gas imports and production	<ul style="list-style-type: none"> • Shortage of primary energy supply • Slow rate of investment in energy infrastructure to meet the demand • Highly concentrated environment • High barriers to entry 	<ul style="list-style-type: none"> • Regulatory advocacy on the need for an investment friendly regulatory framework
Efficient, effective, sustainable and orderly development, operation and use of petroleum pipelines infrastructure	<ul style="list-style-type: none"> • Slow rate of investment in energy infrastructure to meet the demand • Highly concentrated environment • Regulatory uncertainty • High barriers to entry 	<ul style="list-style-type: none"> • Regulatory advocacy on the need for an investment friendly regulatory framework



1.3. PROGRAMME 3: COMPLIANCE MONITORING AND ENFORCEMENT

1.3.1. INDUSTRY SPECIFIC SUB-PROGRAMMES

The programme purpose is to ensure that all licensees in the three regulated industries fully comply with their licence conditions, including those relating to health, safety, security and environmental standards and requirements, as well as any other standards and requirements prescribed by the relevant industry-specific legislation. The programme will also ensure compliance with directives to govern relations between a licensee and its end users. Compliance monitoring will be done in such a way that a fair balance between the interests of all stakeholders is encouraged and maintained.

1.3.1.1. Electricity Industry Regulation

a) Outcomes, Outputs, Performance Indicators and Targets

OUTCOMES	OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS						
			Audited performance			Estimated performance	MTEF Period		
			2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
A regulatory environment that facilitates investment in electricity infrastructure	1. One consolidated distribution audit report on the state of compliance of licensees with licence conditions considered annually by the ELS/REC by 31 March	Number consolidated distribution audit reports on the state of compliance of licensees with licence conditions considered by the relevant committee or the Energy Regulator within the stated timeframe	1	1	1	1	1	1	1
	2. One consolidated generation audit report on the state of compliance of power stations with licence conditions considered annually by the ELS/REC by 31 March	Number of consolidated generation audit reports on the state of compliance of power stations with licence conditions considered by the relevant committee or the Energy Regulator within the stated timeframe	1	1	1	1	1	1	1

OUTCOMES	OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS						
			Audited performance			Estimated performance	MTEF Period		
			2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
	3. One consolidated transmission audit report on the state of compliance of Main Transmission Substations with licence conditions considered annually by the ELS/REC by 31 March	Number of consolidated transmission audit reports on the state of compliance of Main Transmission Substations with licence conditions considered by the relevant committee or the Energy Regulator within the stated timeframe	1	1	1	1	1	1	1
	4. Three reports, one each for transmission, generation and distribution licensees, on the monitoring of the implementation of the corrective action plans by non-complying licensees considered annually by the ELS/REC by 31 March	Number of progress reports on the monitoring of the implementation of the corrective action plans by non-complying licensees considered by the relevant committee or the Energy Regulator within the stated timeframe	3	3	3	3	3	3	3
	5. One audit report on the review of the annual performance of IDM for 2019/20 considered by the ELS/REC/ER within 180 working days after receipt of Eskom's IDM audited Annual Report ³⁴	Number of audit reports on the review of the annual performance of IDM for the previous financial year considered by the relevant committee or the Energy Regulator within the stated timeframe	1	1	1	1	1	1	1

³⁴The output was amended to reflect a timeframe that is within NERSA's control.



OUTCOMES	OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS						
			Audited performance			Estimated performance	MTEF Period		
			2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
	6. One audit report on the Transmission Network Development 2019/20 projects for compliance with the South African Grid Code considered annually by the ELS/REC by 31 March subject to all information available	Number of audit reports on the Transmission Network Development for the previous financial year projects for compliance with the South African Grid Code considered by the relevant committee or the Energy Regulator within the stated timeframe, subject to all information available	1	1	1	1	1	1	1
	7. One audit report on the Distribution Network Development 2019/20 projects for compliance with the South African Grid Code considered annually by the ELS/REC by 31 March	Number of audit reports on the Distribution Network Development for the previous financial year projects for compliance with the South African Grid Code considered by the relevant committee or the Energy Regulator within the stated timeframe, subject to all information available	New target	New target	New target	New target	1	1	1
	8. Two monitoring reports on the performance and progress of Renewable Energy projects for 2021/22 considered annually by the ELS/REC by 30 September and 31 March respectively	Number of monitoring reports on the performance and progress of Renewable Energy projects for the next financial year, considered by the relevant committee or the Energy Regulator within the stated timeframe	2	2	2	2	2	2	2
	9. Two reports on the implementation of the Service Quality Incentive (SQI) – one each for transmission and distribution considered annually by the ELS/REC by 31 March	Number of reports on the implementation of the Service Quality Incentive (SQI) – one each for transmission and distribution considered by the relevant committee or the Energy Regulator within the stated timeframe	New target	New target	New target	New target	2	2	2

b) Indicators, Annual and Quarterly Targets

OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS	QUARTERLY TARGETS			
			Q1	Q2	Q3	Q4
1. One consolidated distribution audit report on the state of compliance of licensees with licence conditions considered annually by the ELS/REC by 31 March	Number consolidated distribution audit reports on the state of compliance of licensees with licence conditions considered by the relevant committee or the Energy Regulator within the stated timeframe	1	-	-	-	1
2. One consolidated generation audit report on the state of compliance of power stations with licence conditions considered annually by the ELS/REC by 31 March	Number of consolidated generation audit reports on the state of compliance of power stations with licence conditions considered by the relevant committee or the Energy Regulator within the stated timeframe	1	-	-	-	1
3. One consolidated transmission audit report on the state of compliance of Main Transmission Substations with licence conditions considered annually by the ELS/REC by 31 March	Number of consolidated transmission audit reports on the state of compliance of Main Transmission Substations with licence conditions considered by the relevant committee or the Energy Regulator within the stated timeframe	1	-	-	-	1
4. Three reports, one each for transmission, generation and distribution licensees, on the monitoring of the implementation of the corrective action plans by non-complying licensees considered annually by the ELS/REC by 31 March	Number of progress reports on the monitoring of the implementation of the corrective action plans by non-complying licensees considered by the relevant committee or the Energy Regulator within the stated timeframe	3	-	-	-	3
5. One audit report on the review of the annual performance of IDM for 2019/20 considered by the ELS/REC/ER within 180 working days after receipt of Eskom's IDM audited Annual Report	Number of audit reports on the review of the annual performance of IDM for the previous financial year considered by the relevant committee or the Energy Regulator within the stated timeframe	1	-	-	-	1
6. One audit report on the Transmission Network Development 2019/20 projects for compliance with the South African Grid Code considered annually by the ELS/REC by 31 March subject to all information available	Number of audit reports on the Transmission Network Development for the previous financial year projects for compliance with the South African Grid Code considered by the relevant committee or the Energy Regulator within the stated timeframe, subject to all information available	1	-	-	-	1



OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS	QUARTERLY TARGETS			
			Q1	Q2	Q3	Q4
7. One audit report on the Distribution Network Development 2019/20 projects for compliance with the South African Grid Code considered annually by the ELS/REC by 31 March	Number of audit reports on the Distribution Network Development for the previous financial year projects for compliance with the South African Grid Code considered by the relevant committee or the Energy Regulator within the stated timeframe, subject to all information available	1	-	-	-	1
8. Two monitoring reports on the performance and progress of Renewable Energy projects for 2021/22 considered annually by the ELS/REC by 30 September and 31 March respectively	Number of monitoring reports on the performance and progress of Renewable Energy projects for the next financial year, considered by the relevant committee or the Energy Regulator within the stated timeframe	2	-	1	-	1
9. Two reports on the implementation of the Service Quality Incentive (SQI) – one each for transmission and distribution considered annually by the ELS/REC by 31 March	Number of reports on the implementation of the Service Quality Incentive (SQI) – one each for transmission and distribution considered by the relevant committee or the Energy Regulator within the stated timeframe	2	-	-	-	2

1.3.1.2. Piped-Gas Industry Regulation

a) Outcomes, Outputs, Performance Indicators and Targets

OUTCOMES	OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS						
			Audited performance			Estimated performance	MTEF Period		
			2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Supply of 120m GJ p.a. from Mozambique to South Africa (in terms of Clause 4 of Schedule One to the Agreement)	1. Twelve monthly volume balance reports assessed and analysis reports considered quarterly by the PGS	Number of monthly volume balance reports assessed and analysis reports considered by the relevant committee or the Energy Regulator within the stated timeframe	12	12	12	12	12	12	12
	2. One audit conducted on the ROMPCO pipeline according to the compliance framework and audit report considered annually by the PGS by 31 March	Number of audits conducted on the ROMPCO pipeline according to the compliance frameworks and audit reports considered by the relevant committee or the Energy Regulator within the stated timeframe	2	1	1	1	1	1	1
Sustainable and safe piped-gas industry by enforcing compliance with licence conditions	3. Forty five inspections conducted, non-compliance notices issued (where necessary) and quarterly inspection reports considered by the PGS	Number of inspections conducted, non-compliance notices issued (where necessary) and inspection reports considered by the relevant committee or the Energy Regulator within the stated timeframe	76	40	48	45	45	50	50



OUTCOMES	OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS						
			Audited performance			Estimated performance	MTEF Period		
			2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Compliance with approved transmission tariffs, Maximum Prices and RRM	4. Three monitoring reports on the implementation of transmission tariffs (one each for ROMPCO, Transnet and Sasol Gas) considered annually by the PGS by 31 March, after one year following the approval of the transmission tariff	Number of monitoring reports on the implementation of transmission tariffs considered by the relevant committee or the Energy Regulator within the stated timeframe	3	3	3	3	3	3	3
	5. Four reports (one for each licensee) on the implementation of the RRM in 2019/20 considered annually by the PGS/REC by 31 March	Number of reports on the implementation of the RRM for the preceding financial year considered by the relevant committee or the Energy Regulator within the stated timeframe	New target	4	New target	4	4	4	4
	6. One monitoring report on the implementation of Maximum Prices per licensee after one year following the approval of the maximum price considered annually by the PGS by 31 March	Number of monitoring reports per licensee on the implementation of Maximum Prices considered by the relevant committee or the Energy Regulator within the stated timeframe	1	1	4 ³⁵	1	1	1	1

b) Indicators, Annual and Quarterly Targets

OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS	QUARTERLY TARGETS			
			Q1	Q2	Q3	Q4
1. Twelve monthly volume balance reports assessed and analysis reports considered quarterly by the PGS	Number of monthly volume balance reports assessed and analysis reports considered by the relevant committee or the Energy Regulator within the stated timeframe	12	3	3	3	3

³⁵The monitoring of the implementation of the maximum prices was carried out quarterly instead of annually. This was because of the problems encountered with the methodology.

OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS	QUARTERLY TARGETS			
			Q1	Q2	Q3	Q4
2. One audit conducted on the ROMPCO pipeline according to the compliance framework and audit report considered annually by the PGS by 31 March	Number of audits conducted on the ROMPCO pipeline according to the compliance frameworks and audit reports considered by the relevant committee or the Energy Regulator within the stated timeframe	1	-	-	-	1
3. Forty five inspections conducted, non-compliance notices issued (where necessary) and quarterly inspection reports considered by the PGS	Number of inspections conducted, non-compliance notices issued (where necessary) and inspection reports considered by the relevant committee or the Energy Regulator within the stated timeframe	45	10	20	10	5
4. Three monitoring reports on the implementation of transmission tariffs (one each for ROMPCO, Transnet and Sasol Gas) considered annually by the PGS by 31 March, after one year following the approval of the transmission tariff	Number of monitoring reports on the implementation of transmission tariffs considered by the relevant committee or the Energy Regulator within the stated timeframe	3	-	-	-	3
5. Four reports (one for each licensee) on the implementation of the RRM in 2019/20 considered annually by the PGS/REC by 31 March	Number of reports on the implementation of the RRM for the preceding financial year considered by the relevant committee or the Energy Regulator within the stated timeframe	4	-	-	-	4
6. One monitoring report on the implementation of Maximum Prices per licensee after one year following the approval of the maximum price considered annually by the PGS by 31 March	Number of monitoring reports per licensee on the implementation of Maximum Prices considered by the relevant committee or the Energy Regulator within the stated timeframe	1	-	-	-	1



1.3.1.3. Petroleum Pipelines Industry Regulation

a) Outcomes, Outputs, Performance Indicators and Targets

OUTCOMES	OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS						
			Audited performance			Estimated performance	MTEF Period		
			2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Infrastructure utilisation and third-party access monitored in the petroleum pipeline industry	1. Two reports on trends regarding utilisation of storage facilities and third-party access considered annually by PPS by 30 September and 31 March	Number of reports on trends regarding utilisation of storage facilities and third-party access, considered by the relevant committee or the Energy Regulator within the stated timeframe	2	2	2	2	2	2	2
	2. One report on the implementation of the methodology to determine uncommitted capacity considered annually by the PPS by 31 March	Number of reports on the implementation of the methodology to determine uncommitted capacity considered by the relevant committee or the Energy Regulator within the stated timeframe	New target	New target	Reviewed methodology to determine uncommitted capacity considered by PPS by 31 March 2019	1	1	1	1
Development of infrastructure monitored in the petroleum pipeline industry	3. Four reports on the construction of new facilities considered quarterly by the PPS	Number of reports on the construction of new facilities considered by the relevant committee or the Energy Regulator within the stated timeframe	4	4	4	4	4	4	4
Licensees' in the petroleum pipeline industry compliance with statutory reporting requirements monitored	4. Four reports on licensees' compliance with statutory reporting requirements considered quarterly by the PPS	Number of reports on licensees' compliance with statutory reporting requirements considered by the relevant committee or the Energy Regulator within the stated timeframe	4	4	4	4	4	4	4

b) Indicators, Annual and Quarterly Targets

OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS	QUARTERLY TARGETS			
			Q1	Q2	Q3	Q4
1. Two reports on trends regarding utilisation of storage facilities and third-party access considered annually by PPS by 30 September and 31 March	Number of reports on trends regarding utilisation of storage facilities and third-party access, considered by the relevant committee or the Energy Regulator within the stated timeframe	2	-	1	-	1
2. One report on the implementation of the methodology to determine uncommitted capacity considered annually by the PPS by 31 March	Number of reports on the implementation of the methodology to determine uncommitted capacity considered by the relevant committee or the Energy Regulator within the stated timeframe	1	-	-	-	1
3. Four reports on the construction of new facilities considered quarterly by the PPS	Number of reports on the construction of new facilities considered by the relevant committee or the Energy Regulator within the stated timeframe	4	1	1	1	1
4. Four reports on licensees' compliance with statutory reporting requirements considered quarterly by the PPS	Number of reports on licensees' compliance with statutory reporting requirements considered by the relevant committee or the Energy Regulator within the stated timeframe	4	1	1	1	1



1.3.2. EXPLANATION OF PLANNED PERFORMANCE OVER THE MEDIUM TERM PERIOD

The planned output is in line with one of the regulatory functions of NERSA, as contained in relevant legislation, namely:

- Monitoring and enforcing compliance with licence conditions

1.3.3. PROGRAMME RESOURCE CONSIDERATIONS

The budget for activities relating to the regulation of the energy industry is based on a ring-fencing methodology that was approved to comply with section 13 of the National Energy Regulator Act, 2004 (Act No. 40 of 2004). The methodology is based on direct employment cost as a basis of common costs apportionment. Direct costs are allocated directly to the respective industry.

The table below indicates the approved staff complement and the approved budget for 2020/21 for Programme 3: Compliance monitoring and enforcement

REGULATED INDUSTRY	RELEVANT STRUCTURES	STAFF COMPLEMENT	BUDGET (R)	% ALLOCATION
Electricity	Electricity Regulation	3	1 670 941	20%
	Electricity licencing, Compliance, and Dispute Resolution	34	10 704 651	30%
	Electricity Infrastructure Planning	13	14 731 521	80%
Piped-Gas	Piped-Gas Regulation	5	2 011 221	20%
	Piped-Gas Licensing, Compliance and Dispute Resolution	11	5 100 293	40%
	Piped-Gas Competition and Markets	4	1 381 974	30%
Petroleum Pipelines	Petroleum Pipelines Regulation	6	1 977 669	20%
	Petroleum Licensing, Compliance and Dispute Resolution	9	4 395 145	40%

Note: The % allocation is based on the staff complement of the Organisation in line with the ring-fencing methodology.

Please refer to Part D: Funding for NERSA for the detailed budget.

1.3.4. KEY RISKS

OUTCOMES	KEY RISK	RISK MITIGATION
Quality and reliable level of electricity supply	<ul style="list-style-type: none"> • Shortage of primary energy supply • Regulatory uncertainty 	<ul style="list-style-type: none"> • Conduct performance-based generation audits of Eskom's generation fleet
Supply of 120m GJ p.a. from Mozambique to South Africa (in terms of Schedule One of the Agreement)	<ul style="list-style-type: none"> • Shortage of primary energy supply • Highly concentrated environment • Depletion of gas from the gas fields in Mozambique 	<ul style="list-style-type: none"> • Continued monitoring and enforcement of compliance with Sasol Gas' supply obligations Continued regulatory advocacy aimed at harmonising cross border activities (audits, methodologies)
Sustainable and safe piped-gas industry by enforcing compliance with licence conditions	<ul style="list-style-type: none"> • Safety and environment at risk 	<ul style="list-style-type: none"> • Enforcement of compliance
Compliance with approved transmission tariffs and approved Maximum Prices	<ul style="list-style-type: none"> • Rising energy tariffs and prices 	<ul style="list-style-type: none"> • Enforcement of compliance with tariff and maximum price decisions
Infrastructure utilisation and third-party access monitored in the petroleum pipeline industry	<ul style="list-style-type: none"> • High barriers to entry 	<ul style="list-style-type: none"> • Enforcement of third-party access
Development of infrastructure monitored in the petroleum pipeline industry	<ul style="list-style-type: none"> • Slow rate of investment in energy infrastructure to meet the demand 	<ul style="list-style-type: none"> • Annual reporting in the infrastructure development



1.4. PROGRAMME 4: DISPUTE RESOLUTION, INCLUDING MEDIATION, ARBITRATION AND HANDLING OF COMPLAINTS

1.4.1. INDUSTRY SPECIFIC SUB-PROGRAMMES

The programme purpose is to ensure that disputes and complaints between licensees or between licensees and customers or end-users are managed effectively and settled in a manner that is appropriate. This programme will also ensure that when needed, any mediation or arbitration required will be done within prescribed procedures.

1.4.1.1. Electricity Industry Regulation

a) Outcomes, Outputs, Performance Indicators and Targets

OUTCOMES	OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS						
			Audited performance			Estimated performance	MTEF Period		
			2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Fair balance between the needs of all stakeholders	1. 87% of disputes/complaints including initiated investigations closed within 120 working days from receipt	% of disputes/complaints, including initiated investigations, closed within the stated timeframe	80%	80%	99% ³⁷	85%	87%	87%	89%
	2. One report on the trends regarding to the status of disputes and complaints in the electricity industry considered annually by the ELS/REC by 31 March	Number of reports on the trends regarding to the status of disputes and complaints in the electricity industry considered by the relevant committee or the Energy Regulator within the stated timeframe	1	1	1	1	1	1	1

b) Indicators, Annual and Quarterly Targets

OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS	QUARTERLY TARGETS			
			Q1	Q2	Q3	Q4
1. 87% of disputes/complaints including initiated investigations closed within 120 working days from receipt ³⁶	% of disputes/complaints, including initiated investigations, closed within the stated timeframe	87%	87%	87%	87%	87%
2. One report on the trends regarding to the status of disputes and complaints in the electricity industry considered annually by the ELS/REC by 31 March	Number of reports on the trends regarding to the status of disputes and complaints in the electricity industry considered by the relevant committee or the Energy Regulator within the stated timeframe	1	-	-	-	1

1.4.1.2. Piped-Gas Industry Regulation

a) Outcomes, Outputs, Performance Indicators and Targets

OUTCOMES	OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS						
			Audited performance			Estimated performance	MTEF Period		
			2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Fairness and equity in the piped-gas market	1. 50% of complaint investigations completed within 12 months and a report on findings considered by the PGS	% of complaint investigations completed within 12 months and a report on findings considered by the relevant committee or the Energy Regulator within the stated timeframe	No complaint investigation needed to be completed in the reporting period	50%	No complaint investigation needed to be completed in the reporting period	50%	50%	50%	50%
	2. 50% of initiated investigations completed within 12 months and a report on findings considered by the PGS	% of initiated investigations completed within 12 months and a report on findings considered by the relevant committee or the Energy Regulator within the stated timeframe	50%	100%	100%	50%	50%	50%	50%

³⁶The number of days were amended from 180 to 120 working days to be aligned with the approved Dispute Resolution Procedure.

³⁷The planned target was 85%

³⁸The number of days were amended from 180 to 120 working days to be aligned with the approved Dispute Resolution Procedure.


b) Indicators, Annual and Quarterly Targets

OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS	QUARTERLY TARGETS			
			Q1	Q2	Q3	Q4
1. 50% of complaint investigations completed within 12 months and a report on findings considered by the PGS	% of complaint investigations completed within 12 months and a report on findings considered by the relevant committee or the Energy Regulator within the stated timeframe	50%	50%	50%	50%	50%
2. 50% of initiated investigations completed within 12 months and a report on findings considered by the PGS	% of initiated investigations completed within 12 months and a report on findings considered by the relevant committee or the Energy Regulator within the stated timeframe	50%	50%	50%	50%	50%

1.4.1.3. Petroleum Pipelines Industry Regulation

a) Outcomes, Outputs, Performance Indicators and Targets

OUTCOMES	OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS						
			Audited performance			Estimated performance	MTEF Period		
			2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Efficient, effective, sustainable and orderly development, operation and use of petroleum pipelines infrastructure	1. 100% of complaints investigated and report considered by the PPS within 6 months of receipt of complete information from relevant parties	% of complaints investigated and report considered by the relevant committee or the Energy Regulator within the stated timeframe	100%	No complaints were received	No complaints were received	100%	100%	100%	100%

b) Indicators, Annual and Quarterly Targets

OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS	QUARTERLY TARGETS			
			Q1	Q2	Q3	Q4
1. 100% of complaints investigated considered by the PPS within 6 months of receipt of complete information from relevant parties	% of complaints investigated and report considered by the relevant committee or the Energy Regulator within the stated timeframe	100%	100%	100%	100%	100%



1.4.2. EXPLANATION OF PLANNED PERFORMANCE OVER THE MEDIUM TERM PERIOD

The planned output is in line with one of the regulatory functions of NERSA, as contained in relevant legislation, namely:

- Dispute resolution including mediation, arbitration and the handling of complaints.

1.4.3. PROGRAMME RESOURCE CONSIDERATIONS

The budget for activities relating to the regulation of the energy industry is based on a ring-fencing methodology that was approved to comply with section 13 of the National Energy Regulator Act, 2004 (Act No. 40 of 2004). The methodology is based on direct employment cost as a basis of common costs apportionment. Direct costs are allocated directly to the respective industry.

The table below indicates the approved staff complement and the approved budget for 2020/21 for Programme 4: Dispute resolution including mediation, arbitration and the resolution of complaints:

REGULATED INDUSTRY	RELEVANT STRUCTURES	STAFF COMPLEMENT	BUDGET (R)	% ALLOCATION
Electricity	Electricity Regulation	3	1 670 941	20%
	Electricity licencing, Compliance, and Dispute Resolution	34	10 704 651	30%
Piped-Gas	Piped-Gas Regulation	5	2 011 221	20%
	Piped-Gas Licensing, Compliance and Dispute Resolution	11	2 550 146	20%
	Piped-Gas Competition and Markets	4	1 381 974	30%
Petroleum Pipelines	Petroleum Pipelines Regulation	6	1 977 669	20%
	Petroleum Licensing, Compliance and Dispute Resolution	9	2 197 573	20%

Note: The % allocation is based on the staff complement of the Organisation in line with the ring-fencing methodology.

Please refer to Part D: Funding for NERSA for the detailed budget.

1.4.4. KEY RISKS

OUTCOMES	KEY RISK	RISK MITIGATION
Fair balance between the needs of all stakeholders in the electricity industry	<ul style="list-style-type: none"> • Rising energy tariffs and prices 	<ul style="list-style-type: none"> • Conduct costumer education programmes focusing on electricity price increases
Fairness and equity in the piped-gas market	<ul style="list-style-type: none"> • Gas supply interruptions • Highly concentrated environment • Dominance of sole supplier 	<ul style="list-style-type: none"> • Continued monitoring and enforcement of compliance with licence conditions, Gas Act and applicable Methodologies
Efficient, effective, sustainable and orderly development, operation and use of petroleum pipelines infrastructure	<ul style="list-style-type: none"> • Slow rate of investment in energy infrastructure to meet the demand • Highly concentrated environment • Regulatory uncertainty • High barriers to entry 	<ul style="list-style-type: none"> • Regulatory advocacy on the need for an investment friendly regulatory framework



1.5.1. INDUSTRY SPECIFIC SUB-PROGRAMMES

1.5.1.1. Electricity Industry Regulation

a) Outcomes, Outputs, Performance Indicators and Targets

OUTCOMES	OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS						
			Audited performance			Estimated performance	MTEF Period		
			2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Non-discriminatory access to and a safe and reliable operation of the electricity infrastructure	1. 100% of applications from the ESI <u>requiring exemption</u> to the South African grid code, considered by the ELS/REC within 3 months ³⁹ from receipt of complete information	% of applications from the ESI <u>requiring exemptions</u> to the South African grid code, considered by the relevant committee or the Energy Regulator within the stated timeframe	100%	74%	100%	100%	100%	100%	100%
	2. 100% of applications from the ESI <u>requiring amendment</u> to the South African grid code, considered by the ELS/REC within 3 months ⁴⁰ from receipt of complete information	% of applications from the ESI <u>requiring amendment</u> to the South African grid code, considered by the relevant committee or the Energy Regulator within the stated timeframe	100%	100%	100%	100%	100%	100%	100%
Regulatory certainty within the electricity industry	3. One report on regulatory advocacy aimed at improvement of the regulatory framework provided through legislation, regulation and government policies considered annually by the ELS by 31 March	Number of reports on regulatory advocacy aimed at improvement of the regulatory framework provided through legislation, regulation and government policies considered by the relevant committee or the Energy Regulator within stated timeframe	New target	New target	New target	New target	1	1	1

³⁹This time frame was changed from 60 working days to 3 months due to the increased number of requests from the Renewable Energy companies. The challenge is that the Grid is not was designed for renewables. It is being updated to deal with renewables and the changing industry.

⁴⁰This time frame was changed from 60 working days to 3 months due to the increased number of requests from the Renewable Energy companies. The challenge is that the Grid is not was designed for renewables. It is being updated to deal with renewables and the changing industry.

b) Indicators, Annual and Quarterly Targets

OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS	QUARTERLY TARGETS			
			Q1	Q2	Q3	Q4
1. 100% of applications from the ESI <u>requiring exemption</u> to the South African grid code, considered by the ELS/REC within 3 months from receipt of complete information	% of applications from the ESI <u>requiring exemptions</u> to the South African grid code, considered by the relevant committee or the Energy Regulator within the stated timeframe	100%	100%	100%	100%	100%
2. 100% of applications from the ESI <u>requiring amendment</u> to the South African grid code, considered by the ELS/REC within 3 months from receipt of complete information	% of applications from the ESI <u>requiring amendment</u> to the South African grid code, considered by the relevant committee or the Energy Regulator within the stated timeframe	100%	100%	100%	100%	100%
3. One report on regulatory advocacy aimed at improvement of the regulatory framework provided through legislation, regulation and government policies considered annually by the ELS by 31 March	Number of reports on regulatory advocacy aimed at improvement of the regulatory framework provided through legislation, regulation and government policies considered by the relevant committee or the Energy Regulator within stated timeframe	1	-	-	-	1



1.5.1.2. Piped-Gas Industry Regulation

a) Outcomes, Outputs, Performance Indicators and Targets

OUTCOMES	OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS						
			Audited performance			Estimated performance	MTEF Period		
			2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Regulatory certainty in the piped-gas market	1. One report on the review of the framework for conducting adequacy of competition considered by the PGS by 31 March 2021	Number reports on the review of the framework for conducting adequacy of competition considered by the relevant committee or the Energy Regulator within the stated timeframe	Guidelines for Third Party Access on uncommitted capacity in ROMPCO approved by the PGS	1 report on a set of guide-lines to stream-line application process-es, in the past considered by the PGS on 19 February 2018 and published on the website	1 report on gas pricing strategy and an update of review of the Methodology was considered by the PGS on 19 February 2019.	1 report on the review of the Maximum Pricing Methodology considered by the PGS/REC by 31 March 2020	1	1 report on the review of the tariffs guide-lines considered by the ER by 31 March 2022	1 report on the review of the adequacy of competition in the piped-gas industry considered by the PGS by 31 March 2023
	2. One report on regulatory advocacy on the review of licensing rules considered by the PGS by 31 March 2022	Number of reports on regulatory advocacy on the review of licensing rules considered by the relevant committee or the Energy Regulator within the stated time-frame	New target	New target	New target	New target	-	1	-
Effective regulation of the piped-gas industry	3. One report on gas regulatory advocacy aimed at improvement of the regulatory framework provided through legislation, regulation and government policies considered annually by the PGS by 31 March	Number of reports on gas regulatory advocacy aimed at improvement of the regulatory framework provided through legislation, regulation and government policies considered by the relevant committee or the Energy Regulator within the stated timeframe	1	1	1	1	1	1	1

OUTCOMES	OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS						
			Audited performance			Estimated performance	MTEF Period		
			2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
A regulatory environment that facilitates investment in piped-gas infrastructure	4. One report on the implementation of the reviewed mechanism for enforcement of 3rd party access considered annually by the PGS by 31 March	Number of reports on the implementation of the reviewed mechanism for enforcement of 3rd party access considered by the relevant committee or the Energy Regulator	New target	New target	New target	New target	1	1	1

b) Indicators, Annual and Quarterly Targets

OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS	QUARTERLY TARGETS			
			Q1	Q2	Q3	Q4
1. One report on the review of the framework for conducting adequacy of competition in the gas industry considered annually by the PGS by 31 March	Number of reports on the review of the framework for conducting adequacy of competition in the gas industry considered by the relevant committee or the Energy Regulator within the stated timeframe	1	-	-	-	1
2. One report on gas regulatory advocacy aimed at improvement of the regulatory framework provided through legislation, regulation and government policies considered annually by the PGS by 31 March	Number of reports on gas regulatory advocacy aimed at improvement of the regulatory framework provided through legislation, regulation and government policies considered by the relevant committee or the Energy Regulator within the stated timeframe	1	-	-	-	1
3. One report on the implementation of the reviewed mechanism for enforcement of 3rd party access considered annually by the PGS by 31 March	Number of reports on the implementation of the reviewed mechanism for enforcement of 3rd party access considered by the relevant committee or the Energy Regulator within the stated timeframe	1	-	-	-	1



1.5.1.3. Petroleum Pipelines Industry Regulation

a) Outcomes, Outputs, Performance Indicators and Targets

OUTCOMES	OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS						
			Audited performance			Estimated performance	MTEF Period		
			2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Regulatory certainty	1. One report on the monitoring of the implementation of the revised methodology considered annually by the ER by 31 March	Number of reports on the monitoring of the implementation of the tariff methodology considered by the relevant committee or the Energy Regulator within the stated timeframe	Revised tariff methodology was published for public comment	No review needed.	Prudency Guidelines considered by the ER by 31 March 2019	Reviewed Tariff Methodology incorporating prudency guidelines, considered by the ER by 31 March 2020	1	1	1
Regulatory dispensation	2. One report on contributions towards alignment between relevant Petroleum legislation and regulations and government policies considered annually by the PPS by 31 March	Number of reports on contributions towards alignment between relevant Petroleum legislation and regulations and government policies considered by the relevant committee or the Energy Regulator within the stated timeframe	1	1	1	1	1	1	1

b) Indicators, Annual and Quarterly Targets

OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS	QUARTERLY TARGETS			
			Q1	Q2	Q3	Q4
1. One report on the monitoring of the implementation of the revised methodology considered annually by the ER by 31 March	Number of reports on the monitoring of the implementation of the tariff methodology considered by the relevant committee or the Energy Regulator within the stated timeframe	1	-	-	-	1
2. One report on contributions towards alignment between relevant Petroleum legislation and regulations and government policies considered annually by the PPS by 31 March	Number of reports on contributions towards alignment between relevant Petroleum legislation and regulations and government policies considered by the relevant committee or the Energy Regulator within the stated timeframe	1	-	-	-	1



1.5.2. EXPLANATION OF PLANNED PERFORMANCE OVER THE MEDIUM TERM PERIOD

The planned output is in line with one of the regulatory functions of NERSA, as contained in relevant legislation, namely:

- Setting of rules, guidelines and codes for the regulation of the electricity, piped-gas and petroleum pipelines industries.

1.5.3. PROGRAMME RESOURCE CONSIDERATIONS

The budget for activities relating to the regulation of the energy industry is based on a ring-fencing methodology that was approved to comply with section 13 of the National Energy Regulator Act, 2004 (Act No. 40 of 2004). The methodology is based on direct employment cost as a basis of common costs apportionment. Direct costs are allocated directly to the respective industry.

The table below indicates the approved staff complement and the approved budget for 2020/21 for Programme 5: Setting of rules, guides and codes for regulation

REGULATED INDUSTRY	RELEVANT STRUCTURES	STAFF COMPLEMENT	BUDGET (R)	% ALLOCATION
Electricity	Electricity Regulation	3	1 670 941	20%
	Electricity Infrastructure Planning	13	1 841 440	10%
Piped-Gas	Piped-Gas Regulation	5	2 011 221	20%
	Piped-Gas Competition and Markets	4	1 842 632	40%
Petroleum Pipelines	Petroleum Pipelines Regulation	6	1 977 669	20%

Note: The % allocation is based on the staff complement of the Organisation in line with the ring-fencing methodology.

Please refer to Part D: Funding for NERSA for the detailed budget.

1.5.4. KEY RISKS

OUTCOMES	KEY RISK	RISK MITIGATION
Non-discriminatory access to and a safe and reliable operation of the electricity infrastructure	<ul style="list-style-type: none"> • Shortage of primary energy supply 	<ul style="list-style-type: none"> • Conduct customer education programmes focusing on electricity price increases
Regulatory certainty in the piped-gas market	<ul style="list-style-type: none"> • Delayed finalisation of legislative amendments and policy objectives • Slow rate of investment in energy infrastructure to meet the demand. 	<ul style="list-style-type: none"> • Regulatory advocacy on legislative amendments • Periodic review of Maximum Price Methodology and Tariff Guidelines for alignment with industry developments
Effective regulation of the piped-gas industry		
Regulatory certainty in the petroleum pipeline industry	<ul style="list-style-type: none"> • Slow rate of investment in energy infrastructure to meet demand • Rising energy tariffs and prices 	<ul style="list-style-type: none"> • Facilitate investment by ensuring that the tariff methodology allows investors to earn profit commensurate with risk • Encourage efficiencies by incorporating efficiency targets in the tariff methodology



1.6. PROGRAMME 6: ADMINISTRATION (ESTABLISHING NERSA AS AN EFFICIENT AND EFFECTIVE REGULATOR)

The programme purpose is to ensure that systems, processes, procedures and resources are in place that will put NERSA in the position to appropriately advise policy makers on any matter relating to the effective and efficient regulation of the electricity, piped-gas and petroleum pipelines industries, thereby contributing towards the broader government objectives aimed at the economic development of the country. The purpose includes the development to skills, both internally and externally, in energy regulation.

1.6.1. INDUSTRY SPECIFIC SUB-PROGRAMMES

1.6.1.1. Electricity Industry Regulation

a) Outcomes, Outputs, Performance Indicators and Targets

OUTCOMES	OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS						
			Audited performance			Estimated performance	MTEF Period		
			2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Security of Supply	1. One system Adequacy Report considered annually by the ELS/REC by 31 March	Number of System Adequacy Reports considered by the relevant committee or the Energy Regulator within the stated timeframe	1	1	1	1	1	1	1
	2. One report on refurbishments and upgrades of electricity infrastructure considered annually by the ELS by 31 March	Number of reports on refurbishments and upgrades of electricity infrastructure considered by the relevant committee or the Energy Regulator within the stated timeframe	New target	New target	New target	New target	1	1	1
Empowered stakeholders with relevant energy industry as well as economic regulatory knowledge and information	3. Sixty customer education programmes undertaken annually by 31 March	Number of customer education programmes undertaken within the stated timeframe	52	45	56	55	60	65	65
	4. One consolidated report on the customer education programmes undertaken considered annually by the ELS/REC by 31 March	Number of consolidated reports on the customer education programmes undertaken considered by the relevant committee or the Energy Regulator within the stated timeframe	New target	New target	New target	New target	1	1	1

b) Indicators, Annual and Quarterly Targets

OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS	QUARTERLY TARGETS			
			Q1	Q2	Q3	Q4
1. One system Adequacy Report considered annually by the ELS/REC by 31 March	Number of System Adequacy Reports considered by the relevant committee or the Energy Regulator within the stated timeframe	1	-	-	-	1
2. One report on refurbishments and upgrades of electricity infrastructure considered annually by the ELS by 31 March	Number of reports on refurbishments and upgrades of electricity infrastructure considered by the relevant committee or the Energy Regulator within the stated timeframe	1	-	-	-	1
5. Sixty customer education programmes undertaken annually by 31 March	Number of customer education programmes undertaken within the stated timeframe	60	15	15	15	15
6. One consolidated report on the customer education programmes undertaken considered annually by the ELS/REC by 31 March	Number of consolidated reports on the customer education programmes undertaken considered by the relevant committee or the Energy Regulator within the stated timeframe	1	-	-	-	1



1.6.1.2. Piped-Gas Industry Regulation

a) Outcomes, Outputs, Performance Indicators and Targets

OUTCOMES	OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS						
			Audited performance			Estimated performance	MTEF Period		
			2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Dialogue with stakeholders in the gas market in order to facilitate the development of the market	1. One report on stakeholder workshops/meetings considered annually by the PGS by 31 March	Number of reports on stakeholder workshops / meetings considered by the relevant committee or the Energy Regulator within the stated timeframe	1	1	1	1	1	1	1
Understanding of and monitor new developments in the gas industry	2. Two reports on new developments in the gas industry considered annually by the PGS by 30 September and 31 March	Number of reports on new developments in the gas industry considered by the relevant committee or the Energy Regulator within the stated timeframe	2	2	3 ⁴¹	2	2	2	2
	3. One report on the geographic spread of gas infrastructure considered annually by the PGS by 31 March	Number of reports on the geographic spread of gas infrastructure considered by the relevant committee or the Energy Regulator within the stated timeframe	New target	New target	New target	New target	1	1	1
Regulatory certainty within the piped-gas industry	4. Reviewed framework for conducting adequacy of competition in the gas industry considered by the Energy Regulator by 31 March 2021	Reviewed framework for conducting adequacy of competition in the gas industry considered by the relevant committee or the Energy Regulator within the stated timeframe	New target	New target	New target	New target	Reviewed framework	-	Reviewed framework

⁴¹The planned target was 2 reports. The 3rd report was produced due to major developments in the gas industry that took place in the last quarter of the financial year.

b) Indicators, Annual and Quarterly Targets

OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS	QUARTERLY TARGETS			
			Q1	Q2	Q3	Q4
1. One report on stakeholder workshops/meetings considered annually by the PGS by 31 March	Number of reports on stakeholder workshops / meetings considered by the relevant committee or the Energy Regulator within the stated timeframe	1	-	-	-	1
2. Two reports on new developments in the gas industry considered annually by the PGS by 30 September and 31 March	Number of reports on new developments in the gas industry considered by the relevant committee or the Energy Regulator within the stated timeframe	2	-	1	-	1
3. One report on the geographic spread of gas infrastructure considered annually by the PGS by 31 March	Number of reports on the geographic spread of gas infrastructure considered by the relevant committee or the Energy Regulator within the stated timeframe	1	-	-	-	1
4. Reviewed framework for conducting adequacy of competition in the gas industry considered by the Energy Regulator by 31 March 2021	Reviewed framework for conducting adequacy of competition in the gas industry considered by the relevant committee or the Energy Regulator within the stated timeframe	Reviewed framework	-	-	-	Reviewed framework



1.6.1.3. Petroleum Pipelines Industry Regulation

a) Outcomes, Outputs, Performance Indicators and Targets

OUTCOMES	OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS						
			Audited performance			Estimated performance	MTEF Period		
			2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Security of Supply promoted	1. Two reports on the inland security of supply considered annually by the PPS by 30 September and 31 March	Number of reports on the inland security of supply considered by relevant committee or the Energy Regulator within the stated timeframe	2	2	2	2	2	2	2
Access to petroleum infrastructure	2. One report on the percentage utilisation of pipelines, storage facilities and loading facilities and third party access considered annually by the PPS by 31 March	Number of reports on the percentage utilisation of pipelines, storage facilities and loading facilities and third party access considered by the relevant committee or the Energy Regulator within the stated timeframe	New target	New target	New target	New target	1	1	1
A regulatory environment that provides regulatory certainty and facilitates investment in petroleum pipeline infrastructure	3. One report on regulatory advocacy aimed at improvement of the regulatory framework provided through legislation, regulation and government policies for the petroleum pipelines industry considered annually by PPS by 31 March	Number of reports on regulatory advocacy aimed at improvement of the regulatory framework provided through legislation, regulation and government policies for the petroleum pipelines industry considered by the relevant committee or the Energy Regulator within the stated timeframe	New target	New target	New target	New target	1	1	1
A competitive petroleum pipelines industry	4. One report on the geographic spread of petroleum pipelines infrastructure considered annually by the PPS by 31 March	Number of reports on the geographic spread of petroleum pipelines infrastructure considered by the relevant committee or the Energy Regulator within the stated timeframe	New target	New target	New target	New target	1	1	1

b) Indicators, Annual and Quarterly Targets

OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS	QUARTERLY TARGETS			
			Q1	Q2	Q3	Q4
1. Two reports on the inland security of supply considered annually by the PPS by 30 September and 31 March	Number of reports on the inland security of supply considered by relevant committee or the Energy Regulator within the stated timeframe	2	-	1	-	1
2. One report on the percentage utilisation of pipelines, storage facilities and loading facilities and third party access considered annually by the PPS by 31 March	Number of reports on the percentage utilisation of pipelines, storage facilities and loading facilities and third party access considered by the relevant committee or the Energy Regulator within the stated timeframe	1	-	-	-	-
3. One report on regulatory advocacy aimed at improvement of the regulatory framework provided through legislation, regulation and government policies for the petroleum pipelines industry considered annually by PPS by 31 March	Number of reports on regulatory advocacy aimed at improvement of the regulatory framework provided through legislation, regulation and government policies for the petroleum pipelines industry considered by the relevant committee or the Energy Regulator within the stated timeframe	1	-	-	-	1
4. One report on the geographic spread of petroleum pipelines infrastructure considered annually by the PPS by 31 March	Number of reports on the geographic spread of petroleum pipelines infrastructure considered by the relevant committee or the Energy Regulator within the stated timeframe	1	-	-	-	1



1.6.2. SUB-PROGRAMMES

1.6.2.1. Transversal Regulatory

a) Outcomes, Outputs, Performance Indicators and Targets

OUTCOMES	OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS						
			Audited performance			Estimated performance	MTEF Period		
			2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
An enabling environment for the benefit of internal and external stakeholders with a skilled workforce that is empowered to work in a complex and ambiguous environment	1. One progress report on the implementation of the Regulatory Reporting Manuals regarding the Standard Chart of Accounts (SCOA) for the municipalities considered annually by the REC by 31 March	Number of progress report on the implementation of the Regulatory Reporting Manuals regarding the Standard Chart of Accounts (SCOA) for the municipalities considered by the relevant committee or the Energy Regulator within the stated timeframe	1	1	1	1	1	1	1
	2. One report on the impact of global, regional and local energy trends on NERSA's business considered annually by the REC by 31 May 2020	Number of reports on the impact of global, regional and local energy trends on NERSA's business considered by the relevant committee or the Energy Regulator within the stated timeframe	1	1	1	1	1	1	1
	3. Two reports on the implementation of the Regulatory Reporting Manuals for Non-financial and financial information considered annually by the REC by 30 September and 31 March	Number of reports on the implementation of the Regulatory Reporting Manuals for Non-financial and financial information, considered by the relevant committee or the Energy Regulator within the stated timeframe	2	2	2	2	2	2	2
	4. Two reports on partnership creation to position NERSA as a recognised regulator nationally, regionally and internationally considered annually by the REC by 30 September and 31 March	Number of reports on partnership creation to position NERSA as a recognised regulator nationally, regionally and internationally considered by the relevant committee or the Energy Regulator within the stated timeframe	New target	New target	New target	2	2	2	2

b) Indicators, Annual and Quarterly Targets

OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS	QUARTERLY TARGETS			
			Q1	Q2	Q3	Q4
1. One progress report on the implementation of the Regulatory Reporting Manuals regarding the Standard Chart of Accounts (SCOA) for the municipalities considered annually by the REC by 31 March	Number of progress report on the implementation of the Regulatory Reporting Manuals regarding the Standard Chart of Accounts (SCOA) for the municipalities considered by the relevant committee or the Energy Regulator within the stated timeframe	1	-	-	-	1
2. One report on the impact of global, regional and local energy trends on NERSA's business considered annually by the REC by 31 May 2020	Number of reports on the impact of global, regional and local energy trends on NERSA's business considered by the relevant committee or the Energy Regulator within the stated timeframe	1	1	-	-	1
3. Two reports on the implementation of the Regulatory Reporting Manuals for Non-financial and financial information considered annually by the REC by 30 September and 31 March	Number of reports on the implementation of the Regulatory Reporting Manuals for Non-financial and financial information, considered by the relevant committee or the Energy Regulator within the stated timeframe	2	-	1	-	1
4. Two reports on partnership creation to position NERSA as a recognised regulator nationally, regionally and internationally considered annually by the REC by 30 September and 31 March	Number of reports on partnership creation to position NERSA as a recognised regulator nationally, regionally and internationally considered by the relevant committee or the Energy Regulator within the stated timeframe	2	-	1	-	1



1.6.2.2. Organisational

a) Outcomes, Outputs, Performance Indicators and Targets

OUTCOMES	OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS						
			Audited performance			Estimated performance	MTEF Period		
			2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
An enabling environment for the benefit of internal and external stakeholders with a skilled workforce that is empowered to work in a complex and ambiguous environment	1. Two reports on the implementation of the Employment Equity Plan considered annually by the HRRC by 30 September and 31 March	Number of reports on the implementation of the Employment Equity Plan considered by the relevant committee or the Energy Regulator within the stated time-frame	2	2	2	2	2	2	2
	2. 50% of women in management positions	% of women in management positions	New target	New target	52%	50%	50%	50%	50%
	3. 2% of people with disabilities employed	% of people with disabilities employed	New target	New target	2%	2%	2%	2%	2%
	4. Four reports on the implementation of the Youth Employment Accord considered quarterly by the HRRC	Number of reports on the implementation of the Youth Employment Accord considered by the relevant committee or the Energy Regulator within the stated time-frame	4	4	4	4	4	4	4
	5. One report on the implementation of the Learnership and Internship Programmes considered annually by the HRRC by 31 March	Number of reports on the implementation of the Learnership and Internship Programmes considered by the relevant committee or the Energy Regulator within the stated timeframe	1	1	1	1	1	1	1
	6. One report on the implementation of the bursary programme for qualifying external applicants considered annually by the HRRC by 31 March	Number of reports on the implementation of the bursary programme for qualifying external applicants considered by the relevant committee or the Energy Regulator within the stated time-frame	1	1	1	1	1	1	1

OUTCOMES	OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS						
			Audited performance			Estimated performance	MTEF Period		
			2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
	7. Two reports on the design of a regulatory course at an accredited institution of higher learning considered by the HRRC annually by the HRRC by 30 September and 31 March	Number of reports on the design of a regulatory course at an accredited institution of higher learning considered by the relevant committee or the Energy Regulator within the stated time-frame	New target	New target	New target	Planning phase concluded and considered by the HRRC by 31 March 2020	2	2	2
	8. One report on the leadership development programme considered by the HRRC by 31 March 2023	Number of reports on leadership development programme considered by the relevant committee or the Energy Regulator within the stated timeframe	New target	New target	New target	Comprehensive leadership development programme considered by the Energy Regulator by 31 March 2020	-	-	1
	9. One report on the development of a technical regulatory training and development programme considered by the HRRC by 31 March 2021	Number of reports on the development of a technical regulatory training and development programme considered by the relevant committee or the Energy Regulator within the stated time-frame	New target	New target	New target	Comprehensive technical regulatory training and development programme considered by the Energy Regulator by 31 March 2020	1	1	-



OUTCOMES	OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS						
			Audited performance			Estimated performance	MTEF Period		
			2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
	10. Four reports on the progress made regarding certification with an appropriate international standard on quality management considered quarterly by the REC	Number of reports on the progress made regarding certification with an appropriate international standard on quality management, considered by the relevant committee or the Energy Regulator within the stated timeframe	4	4	4	4	4	4	4
	11. Reviewed NERSA Enterprise Development Plan considered by the ER by 31 March 2021 and new target group identified	Reviewed NERSA Enterprise Development Plan considered by the relevant committee or the Energy Regulator within the stated timeframe and new target group identified	New target	New target	NERSA Enterprise Development Plan considered by the ER by 31 March 2019 and relevant black female-owned enterprises identified	4 quarterly reports on the implementation of the NERSA Enterprise Development Plan considered by the ER	Reviewed NERSA Enterprise Development Plan considered by the ER by 31 March 2021 and new target group identified	2 reports on the implementation of the NERSA Enterprise Development Plan considered by the ER	Reviewed NERSA Enterprise Development Plan considered by the ER by 31 March 2021 and new target group identified
	12. 100% implementation of Preferential Procurement Policy Framework with ≥84% procurement over R30 000 awarded to suppliers with a BBBEE status level of 4 or better	% of implementation of Preferential Procurement Policy Framework, with ≥84% procurement over R30 000 awarded to suppliers with a B-BBEE status level of 4 or better	New target	New target	100% with ≥80% procurement over R30 000 awarded to suppliers with a B-BBEE status level of 4 or better	100%, with ≥82% procurement over R30 000 awarded to suppliers with a B-BBEE status level of 4 or better	100%, with ≥84% procurement over R30 000 awarded to suppliers with a B-BBEE status level of 4 or better	100% with ≥86% procurement over R30 000 awarded to suppliers with a B-BBEE status level of 4 or better	100% with ≥88% procurement over R30 000 awarded to suppliers with a B-BBEE status level of 4 or better

OUTCOMES	OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS						
			Audited performance			Estimated performance	MTEF Period		
			2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
	13. One report on the implementation of the stakeholder management plan considered annually by the REC by 31 March	Number of reports on the implementation of the stakeholder management plan considered by the relevant committee or the Energy Regulator within the stated timeframe	New target	New target	New target	1 report on 3-yearly stakeholder survey considered by the REC by 31 March 2020	1	1	1
	14. Audit Report that is not qualified	Unqualified audit	Clean audit	Clean audit	Clean audit	Unqualified audit	Unqualified audit	Unqualified audit	Unqualified audit
	15. 100 % creditors paid within 30 days after all relevant documentation have been received	% of creditors paid within 30 days after all relevant documentation have been received	99%	100%	100%	100%	100%	100%	100%
	16. Four reports on legislative and policy developments impacting on the Regulator considered quarterly by the REC	Number of reports on legislative and policy developments impacting on the Regulator, considered by the relevant committee or the Energy Regulator within the stated timeframe	4	4	4	4	4	4	4



b) Indicators, Annual and Quarterly Targets

OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS	QUARTERLY TARGETS			
			Q1	Q2	Q3	Q4
1. One reports on the implementation of the Employment Equity Plan considered annually by the HRRC by 30 September and 31 March	Number of reports on the implementation of the Employment Equity Plan considered by the relevant committee or the Energy Regulator within the stated timeframe	2	-	1	-	1
2. 50% of women in management positions	% of women in management positions	50%	-	-	-	50%
3. 2% of people with disabilities employed	% of people with disabilities employed	2%	-	-	-	2%
4. Four reports on the implementation of the Youth Employment Accord considered quarterly by the HRRC	Number of reports on the implementation of the Youth Employment Accord considered by the relevant committee or the Energy Regulator within the stated timeframe	4	1	1	1	1
5. One report on the implementation of the Learnership and Internship Programmes considered annually by the HRRC by 31 March	Number of reports on the implementation of the Learnership and Internship Programmes considered by the relevant committee or the Energy Regulator within the stated timeframe	1	-	-	-	1
6. One report on the implementation of the bursary programme for qualifying external applicants considered annually by the HRRC by 31 March	Number of reports on the implementation of the bursary programme for qualifying external applicants considered by the relevant committee or the Energy Regulator within the stated timeframe	1	-	-	-	1
7. Two reports on the design of a regulatory course at an accredited institution of higher learning considered by the HRRC annually by the HRRC by 30 September and 31 March	Number of reports on the design of a regulatory course at an accredited institution of higher learning considered by the relevant committee or the Energy Regulator within the stated timeframe	2	-	1	-	1
8. One report on the development of a technical regulatory training and development programme considered by the HRRC by 31 March 2021	Number of reports on the development of a technical regulatory training and development programme considered by the relevant committee by 31 March relevant committee or the Energy Regulator within the stated timeframe	1	-	-	-	1
9. Four reports on the progress made regarding certification with an appropriate international standard on quality management considered quarterly by the REC	Number of reports on the progress made regarding certification with an appropriate international standard on quality management, considered by the relevant committee or the Energy Regulator within the stated timeframe	4	1	1	1	1

OUTPUTS	OUTPUT INDICATORS	ANNUAL TARGETS	QUARTERLY TARGETS			
			Q1	Q2	Q3	Q4
10. Reviewed NERSA Enterprise Development Plans considered by the ER by 31 March 2021 and new target group identified	Reviewed NERSA Enterprise Development Plan considered by the relevant committee or the Energy Regulator within the stated timeframe and new target group identified	Reviewed NERSA Enterprise Development Plans considered by the ER by 31 March 2021 and new target group identified	-	-	-	Reviewed NERSA Enterprise Development Plans considered by the ER by 31 March 2021 and new target group identified
11. 100% implementation of Preferential Procurement Policy Framework with ≥84% procurement over R30 000 awarded to suppliers with a BBEE status level of 4 or better	% of implementation of Preferential Procurement Policy Framework, with ≥84% procurement over R30 000 awarded to suppliers with a B-BBEE status level of 4 or better	100%,	100%	100%	100%	100%
12. One report on the implementation of the stakeholder management plan considered annually by the REC by 31 March	Number of reports on the implementation of the stakeholder management plan considered by the relevant committee or the Energy Regulator within the stated timeframe	1	-	-	-	1
13. Audit Report that is not qualified	Unqualified audit	Unqualified audit	-	Unqualified audit	-	-
14. 100% of creditors paid within 30 days after all relevant documentation have been received	% of creditors paid within 30 days after all relevant documentation have been received	100%	100%	100%	100%	100%
15. Four reports on legislative and policy developments impacting on the Regulator considered quarterly by the REC	Number of reports on legislative and policy developments impacting on the Regulator, considered by the relevant committee or the Energy Regulator within the stated timeframe	4	1	1	1	1



1.6.3. EXPLANATION OF PLANNED PERFORMANCE OVER THE MEDIUM TERM PERIOD

- a) The planned outputs for the regulated industries subprogrammes are aimed at contributing towards NERSA being recognised as a world-class regulator, through reporting on the status of the regulated industries in order to ensure security of supply.
- b) The outputs for the transversal regulator and organisational subprogrammes are aimed at contributing towards NERSA being recognised as a world-class regulator. This included providing an enabling environment for the effective and efficient regulation of the energy industry.

1.6.4. PROGRAMME RESOURCE CONSIDERATIONS

- a) The budget for activities relating to the regulation of the energy industry is based on a ring-fencing methodology that was approved to comply with section 13 of the National Energy Regulator Act, 2004 (Act No. 40 of 2004). The methodology is based on direct employment cost as a basis of common costs apportionment. Direct costs are allocated directly to the respective industry. 58 21 21
- b) The table below indicates the approved staff complement and the approved budget for 2020/21 for Programme 6: Establishing NERSA as an efficient and effective organisation

REGULATED INDUSTRY	RELEVANT STRUCTURES	STAFF COMPLEMENT	BUDGET (R)	% ALLOCATION
Electricity	FTRM	3	119 413 908	58%
	Finance and Administration	23		
	Corporate Services	38		
	Human Resources	13		
	Specialised Support Units	33		
Piped-Gas	FTRM	3	43 236 070	21%
	Finance and Administration	23		
	Corporate Services	38		
	Human Resources	13		
	Specialised Support Units	33		

REGULATED INDUSTRY	RELEVANT STRUCTURES	STAFF COMPLEMENT	BUDGET (R)	% ALLOCATION
Petroleum Pipelines	FTRM	3	43 236 070	21%
	Finance and Administration	23		
	Corporate Services	38		
	Human Resources	13		
	Specialised Support Units	33		

Note: The % allocation is based on the staff complement of the Organisation in line with the rich-fencing methodology.

Please refer to Part D: Funding for NERSA for the detailed budget.

1.6.5. KEY RISKS

OUTCOMES	KEY RISK	RISK MITIGATION
Security of Supply in the electricity sector	<ul style="list-style-type: none"> Shortage of primary energy supply Regulatory uncertainty 	<ul style="list-style-type: none"> Conduct special generation audits related to the performance of Eskom's generation fleet
Empowered stakeholders with relevant energy industry as well as economic regulatory knowledge and information	<ul style="list-style-type: none"> Increased number of disputes / complaints due to electricity price increases 	<ul style="list-style-type: none"> Conduct special customer education programmes in electricity price increases
Dialogue with stakeholders in the gas market in order to facilitate the development of the market	<ul style="list-style-type: none"> Inadequate understanding of regulatory processes 	<ul style="list-style-type: none"> Continued engagement with stakeholders
Understanding of and monitor new developments in the gas industry	<ul style="list-style-type: none"> Information asymmetry 	<ul style="list-style-type: none"> Continued engagement and research
NERSA established as an efficient and effective regulator	<ul style="list-style-type: none"> Skills shortage 	<ul style="list-style-type: none"> Develop and implement retention and succession planning strategies



PART D: FUNDING FOR NERSA

BUDGET 2020/21 AND FORECAST 2021/22 - 2022/23

FUNDING FOR THE NATIONAL ENERGY REGULATOR OF SOUTH AFRICA

1. In terms of the National Energy Regulator Act, 2004 (Act No. 40 of 2004), the National Energy Regulator of South Africa (NERSA) will be funded through money appropriated by Parliament; levies and licence fees imposed by or under separate legislation; charges for dispute resolution and other services rendered in terms of the National Energy Regulator Act. However, it suffices to say that the most prudent form of funding for all three industries is through levies and license fees.
2. For electricity, it is further provided that its funding will include donations or contributions received from any person or entity, as provided for in section 5B of the Electricity Act, 1987 (Act No. 47 of 1987).
3. Levies from the petroleum pipelines and piped-gas industries are imposed in terms of the Petroleum Pipelines Levies Act, 2004 (Act No. 28 of 2004) and the Gas Regulator Levies Act, 2002 (Act No. 75 of 2002) respectively.
4. Under section 5B of the Electricity Act [which has not been repealed with the operationalisation of the Electricity Regulation Act, 2006 (Act No. 4 of 2006)], the Minister of Mineral Resources and Energy prescribes the electricity licence fees by Notice in the Government Gazette.
5. Under the Petroleum Pipeline Levies Act and the Gas Regulator Levies Act, the Energy Regulator first publishes the intended levies for the public to make representations, considers the representation and submits a report to the Minister of Mineral Resources and Energy on the representations and how the representations affected the levies. After the approval by the Minister of Mineral Resources and Energy in concurrence with the Minister of Finance, the Energy Regulator publishes a Notice in the Government Gazette of the approved levies for at least thirty days before the piped-gas and petroleum pipelines industries start paying the levies.
6. With regard to the electricity industry, the budget for regulating this industry will use the variable of 'net kilowatt-hour generated' to determine the relative percentage contribution of each generation licensee to the licence fees as prescribed by Section 5B of the Electricity Act.
7. In order to calculate the licence fees, the estimated energy production figures for the 2019 calendar year for the Electricity Industry are used. From the energy production figures, the net energy that has been sent out by every electricity generator is calculated (the difference between the gross energy produced and the amount of energy used during the generation process). The unit for this figure is kilowatt-hour. The licence fees are determined by dividing the budget for the electricity industry by the total amount of energy sent out. This provides a figure measured in cents per kilowatt-hour.
8. With regard to the piped-gas industry, the budget for regulating this industry will use the variable of 'gigajoules entered into the system' to determine the relative percentage contribution of each pipeline licensee to the levy. The estimated volumes are obtained from Sasol Gas (Pty) Ltd in this regard.
9. For the piped-gas industry, the levy is payable by the holders of the title to gas as it enters the system licensed by NERSA and is based on gigajoules. The estimated volumes are received from Sasol Gas (Pty) Ltd.
10. With regard to the petroleum pipelines industry, the budget for regulating this industry will use the variable of 'litres entered into the system' to determine the relative percentage contribution of each owner of petroleum to the levy. The estimated volumes are received from Transnet Pipelines.
11. For petroleum pipelines, the levy is payable by the holders of the title to the petroleum product as it enters the system licensed by NERSA and is based on litres.

EXECUTIVE SUMMARY

BUDGET 2020/21

EXECUTIVE SUMMARY

Funding

Funding requirement or the leviable amount is obtained by charging levies/licence fees to the relevant industries. Interest receivable from the banks, other income and refund of surplus funds from previous financial years have been allocated and deducted from the leviable amount in order to calculate the levy/licence fee rate for the 2020/21 budget.

The total funding requirement for the 2020/21 budget is 1.6% lower than the 2019/20 funding requirement. The calculation was completed after taking into account the effects of refunds to the industries and interest receivable.

The forecast funding requirement for the 2021/22 financial year increases by 5.34% and increases by 1.54% in 2022/23 due to changes in refunds to industries and projected increase in expenditure.

The industry levies/licence fees are influenced by changes in volumes, expenditure, other income and refund to industries. In order to refund the regulated industries and to smooth out levy increases over the three-year MTEF period, NERSA will be budgeting for losses over this period. As prescribed by the 2019 Budget Guidelines issued by the National Treasury, the approval by the National Treasury for NERSA to budget for a loss will be sought once the Energy Regulator has approved the budget.

The levies/licence fees for 2020/21 will change as follows compared to the previous financial year:

Table 1: Levy Rates Changes

Industry	Volumes	Industry Operating Expenditure	Support Service Allocation	Capital Expenditure	Interest and Other Income	Refunds to Industry	TOTAL
Electricity	(1.34%)	2.58%	1.64%	(4.74%)	0.88%	0.97%	0.00%
Piped-Gas	0.00%	(0.51%)	1.65%	(4.76%)	0.90%	8.22%	5.50%
Petroleum Pipelines	(3.34%)	(0.60%)	1.79%	(5.15%)	0.97%	6.33%	0.00%

Revenue for the 2020/21 financial year amounts to R362 million, which is 1,7% higher than the R357 million of 2019/20.

Operating Expenditure

Operating expenditure for the 2020/21 financial year amounts to **R374 million**, which is **2.8%** higher than the R363 million of 2019/20. The variance per category can be summarised as follows:

- Advertising, Promotion and Communication is decreasing by **11.5%** because of reduction in advertising.
- Employment cost is increasing by **4.4%** due to cost of living adjustment on gross salaries and remunerations for Regulators Members.
- Facilities Maintenance is decreasing by **10.8%** due to anticipated savings on municipal charges (electricity consumption).
- Office Administration is increasing by **0.6%** due to software licenses and information technology operations.
- Professional fees is increasing by **3.4%** due planned consulting projects
- Travel, Accommodation and Training is increasing by **4.7%** due training costs and travel costs for staff.
- Other expenses is decreasing by **12.5%** mainly due to reduction of Knowledge Centres subscriptions.

Capital Expenditure

Capital expenditure for the 2020/21 financial year amounts to R13.5 million, which is **55.4%** lower than the R30.2 million for 2019/20 due to the completion of the refurbishment project.



CONSOLIDATED SUMMARY

BUDGET 2020/21 INCOME AND EXPENDITURE

ANNUAL BUDGET FOR THE YEAR 2020/21									
CONSOLIDATED INCOME AND EXPENDITURE BUDGET 2020/21 AND FORECAST FOR THE PERIOD 2021/22 AND 2022/23									
		A	B		C	E	1	F	H
		BUDGET	ACTUAL	% Variance (A /B)	APPROVED BUDGET	CONSOLIDATED BUDGET	% Variance (C E)	FORECAST	FORECAST
DESCRIPTION	NOTES	2018/19	2018/19		2019/20	2020/21		2021/22	2022/23
TOTAL INCOME		343 509 397	346 677 980	0,9%	356 503 644	362 470 475	1,7%	368 598 199	374 890 358
License fees from Electricity Industry	1	194 487 085	191 610 857	(1,5%)	205 154 173	207 909 620	1,3%	218 207 253	222 397 743
Levies from Piped-Gas Industry	2	69 355 644	65 190 908	(6,0%)	73 902 240	77 964 905	5,5%	82 767 026	84 335 011
Levies from Petroleum Pipeline Industry	3	68 321 736	69 548 472	1,8%	68 356 705	70 638 400	3,3%	62 835 877	64 304 266
Interest received	4	11 279 888	16 069 802	42,5%	9 023 910	5 865 542	(35,0%)	4 692 433	3 753 947
Rental Income		65 044	49 543	(23,8%)	66 616	72 009	8,1%	75 609	79 390
Registration fees	5	-	3 400	0,0%	-	20 000	100,0%	20 000	20 000
Other Income *		-	4 204 998	0,0%	-	-	0,0%	-	-
TOTAL OPERATING EXPENDITURE		341 667 903	298 888 479	12,5%	363 363 120	373 685 238	2,8%	393 873 064	398 665 223
Advertising, Promotion and Communication	5	17 551 814	17 689 123	(0,8%)	13 475 550	11 920 000	(11,5%)	12 516 000	13 116 768
Employment cost	7	242 516 490	213 600 686	11,9%	254 405 567	265 723 554	4,4%	283 548 453	299 732 571
Facilities Maintenance	8	10 998 075	11 355 339	(3,2%)	11 824 000	10 548 424	(10,8%)	11 075 845	11 607 485
Office Administration	9	13 541 779	12 356 314	8,8%	12 180 057	12 258 879	0,6%	12 871 823	13 489 670
Professional fees	10	24 894 410	16 342 939	34,4%	35 615 433	36 810 085	3,4%	35 615 433	20 637 433
Travel, Accommodation and Training	11	26 582 253	22 760 602	14,4%	29 291 542	30 676 796	4,7%	32 210 636	33 756 746
Other Expenses	12	5 583 082	4 783 476	14,3%	6 570 971	5 747 500	(12,5%)	6 034 875	6 324 549

NET SURPLUS/ (DEFICIT) before Depreciation		1 841 494	47 789 501	2495,1%	(6 859 476)	(11 214 763)	(123,5%)	(25 274 866)	(23 774 866)
Depreciation	14	-	7 606 393	0,0%	-	-	0,0%	-	-
NET SURPLUS/ (DEFICIT) for the period		1 841 494	40 183 108	2082,1%	(6 859 476)	(11 214 763)	(63,5%)	(25 274 866)	(23 774 866)
TOTAL CAPITAL EXPENDITURE	13	40 200 000	28 656 749	28,7%	30 250 000	13 500 000	(55,4%)	14 000 000	15 500 000
Motor vehicles	13,1	800 000	-	100,0%	500 000	-	(100,0%)		
Computer software	13,2	2 650 000	59 030	97,8%	8 000 000	6 000 000	(25,0%)	8 000 000	8 000 000
Office furniture and equipment	13,3	3 500 000	1 388 386	60,3%	2 500 000	1 500 000	(40,0%)	1 000 000	1 000 000
Building improvements		30 000 000	23 586 560	21,4%	16 000 000	3 500 000	(78,1%)	2 000 000	3 500 000
Computer hardware	13,4	3 250 000	3 622 774	(11,5%)	3 250 000	2 500 000	(23,1%)	3 000 000	3 000 000
Funding Requirement (Opex excl Dep + Capex)		381 867 903	327 545 228	(14,2%)	393 613 120	387 185 238	(1,6%)	407 873 064	414 165 223
Cash Flow Mitigating Reserve		56 024 302	50 128 834	10,5%	58 869 332	61 155 065		65 031 187	67 925 124

* Other income in 2018/19 related to refunds from insurance and awards of cost for legal fees relating to previous financial year. These are not expected in 2020/21.



CONSOLIDATED DETAIL

BUDGET 2020/21 INCOME AND EXPENDITURE

ANNUAL BUDGET FOR THE YEAR 2020/21									
CONSOLIDATED -DETAIL									
INCOME AND EXPENDITURE BUDGET 2020/21 AND FORECAST FOR THE PERIOD 2021/22 AND 2022/23									
		A	B		C	E	1	F	H
		BUDGET	ACTUAL	% Variance	APPROVED	CONSOLIDATED	% Variance	FORECAST	FORECAST
DESCRIPTION	NOTES	2018/19	2018/19	(A / B)	2019/20	2020/21	(C E)	2021/22	2022/23
TOTAL INCOME		343 509 397	346 677 980	0,9%	356 503 644	362 470 475	1,7%	368 598 199	374 890 358
License fees from Electricity Industry	1	194 487 085	191 610 857	(1,5%)	205 154 173	207 909 620	1,3%	218 207 253	222 397 743
Levies from Piped-Gas Industry	2	69 355 644	65 190 908	(6,0%)	73 902 240	77 964 905	5,5%	82 767 026	84 335 011
Levies from Petroleum Pipeline Industry	3	68 321 736	69 548 472	1,8%	68 356 705	70 638 400	3,3%	62 835 877	64 304 266
Interest received	4	11 279 888	16 069 802	42,5%	9 023 910	5 865 542	(35,0%)	4 692 433	3 753 947
Rental Income		65 044	49 543	(23,8%)	66 616	72 009	8,1%	75 609	79 390
Registration fees	5	-	3 400	0,0%	-	20 000	0,0%	20 000	20 000
Other Income		-	4 204 998	0,0%	-	-	0,0%	-	-
TOTAL OPERATING EXPENDITURE		341 667 903	298 888 479	12,5%	363 363 120	373 685 238	2,8%	393 873 064	398 665 223
National/International/Initiatives	6,1	620 752	508 975	18,0%	310 376	340 000	9,5%	357 000	374 136
Publications and Communications		3 215 000	2 706 889	15,8%	3 141 000	2 895 000	(7,8%)	3 039 750	3 185 658
Sponsorships		-	40 230	0,0%	334 000	250 000	(25,1%)	262 500	275 100
Advertising	6,2	8 011 062	8 795 400	(9,8%)	7 070 174	5 875 000	(16,9%)	6 168 750	6 464 850
Stakeholder Meetings	6,3	565 000	607 623	(7,5%)	450 000	490 000	8,9%	514 500	539 196
Tribunals and Hearings	6,4	5 140 000	5 030 006	2,1%	2 170 000	2 070 000	(4,6%)	2 173 500	2 277 828
Advertising, Promotion and Communication	5	17 551 814	17 689 123	(0,8%)	13 475 550	11 920 000	(11,5%)	12 516 000	13 116 768
Gross Salaries	7,1	190 597 336	172 137 829	9,7%	198 464 130	206 892 241	4,2%	220 898 845	233 490 080
Learnership Allowance	7,2	958 320	276 942	71,1%	1 149 984	1 264 983	10,0%	1 391 481	1 530 629
Internship Allowance	7,2	1 132 561	747 760	34,0%	1 359 073	1 494 981	10,0%	1 644 479	1 808 927
Leave Pay: Staff	7,3	1 581 495	1 644 798	(4,0%)	1 695 810	1 817 909	7,2%	1 940 981	2 051 617
Leave pay: Regulator Members		28 098	272 181	(868,7%)	429 703	459 725	7,0%	482 711	505 881
Performance Bonus: FTRM	7,4	1 076 834	1 612 642	(49,8%)	1 251 699	1 315 536	5,1%	1 381 312	1 447 615
Performance Bonus: Staff		35 260 510	26 478 308	24,9%	36 715 864	38 460 958	4,8%	41 064 765	43 405 456
Remuneration: FTRM		7 691 673	6 783 400	11,8%	8 940 707	9 396 683	5,1%	9 866 518	10 340 110
Publication Incentives	7,5	300 000	45 000	85,0%	150 000	150 000	0,0%	150 000	150 000
Remuneration - PTRM and External Members		2 889 663	2 197 137	24,0%	3 048 595	3 170 539	4,0%	3 297 361	3 429 255
Salaries Temporary Staff	7,6	1 000 000	1 404 689	(40,5%)	1 200 000	1 300 000	8,3%	1 430 000	1 573 000

Employment cost	7	242 516 490	213 600 686	11,9%	254 405 567	265 723 554	4,4%	283 548 453	299 732 571
Maintenance	8,1	6 000 000	6 777 050	(13,0%)	1 076 707	1 150 000	6,8%	1 207 500	1 265 460
Motor Vehicle Expenses	8,2	225 000	235 124	(4,5%)	250 000	240 000	(4,0%)	252 000	264 096
Office Rental		900 000	886 680	1,5%	1 050 000	-	(100,0%)	-	-
Building Operating Expenses		-	-	0,0%	5 073 293	5 428 424	7,0%	5 699 845	5 973 437
Municipal Charges		3 226 000	2 917 248	9,6%	3 694 000	3 000 000	(18,8%)	3 150 000	3 301 200
Insurance		647 075	539 237	16,7%	680 000	730 000	7,4%	766 500	803 292
Facilities Maintenance	8	10 998 075	11 355 339	(3,2%)	11 824 000	10 548 424	(10,8%)	11 075 845	11 607 485
Office Operational Expenses		1 516 386	1 519 972	(0,2%)	1 320 477	292 000	(77,9%)	306 600	321 317
Office operational expenses-Lease Payments		1 400 000	1 176 023	16,0%	1 440 000	1 440 000	0,0%	1 512 000	1 584 576
Postage & Courier Services		272 156	54 763	79,9%	276 052	101 900	(63,1%)	106 995	112 131
Personal Protective Equipment		-	-	0,0%	-	175 000	0,0%	183 750	192 570
Information Technology Operations	9,1	1 638 985	1 160 134	29,2%	1 800 000	2 040 000	13,3%	2 142 000	2 244 816
Software License Fees		4 700 000	4 313 095	8,2%	3 400 000	4 300 000	26,5%	4 515 000	4 731 720
Stationery and Printing		1 555 133	1 287 940	17,2%	1 576 000	1 431 500	(9,2%)	1 503 075	1 575 223
Organizational Membership Subscriptions		1 416 447	1 851 893	(30,7%)	1 487 977	1 544 169	3,8%	1 621 377	1 699 204
Professional Membership Subscriptions		128 742	93 277	27,5%	129 551	124 310	(4,0%)	130 526	136 791
Telephone and fax	9,2	913 930	899 216	1,6%	750 000	810 000	8,0%	850 500	891 324



ANNUAL BUDGET FOR THE YEAR 2020/21

CONSOLIDATED -DETAIL (cont.)

INCOME AND EXPENDITURE BUDGET 2020/21 AND FORECAST FOR THE PERIOD 2021/22 AND 2022/23

		A	B		C	E	1	F	H
		BUDGET	ACTUAL	% Variance	APPROVED	CONSOLIDATED	% Variance	FORECAST	FORECAST
DESCRIPTION	NOTES	2018/19	2018/19	(A /B)	2019/20	2020/21	(C E)	2021/22	2022/23
Facilities Maintenance	8	10 998 075	11 355 339	(3,2%)	11 824 000	10 548 424	(10,8%)	11 075 845	11 607 485
Office Operational Expenses		1 516 386	1 519 972	(0,2%)	1 320 477	292 000	(77,9%)	306 600	321 317
Office operational expenses-Lease Payments		1 400 000	1 176 023	16,0%	1 440 000	1 440 000	0,0%	1 512 000	1 584 576
Postage & Courier Services		272 156	54 763	79,9%	276 052	101 900	(63,1%)	106 995	112 131
Personal Protective Equipment		-	-	0,0%	-	175 000	0,0%	183 750	192 570
Information Technology Operations	9,1	1 638 985	1 160 134	29,2%	1 800 000	2 040 000	13,3%	2 142 000	2 244 816
Software License Fees		4 700 000	4 313 095	8,2%	3 400 000	4 300 000	26,5%	4 515 000	4 731 720
Stationery and Printing		1 555 133	1 287 940	17,2%	1 576 000	1 431 500	(9,2%)	1 503 075	1 575 223
Organizational Membership Subscriptions		1 416 447	1 851 893	(30,7%)	1 487 977	1 544 169	3,8%	1 621 377	1 699 204
Professional Membership Subscriptions		128 742	93 277	27,5%	129 551	124 310	(4,0%)	130 526	136 791
Telephone and fax	9,2	913 930	899 216	1,6%	750 000	810 000	8,0%	850 500	891 324
Office Administration	9	13 541 779	12 356 314	8,8%	12 180 057	12 258 879	0,6%	12 871 823	13 489 670
Consultants' Fees	10,1	9 460 000	4 613 673	51,2%	15 261 803	16 262 000	6,6%	15 261 803	15 261 803
External Auditors		2 434 410	1 329 399	45,4%	2 568 304	2 748 085	7,0%	2 568 304	2 568 304
Recruitment costs	10,2	2 000 000	1 095 643	45,2%	785 326	800 000	1,9%	785 326	785 326
Legal fees	10,3	9 000 000	7 491 210	16,8%	15 000 000	15 000 000	0,0%	15 000 000	22 000
Co-sourced internal audit function		2 000 000	1 813 014	9,3%	2 000 000	2 000 000	0,0%	2 000 000	2 000 000

Professional fees	10	24 894 410	16 342 939	34,4%	35 615 433	36 810 085	3,4%	35 615 433	20 637 433
Learnership programme		1 000 000	245 392	75,5%	1 000 000	1 100 000	10,0%	1 155 000	1 210 440
Study fees	11,1	1 420 330	1 506 156	(6,0%)	1 797 501	1 715 482	(4,6%)	1 801 256	1 887 716
External Bursaries		525 000	-	100,0%	525 000	525 000	0,0%	551 250	577 710
Train. & Dev. Full Time Regulator Members		474 209	479 874	(1,2%)	517 925	544 338	5,1%	571 555	598 989
Train. & Dev. Part Time Regulator Members		131 510	31 006	76,4%	150 018	157 519	5,0%	165 395	173 334
Train. & Dev. Staff		6 640 262	2 467 295	62,8%	6 946 246	7 241 228	4,2%	7 603 290	7 968 248
Travel Costs Regulator Members		4 714 661	2 883 162	38,8%	4 943 029	3 708 566	(25,0%)	3 893 994	4 080 906
Travel Costs Staff	11,2	11 676 281	15 147 717	(29,7%)	13 411 823	15 684 663	16,9%	16 468 896	17 259 403
Travel, Accommodation and Training	11	26 582 253	22 760 602	14,4%	29 291 542	30 676 796	4,7%	32 210 636	33 756 746
Bank charges and Forex		143 195	75 609	47,2%	120 000	100 000	(16,7%)	105 000	110 040
Catering	12,1	1 259 185	1 377 344	(9,4%)	1 871 471	2 042 500	9,1%	2 144 625	2 247 567
Employees Wellness	12,2	651 202	535 410	17,8%	550 000	600 000	9,1%	630 000	660 240
Health and Safety		529 500	496 096	6,3%	529 500	500 000	(5,6%)	525 000	550 200
Knowledge Centre	12,3	3 000 000	2 299 017	23,4%	3 500 000	2 505 000	(28,4%)	2 630 250	2 756 502
Other Expenses	12	5 583 082	4 783 476	14,3%	6 570 971	5 747 500	(12,5%)	6 034 875	6 324 549



ANNUAL BUDGET FOR THE YEAR 2020/21

CONSOLIDATED -DETAIL (cont.)

INCOME AND EXPENDITURE BUDGET 2020/21 AND FORECAST FOR THE PERIOD 2021/22 AND 2022/23

		A	B		C	E	1	F	H
DESCRIPTION	NOTES	BUDGET	ACTUAL	% Variance	APPROVED	CONSOLIDATED	% Variance	FORECAST	FORECAST
		2018/19	2018/19	(A / B)	BUDGET	BUDGET	(C E)	2021/22	2022/23
					2019/20	2020/21			
NET SURPLUS/ (DEFICIT) before Depreciation		1 841 494	47 789 501	2495,1%	(6 859 476)	(11 214 763)	(123,5%)	(25 274 866)	(23 774 866)
Depreciation Building			3 525 781	0,0%	-	-	0,0%	-	-
Depreciation Hardware			1 857 082	0,0%	-	-	0,0%	-	-
Depreciation Motor Vehicles			147 124	0,0%	-	-	0,0%	-	-
Depreciation Office Equipment			708 349	0,0%	-	-	0,0%	-	-
Depreciation Software			1 368 056	0,0%	-	-	0,0%	-	-
Depreciation	14	-	7 606 393	0,0%	-	-	0,0%	-	-
NET SURPLUS/ (DEFICIT) for the period		1 841 494	40 183 108	2082,1%	(6 859 476)	(11 214 763)	(63,5%)	(25 274 866)	(23 774 866)
TOTAL CAPITAL EXPENDITURE	13	40 200 000	28 656 749	28,7%	30 250 000	13 500 000	(55,4%)	14 000 000	15 500 000
Motor vehicles	13,1	800 000	-	100,0%	500 000	-	(100,0%)		
Computer software	13,2	2 650 000	59 030	97,8%	8 000 000	6 000 000	(25,0%)	8 000 000	8 000 000
Office furniture and equipment	13,3	3 500 000	1 388 386	60,3%	2 500 000	1 500 000	(40,0%)	1 000 000	1 000 000
Building improvements		30 000 000	23 586 560	21,4%	16 000 000	3 500 000	(78,1%)	2 000 000	3 500 000
Computer hardware	13,4	3 250 000	3 622 774	(11,5%)	3 250 000	2 500 000	(23,1%)	3 000 000	3 000 000
Funding Requirement (Opex excl Dep + Capex)		381 867 903	327 545 228	(14,2%)	393 613 120	387 185 238	(1,6%)	407 873 064	414 165 223
Cash Flow Mitigating Reserve		56 024 302	50 128 834	10,5%	58 869 332	61 155 065		65 031 187	67 925 124

NOTES TO THE BUDGET

BUDGET 2020/21

REVENUE

Total revenue amounts to R362 million and is 1.7% higher than R357 million budget for 2019/20. Total revenue requirement was determined after taking into account an increase of R10 million in operating expenditure, which is partly off-set by a decreases in capital expenditure and refunds to industry of R17 million and R25 million respectively. The licence fee and levy rate is are follows:

Table 2 – Levies Changes Over 3 Years Period

Industry and Unit Measure	2018/19 levy rates	2019/20 levy rates	Levy rates increase (decreases) 2019/20	2020/21 levy rates	Levy rates increase (decreases) 2019/20	Levy rates increase (decreases) over three years
Electricity c/kWh	0.0852	0.0892	4.70%	0.0892	0.00%	4.70%
Piped-Gas c/Gj	36.8153	40.7542	10.70%	42.9948	5.50%	16.79%
Petroleum Pipelines c/litre	0.3869	0.3973	2.70%	0.3973	0.00%	2.70%

NERSA is budgeting for a deficit of R11.21 million in 2020/21 financial year in order to give refunds to the industry through lower increases in licence fees and levy rates compared to the previous years. The amount of R176 million available for refunds to the industries can be summarised as follows:

Table 3 - Available Refunds to Industry

Accumulated surplus as at 31 March 2019	293,703,976
Less: Approved commitments	(58,963,244)
Less: Cash flow mitigating reserve	(58,869,332)
Available refunds for industries 31 March 2019	175,871,400



1. LICENCE FEES FROM ELECTRICITY INDUSTRY

The licence fees from the electricity Industry increased by 1.3% from R205 million in 2019/20 to R208 million in 2020/21. Operating expenditure directly attributable to the industry increased by R5.3 million (5.7%), while Support Service allocation increased by R3.4 million (2.9%). Electricity generated volumes increased by 1.34% from 229.9 GWh to 233.0 GWh for the 2020/21 budget. The increase in volumes has contributed 1.34% towards the decrease in the licence fee rate.

2. LEVIES FROM PIPED-GAS INDUSTRY

The piped-gas levies increased by 5.5% from R73.9 million in 2019/20 to R78.0 million in 2020/21. Operating expenditure directly attributable to the industry decreased by R0.38 million (1.0%) while Support Service allocation increased by R1.2 million (2.9%). Piped-Gas volumes decreased by 0.0% from 181 336 478 GJ to 181 335 699 GJ for the 2019/20 budget and has no impact on the levy rate.

3. LEVIES FROM THE PETROLEUM PIPELINES INDUSTRY

The petroleum pipelines levies increased by 3.3% from R68.4 million in 2019/20 to R70.6 million in 2020/21. Operating expenditure directly attributable to the industry decreased by R0.41 million (1.3%) while Support Service allocation increased by R1.2 million (2.9%). Petroleum Pipelines volumes increased by 3.32%. The increase in volumes has contributed 3.34% towards decrease in the levy rate.

4. INTEREST RECEIVED

Interest received is budgeted at an average cash level of R80 million at 7.21% (based on the actual interest received for 2018/19).

5. REGISTRATION FEES

Registration fee is for small scale embedded generators of electricity and payable upon the applicants meeting minimum requirements. The registration fees amounts R 200 per application and NERSA plans to process 100 applications per year.

OPERATING EXPENDITURE

The total operating expenditure budget for 2020/21 is R374 million, which is 2.8% increase compared to the 2019/20 budget. Variances of 10% or more are explained in the notes.

6. ADVERTISING, PROMOTION AND COMMUNICATION

There is an overall decrease of 11.5% in the budget and this is attributable to expected reduction on advertising expenditure.

6.1. ADVERTISING

NERSA procures newspaper advertising for legal notices for public hearings, licence applications and amendments, tariff applications, invitations to stakeholders to make comments or representations and recruitment for vacant positions. The budget is decreasing by 16.9% due to reduction in the number of legal notices. The budget and actuals for 2018/19 includes two countrywide public hearing advertising for Eskom applications. One application is budgeted for in 2020/21. Where possible more than one notices are combined in a single advert.

7. EMPLOYMENT COST

There is an overall increase of 4.4% in the budget and this is attributable to Gross Salaries and Remuneration for Full-Time Regulator Members:

7.1. GROSS SALARIES

Gross salaries increased at an average of 4.1% due to the following:

- NERSA staff members are budgeted to receive 7.1% cost of living adjustment (inflation 5.1% + 1% betterment and 1% pay progression).
- NERSA members of management are budgeted to receive 6.1% cost of living adjustment (inflation 5.1% and 1% pay progression).

The above increases are as per the guidelines for costing and budgeting for compensation of employees by National Treasury issued in June 2019.

In 2019/20 NERSA had budgeted for a 7.3% (5.3% (CPI) +2 % (betterment)) for staff in the bargaining unit, however the final agreement signed with the Union was 7%. The increases are reduced by the less than budgeted increase implemented in 2019/20 and changes in vacancies.

Full staff complement remains at 248 (28 management and 220 staff members). Employee cost for 2020/21 is budgeted for at a 5% vacancy rate, which is the same as 2019/20 budget.

7.2. INTERNSHIP AND LEARNERSHIP ALLOWANCE

Internship and learnership allowances have increased by 10% to ensure the retention of learners and interns for the full duration of the contract period.

The proposed allowances for 2019/20 are as follows:

- Learnership - 12 learners at a remuneration of R105 415 per person per annum.
- Internship - 12 learners at a remuneration of R124 582 per person per annum.

8. FACILITIES MAINTENANCE

There is an overall decrease of **10.8%** in the budget and this is attributable to an anticipated decrease in municipal charges.

8.1. BUILDING OPERATING EXPENSES

This is a new line item created at the beginning of 2019/20 financial year. The line item is to cater for Facility Management non-technical services that include cleaning services, security and management fees. The parking space and vouchers for visitors is also included in this line item.

8.2. MUNICIPAL CHARGES

The decrease in the budget by **18.8%** is mainly due to less electricity consumption anticipated. The new Heating Ventilation and Air Conditioning (HVAC) system, movement sensors in the lavatories and energy efficient light bulbs have resulted in less consumption of electricity.

9. OFFICE ADMINISTRATION

There is an overall increase of **0.6%** in the budget and this is attributable to software licences and information technology operations.

9.1. OFFICE OPERATIONS

The decrease in budget by **77.9%** is mainly due to the reallocation of the rental of the parking space and vouchers to building operating expenses. This line item is to be used only for groceries (including tea, coffee and sweets).

9.2. POSTAGE AND COURIER SERVICE

The decrease in budget by **63.1%** is as a result of the less usage of the courier services due to the use of emails and the delivery of documents by the NERSA drivers within Gauteng. The proposed budget is mainly for postal services customer education materials and NERSA corporate branding material necessary during public hearings and exhibitions.

9.3. PERSONAL PROTECTIVE EQUIPMENT

This is a new line item created for the acquisition of Personal Protective Equipment's and clothing that are necessary for the audit and compliance teams in the regulatory divisions. The budget is based on the number of employees on the audit teams.



9.4. INFORMATION TECHNOLOGY OPERATIONS

This line item is for routine ICT services, which includes disaster recovery and business continuity, website management, preventive maintenance and records management. The budget has increased by **13.3%** due to the planned relocation of the server room on the six floor to the basement.

9.5. SOFTWARE LICENCE FEES

The increase in budget by **26.5%** is mainly due to the reclassification of Microsoft licences and assurance as operating expenditure and not capital expenditure.

Previously and for the 2019/20 financial year, Microsoft licences and assurance were allocated as capital expenditure due to the long-term nature of the transaction. The budget for 2018/19 financial year was adjusted to address the over-expenditure and the budget for 2019/20 is still to be adjusted. From the 2018/19 financial year, NERSA entered into a twelve-month period transaction and it is expected to continue with the short-term transaction.

10. PROFESSIONAL FEES

There is an overall increase of **3.4%** in the budget and this is attributable to an increase in the number of planned projects.

10.1. CONSULTING FEES

The budget for the consulting fees is based on the number of planned projects and contingencies as indicated in the table below.

Table 4 – Planned Project

COST CENTRE	NAME OF PROJECT	PURPOSE OF THE PROJECT	ESTIMATED AMOUNT
ELR	Investigations	This is a provision made for emergency investigations that may need to be conducted during the review of applications for tariff increases by licensees.	R 1 000 000
EPT	Cost based methodology	Development of a methodology for municipalities.	R 1 200 000
EIP	Eskom Generation Fleet	An audit of the Electricity Generation Fleet.	R 1 000 000
EIP	Integrated demand management audit	An annual audit on Energy Efficiency Demand Side Management.	R 500 000
TOTAL ELECTRICITY			R 3 700 000
GPT	Maximum Pricing Methodology	This is a provision for the review of the tariff methodology that is planned to commence in 2020/21.	R 1 000 000
TOTAL PIPED-GAS			R 1 000 000
PLC	Petroleum market study	This is a provision of data of the market players as well as the supply and demand data of the South African petroleum market. Study to collate/procure the supply and demand data.	R 300 000
PPT	Benchmarking exercise	This is a provision of benchmarking exercise on the implementation of the guidelines	R 1 000 000
TOTAL PETROLEUM PIPELINES			R 1 300 000
CSM	Media Monitoring	Monitoring and analysis of and report on, media articles that affect NERSA	R 500 000
CSM	Translation service	As part of the implementation of NERSA's Language Policy. NERSA public materials will be translated into four other languages.	R 1 000 000
ICT	Change Management Application	NERSA will be undertaking significant projects, which will change the application landscape and business processes of the organisation. In doing so, all end-users and staff will be affected. For such an organisational change, change management is essential to ensure that the organisation receives the changes in a positive light and the projects are successful.	R 1 000 000
ICT	Skype for business	Implementation and maintenance of skype for business.	R 600 000
TOTAL CORPORATE SERVICE			R 3 100 000



COST CENTRE	NAME OF PROJECT	PURPOSE OF THE PROJECT	ESTIMATED AMOUNT
FMG	Enhancement FOR ACCPAC AND VIP PAYROL	Support and maintenance the Financial Management, Asset Management and Payroll systems.	R 232 000
SCM	SCM System	Support and maintenance of SCM System.	R 250 000
SCM	Accommodation strategy	Development of the office accommodation strategy.	R 500 000
SCM	Enterprise supplier development project	Supplier incubation programme.	R 300 000
TOTAL FINANCE AND ADMINISTRATION			R 1 282 000
HRV	Change Management	A service provider is required to assist with the competency model and change management.	R 750 000
HRV	Skills audit	The HRRC has requested that a skills audit be conducted to measure current skills, skills required in the future as well as the gaps identified in order to design interventions to bridge the gaps.	R 750 000
TOTAL HUMAN RESOURCES			R 1 500 000
COO	BBBEE	B-BBEE Certification (Annually) and women empowerment programme.	R 350 000
IAU	Fraud Hotline	Monthly fees payable to the Service Provider for Management of the NERSA Fraud Hotline.	R 80 000
SPM	Strategic planning facilitation	Facilitators for the Annual NERSA planning cycle 2020/21 with the aim to develop the new Annual Performance Plan for 2020/21 - 2022/23 - and in needed the review of the Strategic Plan for 2020/21 - 2024/25	R 400 000
RAR	Ex-ante macroeconomic impact assessment models for Tariff/ Price applications	Ex-ante macroeconomic impact assessment models for Electricity, Petroleum and Piped Gas revenue applications for a period of two (2) years	R 500 000
RAR	Regulatory Impact Assessment (RIA) study	Ex-post Regulatory Impact Assessment of all Energy Regulator decisions and stakeholder perception/ satisfaction survey for a period of twelve (12) months.	R 2 300 000
RSU	Energy Regulator (Board) assessment	Annual assessments of the Energy Regulator (Board) and its committees conducted by the appointed service provider as required in terms of Corporate Governance.	R 750 000
TOTAL SPECIAL SUPPORT UNITS			R 4 080 000
TOTAL NERSA			R 15 962 000

11. TRAVEL, ACCOMMODATION AND TRAINING

There is an overall increase of **4.7%** in the budget, which is mainly due to an increase in travel cost for staff members.

11.1. LEARNERSHIP PROGRAMME

This line item is for the service provider for the facilitation of the learnership programme. The increase in budget by **10%** is based on the awarded bid price.

11.2. TRAVEL COST REGULATOR MEMBERS

The decrease in budget by **25.0%** is to bring the budget in line with the actual expenditure for 2018/19, which had 38.8% under-expenditure. There also have been fewer international trips undertaken by Part-Time Regulator Members and the travel plan for regulator members for the 2020/21 is not finalised.

11.3. TRAVEL COST STAFF

The increase in budget by **16.9%** is to bring the budget in line with the actual expenditure for 2018/19 which had 29.7% over-expenditure. The increases are mainly in the Licensing and Compliance departments at the regulatory divisions. There has been an increase in the number of compliance and monitoring audits. The increase is expected to continue in the 2020/21 financial year and it also includes audits to verify the implementation of correction action plans. The Electricity Regulation audit teams increased in number of personnel and this was not incorporated into the budget.

12. OTHER EXPENSES

There is an overall decrease of **4.7%** in the budget for other expenses mainly due to Knowledge Centre expenses and Bank Charges and Forex.

12.1. BANK CHARGES AND FOREX

This line item caters for bank charges and the procurement of foreign currency for international travel and subsistence. The decline in the budget by **16.7%** is due to the expected decrease in the number of international travel by staff and regulator members.

12.2. KNOWLEDGE CENTRE

The decrease in budget by **28.4%** is mainly due to the discontinuation of certain electronic subscriptions and journals. News books are also procured based on request from staff and these requests have been declining.

13. CAPITAL EXPENDITURE

The total capital expenditure budget for 2020/21 amounts to **R14 million**. This represents a 55.4% decrease compared to the budget of 2019/20 due to the completion of the refurbishment of the building, which was a once off event.

13.1. COMPUTER SOFTWARE

The budget for 2020/21 included the following software:

- Development of business processes (recommendation of the ICT Systems and Operations Review Project) that will focus on how NERSA does its work to improve customer service, cut operational costs, and become a world-class regulator. Business processes will be used to inform the processes that will be integrated in the NERSA Enterprise System (NES). **(R 2.9 million)**.
- Multi-phase pipeline fluid flow modelling software, which is a recommendation of the ICT Systems and Operations Review Project. **(R 2.0 million)**.
- Procurement and implementation of the Microsoft System Centre Management for the automation of the distribution of software configuration rules, updates and maintenance to all network equipment across the business including ICT being able to centrally monitor and manage all network equipment **(R 1.1 million)**.



13.2. OFFICE FURNITURE AND EQUIPMENT

The budget includes the following:

- Implementation of the expected recommendations of the refurbishment contractors closed out report. These recommendations may require additional furniture and equipment for the building to comply with Occupational Health and Safety standards **(R 1 million)**.
- Security equipment that includes equipment for technical surveillance counter measures, eavesdropping protector, mobile x-ray scanner and walkthrough detector **(R 0.5 million)**.

13.3. BUILDING IMPROVEMENTS

The decrease in budget by 78,1% is due to completion of the refurbishment projects. The proposed budget for 2020/21 financial year is to cater for the recommendations of the refurbishment contractor's close out report. The report is outstanding and the recommendations may include changes to be done in certain areas as the 4th floor in order to accommodate additional staff members who were added subsequent to the approval of the initial project scope. This budget will also cater for the replacement of the electrical components, which could include not be catered for as part of the refurbishment project due to capping requirements **(R 3.5 million)**.

13.4. COMPUTER HARDWARE

The budget is for the planned replacement of laptops and servers. The amount includes upgrade of audio-visual equipment (teleconferencing system, recording devices and microphones, including video conferencing) across all boardrooms as part of the refurbishment based on the business case conducted **(R 2.5 million)**.

14. DEPRECIATION

Depreciation for the year is not budgeted for as it is excluded in the funding requirements. Funding requirements include capital expenditure at full cost, and therefore exclude depreciation

ELECTRICITY

BUDGET 2020/21 INCOME AND EXPENDITURE

ANNUAL BUDGET FOR THE YEAR 2020/2021							
ELECTRICITY REGULATION INCOME AND EXPENDITURE BUDGET FOR 2020/21							
	A	B		C	1	D	2
	ELECTRICITY REGULATION BUDGET	ELECTRICITY REGULATION ACTUAL	% Variance (A /B)	ELECTRICITY REGULATION APPROVED BUDGET	% Variance (A /C)	ELECTRICITY REGULATION PROPOSED BUDGET	% Variance (E / C)
DESCRIPTION	2018/19	2018/19		2019/20		2020/21	
TOTAL INCOME	201 067 147	204 246 382	1,6%	210 426 679	4,7%	211 373 399	0,4%
License fees for Electricity Industry	194 487 085	191 610 857	(1,5%)	205 154 173	5,5%	207 909 620	1,3%
Interest received	6 542 336	9 320 485	42,5%	5 233 868	(20,0%)	3 402 014	(35,0%)
Rental Income	37 726	28 735	(23,8%)	38 638	2,4%	41 765	8,1%
Registration fee	-	3 400		-	0,0%	20 000	0,0%
Other Income	-	3 282 904		-	0,0%	-	-
TOTAL OPERATING EXPENDITURE	86 502 813	85 470 498	1,2%	91 947 374	6,3%	97 238 458	5,8%
National/International/Initiatives	-	-	0,0%	-	0,0%	-	0,0%
Publications and Communications	-	-	0,0%	250 000	0,0%	75 000	(70,0%)
Sponsorships	-	-	0,0%	-	0,0%	-	0,0%
Advertising	2 986 670	4 557 005	(52,6%)	1 900 000	(36,4%)	2 200 000	15,8%
Stakeholder Meetings	415 000	411 456	0,9%	450 000	8,4%	490 000	8,9%
Tribunals and Hearings	4 900 000	4 967 214	(1,4%)	2 000 000	(59,2%)	1 900 000	(5,0%)



Advertising, Promotion and Communication

	8 301 670	9 935 675	(19,7%)	4 600 000	(44,6%)	4 665 000	1,4%
Gross Salaries	58 450 011	55 416 063	5,2%	62 551 566	7,0%	65 310 654	4,4%
Learnership Allowance	-	-	0,0%	-	0,0%	-	0,0%
Internship Allowance	-	-	0,0%	-	0,0%	-	0,0%
Leave Pay: Staff	431 780	678 837	(57,2%)	462 868	7,2%	496 194	7,2%
Leave pay: Regulator Members	-	-	0,0%	-	0,0%	-	0,0%
Performance Bonus: FTRM	-	-	0,0%	-	0,0%	-	0,0%
Performance Bonus: Staff	10 813 252	8 900 551	17,7%	11 572 040	7,0%	12 082 471	4,4%
Remuneration: FTRM	-	-	0,0%	-	0,0%	-	0,0%
Publication Incentives	-	-	0,0%	-	0,0%	-	0,0%
Remuneration - PTRM and External Members	-	-	0,0%	-	0,0%	-	0,0%
Salaries Temporary Staff	-	69 845	0,0%	-	0,0%	-	0,0%
Employment cost	69 695 043	65 065 296	6,6%	74 586 474	7,0%	77 889 320	4,4%
Maintenance	-	-	0,0%	-	0,0%	-	0,0%
Office Rental	-	-	0,0%	-	0,0%	-	0,0%
Motor Vehicle Expenses	-	-	0,0%	-	0,0%	-	0,0%
Facility Management Operating expenses	-	-	0,0%	-	0,0%	-	0,0%
Municipal Charges	-	-	0,0%	-	0,0%	-	0,0%
Insurance	-	-	0,0%	-	0,0%	-	0,0%

ELECTRICITY REGULATION (cont.)							
INCOME AND EXPENDITURE BUDGET FOR 2020/21							
	A	B		C	1	D	2
	ELECTRICITY REGULATION BUDGET	ELECTRICITY REGULATION ACTUAL	% Variance (A /B)	ELECTRICITY REGULATION APPROVED BUDGET	% Variance (A /C)	ELECTRICITY REGULATION PROPOSED BUDGET	% Variance (E / C)
DESCRIPTION	2018/19	2018/19		2019/20		2020/21	
Facilities Maintenance	-	-	0,0%	-	0,0%	-	0,0%
Office Operational Expenses	150 000	99 863	33,4%	-	(100,0%)	-	0,0%
PPE Tools	-	-	0,0%	-	0,0%	75 000	0,0%
Office operational expenses-Lease Payments	-	-	0,0%	-	0,0%	-	0,0%
Postage & Courier Services	9 660	11 096	(14,9%)	35 500	267,5%	12 000	(66,2%)
Information Technology Operations	-	-	0,0%	-	0,0%	-	0,0%
Software License Fees	1 200 000	805 427	32,9%	1 200 000	0,0%	600 000	(50,0%)
Stationery and Printing	38 103	31 771	16,6%	60 000	57,5%	62 500	4,2%
Organizational Membership Subscriptions	-	-	0,0%	-	0,0%	-	0,0%
Professional Membership Subscriptions	44 715	13 851	69,0%	20 000	(55,3%)	24 500	22,5%
Telephone and fax	-	-	0,0%	-	0,0%	-	0,0%
Office Administration	1 442 478	962 009	33,3%	1 315 500	(8,8%)	774 000	(41,2%)
Consultants' Fees	300 000	351 738	(17,2%)	2 200 000	633,3%	3 700 000	68,2%
External Auditors	-	-	0,0%	-	0,0%	-	0,0%
Recruitment	-	-	0,0%	-	0,0%	-	0,0%
Legal fees	-	-	0,0%	-	0,0%	-	0,0%
Internal Audit	-	-	0,0%	-	0,0%	-	0,0%
Professional fees	300 000	351 738	(17,2%)	2 200 000	633,3%	3 700 000	68,2%
Learnership programme	-	-	0,0%	-	0,0%	-	0,0%
Study fees	215 001	120 428	44,0%	225 001	4,7%	300 000	33,3%
External Bursaries	-	-	0,0%	-	0,0%	-	0,0%
Train. & Dev. Full Time Regulator Members	-	-	0,0%	-	0,0%	-	0,0%
Train. & Dev. Part Time Regulator Members	-	-	0,0%	-	0,0%	-	0,0%
Train.& Dev. Staff	2 045 750	99 568,12	95,1%	2 189 305,00	7,0%	2 285 872,90	4,4%
Travel Costs Regulator Members	-	-	0,0%	-	0,0%	-	0,0%
Travel Costs Staff	4 253 903	8 718 299	(104,9%)	6 433 094	51,2%	7 214 265	12,1%



Travel, Accommodation and Training	6 514 654	8 938 295	(37,2%)	8 847 400	35,8%	9 800 138	10,8%
Bank Charges	-	-	0,0%	-	0,0%	-	0,0%
Catering & Entertain	248 968	217 484	12,6%	398 000	59,9%	410 000	3,0%
Employees Wellness	-	-	0,0%	-	0,0%	-	0,0%
Health and Safety	-	-	0,0%	-	0,0%	-	0,0%
Loss on Disposal of assets	-	-	0,0%	-	0,0%	-	0,0%
Knowledge Centre	-	-	0,0%	-	0,0%	-	0,0%
Other Expenses	248 968	217 484	12,6%	398 000	59,9%	410 000	3,0%
NET SURPLUS/ (DEFICIT) before Depreciation	114 564 334	118 775 884	(3,7%)	118 479 305	3,4%	114 134 941	(3,7%)
Support Service	108 139 690	89 997 825	16,8%	116 039 983	7,3%	119 413 908	2,9%
Depreciation	-	4 411 708	0,0%	-	0,0%	-	-
NET SURPLUS/ (DEFICIT) for the period	6 424 644	24 366 351	(279,3%)	2 439 323	(62,0%)	(5 278 967)	(316,4%)
TOTAL CAPITAL EXPENDITURE	23 316 000	16 620 915	28,7%	17 545 000	(24,8%)	7 830 000	(55,4%)
Motor vehicles	464 000	-	100,0%	290 000	(37,5%)	-	(100,0%)
Computer software	1 537 000	34 237	97,8%	4 640 000	201,9%	3 480 000	(25,0%)
Office furniture and equipment	2 030 000	805 264	60,3%	1 450 000	(28,6%)	870 000	(40,0%)
Building improvements	17 400 000	13 680 205	21,4%	9 280 000	(46,7%)	2 030 000	(78,1%)
Computer hardware	1 885 000	2 101 209	(11,5%)	1 885 000	0,0%	1 450 000	(23,1%)

PIPED-GAS

BUDGET 2020/21 INCOME AND EXPENDITURE

ANNUAL BUDGET FOR THE YEAR 2020/2021							
PIPE GAS REGULATION INCOME AND EXPENDITURE BUDGET FOR 2020/21							
	A	B		C	1	D	2
	PIPED GAS REGULATION BUDGET	PIPED GAS REGULATION ACTUAL	% Variance (A /B)	PIPED GAS REGULATION APPROVED BUDGET	% Variance (A /C)	PIPED GAS REGULATION PROPOSED BUDGET	% Variance (E / C)
DESCRIPTION	2018/19	2018/19		2019/20		2020/21	
TOTAL INCOME	71 738 079	69 037 018	(3,8%)	75 811 250	5,7%	79 211 790	4,5%
Levies from Piped-Gas Industry	69 355 644	65 190 908	(6,0%)	73 902 240	6,6%	77 964 905	5,5%
Interest received	2 368 776	3 374 659	42,5%	1 895 021	(20,0%)	1 231 764	(35,0%)
Rental Income	13 659	10 404	(23,8%)	13 989	2,4%	15 122	8,1%
Other Income	-	461 047	0,0%	-	0,0%	-	0,0%
TOTAL OPERATING EXPENDITURE	38 269 881	32 504 711	15,1%	39 540 572	3,3%	39 163 545	(1,0%)
National/International/Initiatives	-	-	0,0%	-	0,0%	-	0,0%
Publications and Communications	-	-	0,0%	-	0,0%	-	0,0%
Sponsorships	-	-	0,0%	-	0,0%	-	0,0%
Advertising	2 874 392	1 538 069	46,5%	2 633 000	(8,4%)	1 750 000	(33,5%)
Stakeholder Meetings	150 000	150	99,9%	-	(100,0%)	-	0,0%
Tribunals and Hearings	120 000	-	100,0%	80 000	(33,3%)	80 000	0,0%
Advertising, Promotion and Communication	3 144 392	1 538 219	51,1%	2 713 000	(13,7%)	1 830 000	(32,5%)
Gross Salaries	24 611 860	22 731 607	7,6%	25 711 815	4,5%	27 449 996	6,8%
Learnership Allowance	-	-	0,0%	-	0,0%	-	0,0%
Internship Allowance	-	-	0,0%	-	0,0%	-	0,0%
Leave Pay: Staff	263 811	280 260	(6,2%)	282 805	7,2%	303 167	7,2%
Leave pay: Regulator Members	-	-	0,0%	-	0,0%	-	0,0%
Performance Bonus: FTRM	-	-	0,0%	-	0,0%	-	0,0%
Performance Bonus: Staff	4 553 194	3 423 594	24,8%	4 756 685	4,5%	5 078 249	6,8%
Remuneration: FTRM	-	-	0,0%	-	0,0%	-	0,0%
Publication Incentives	-	-	0,0%	-	0,0%	-	0,0%
Remuneration - PTRM and External Members	-	-	0,0%	-	0,0%	-	0,0%
Salaries Temporary Staff	-	90 259	0,0%	-	0,0%	-	0,0%



NET SURPLUS/ (DEFICIT) before Depreciation		1 841 494	47 789 501	2495,1%	(6 859 476)	(11 214 763)	(123,5%)	(25 274 866)	(23 774 866)
Depreciation	14	-	7 606 393	0,0%	-	-	0,0%	-	-
NET SURPLUS/ (DEFICIT) for the period		1 841 494	40 183 108	2082,1%	(6 859 476)	(11 214 763)	(63,5%)	(25 274 866)	(23 774 866)
TOTAL CAPITAL EXPENDITURE	13	40 200 000	28 656 749	28,7%	30 250 000	13 500 000	(55,4%)	14 000 000	15 500 000
Motor vehicles	13,1	800 000	-	100,0%	500 000	-	(100,0%)		
Computer software	13,2	2 650 000	59 030	97,8%	8 000 000	6 000 000	(25,0%)	8 000 000	8 000 000
Office furniture and equipment	13,3	3 500 000	1 388 386	60,3%	2 500 000	1 500 000	(40,0%)	1 000 000	1 000 000
Building improvements		30 000 000	23 586 560	21,4%	16 000 000	3 500 000	(78,1%)	2 000 000	3 500 000
Computer hardware	13,4	3 250 000	3 622 774	(11,5%)	3 250 000	2 500 000	(23,1%)	3 000 000	3 000 000
Funding Requirement (Opex excl Dep + Capex)		381 867 903	327 545 228	(14,2%)	393 613 120	387 185 238	(1,6%)	407 873 064	414 165 223
Cash Flow Mitigating Reserve		56 024 302	50 128 834	10,5%	58 869 332	61 155 065		65 031 187	67 925 124

* Other income in 2018/19 related to refunds from insurance and awards of cost for legal fees relating to previous financial year. These are not expected in 2020/21.

PIPE GAS REGULATION (cont.) INCOME AND EXPENDITURE BUDGET FOR 2020/21							
	A	B		C	1	D	2
	PIPED GAS REGULATION BUDGET	PIPED GAS REGULATION ACTUAL	% Variance (A /B)	PIPED GAS REGULATION APPROVED BUDGET	% Variance (A /C)	PIPED GAS REGULATION PROPOSED BUDGET	% Variance (E / C)
DESCRIPTION	2018/19	2018/19		2019/20		2020/21	
Office Administration	39 500	42 082	(6,5%)	60 000	51,9%	108 250	80,4%
Consultants' Fees	3 120 000	599 969	80,8%	3 200 000	2,6%	1 000 000	(68,8%)
External Auditors	-	-	0,0%	-	0,0%	-	0,0%
Recruitment	-	-	0,0%	-	0,0%	-	0,0%
Legal fees	-	-	0,0%	-	0,0%	-	0,0%
Internal Audit	-	-	0,0%	-	0,0%	-	0,0%
Professional fees	3 120 000	599 969	80,8%	3 200 000	2,6%	1 000 000	(68,8%)
Learnership programme	-	-	0,0%	-	0,0%	-	0,0%
Study fees	470 000	850 904	(81,0%)	637 500	35,6%	365 000	(42,7%)
External Bursaries	-	-	0,0%	-	0,0%	-	0,0%
Train. & Dev. Full Time Regulator Members	-	-	0,0%	-	0,0%	-	0,0%
Train. & Dev. Part Time Regulator Members	-	-	0,0%	-	0,0%	-	0,0%
Train. & Dev. Staff	830 771	974 745,95	(17,3%)	899 914,00	8,3%	960 749,86	6,8%
Travel Costs Regulator Members	-	-	0,0%	-	0,0%	-	0,0%
Travel Costs Staff	1 213 853	1 955 401	(61,1%)	1 213 853	0,0%	1 993 133	64,2%
Travel, Accommodation and Training	2 514 624	3 781 051	(50,4%)	2 751 267	9,4%	3 318 883	20,6%
Bank Charges	-	-	0,0%	-	0,0%	-	0,0%
Catering & Entertain	22 500	17 671	21,5%	65 000	188,9%	75 000	15,4%
Employees Wellness	-	-	0,0%	-	0,0%	-	0,0%
Health and Safety	-	-	0,0%	-	0,0%	-	0,0%
Loss on Disposal of assets	-	-	0,0%	-	0,0%	-	0,0%
Knowledge Centre	-	-	0,0%	-	0,0%	-	0,0%
Other Expenses	22 500	17 671	21,5%	65 000	188,9%	75 000	15,4%



NET SURPLUS/ (DEFICIT) before Depreciation	33 468 198	36 532 307	(9,2%)	36 270 678	8,4%	40 048 245	10,4%
Support Service	39 154 028	37 929 357	3,1%	42 014 475	7,3%	43 236 070	2,9%
Depreciation		1 597 342	0,0%	-	0,0%	-	-
NET SURPLUS/ (DEFICIT) for the period	(5 685 830)	(2 994 393)	47,3%	(5 743 797)	0,0%	(3 187 825)	(44,5%)
TOTAL CAPITAL EXPENDITURE	8 442 000	6 017 917	28,7%	6 352 500	(24,8%)	2 835 000	(55,4%)
Motor vehicles	168 000	-	100,0%	105 000	(37,5%)	-	(100,0%)
Computer software	556 500	12 396	97,8%	1 680 000	201,9%	1 260 000	(25,0%)
Office furniture and equipment	735 000	291 561	60,3%	525 000	(28,6%)	315 000	(40,0%)
Building improvements	6 300 000	4 953 178	21,4%	3 360 000	(46,7%)	735 000	(78,1%)
Computer hardware	682 500	760 783	(11,5%)	682 500	0,0%	525 000	(23,1%)

PETROLEUM PIPELINES

BUDGET 2020/21 INCOME AND EXPENDITURE

ANNUAL BUDGET FOR THE YEAR 2020/2021							
PETROLEUM PIPELINES REGULATION INCOME AND EXPENDITURE BUDGET FOR 2020/21							
	A	B		C	1	D	2
	PETROLEUM PIPELINES REGULATION BUDGET	PETROLEUM PIPELINES REGULATION ACTUAL	% Variance (A /B)	PETROLEUM PIPELINES REGULATION APPROVED BUDGET	% Variance (A /C)	PETROLEUM PIPELINES REGULATION PROPOSED BUDGET	% Variance (E / C)
DESCRIPTION	2018/19	2018/19		2019/20		2020/21	
TOTAL INCOME	70 704 171	73 394 581	3,8%	70 265 715	(0,6%)	71 885 285	2,3%
Levies from Petroleum Pipeline Industry	68 321 736	69 548 472	1,8%	68 356 705	0,1%	70 638 400	3,3%
Interest received	2 368 776	3 374 659	42,5%	1 895 021	(20,0%)	1 231 764	(35,0%)
Rental Income	13 659	10 404	(23,8%)	13 989	2,4%	15 122	8,1%
Other Income	-	461 047	0,0%	-	0,0%	-	0,0%
TOTAL OPERATING EXPENDITURE	30 447 463	18 476 767	39,3%	31 806 241	4,5%	31 397 186	(1,3%)
National/International/Initiatives	-	-	0,0%	-	0,0%	-	0,0%
Publications and Communications	-	-	0,0%	-	0,0%	-	0,0%
Sponsorships	-	-	0,0%	-	0,0%	-	0,0%
Advertising	2 000 000	692 644	65,4%	1 750 000	(12,5%)	1 150 000	(34,3%)
Stakeholder Meetings	-	33 317	0,0%	-	0,0%	-	0,0%
Tribunals and Hearings	120 000	-	100,0%	90 000	(25,0%)	90 000	0,0%
Advertising, Promotion and Communication	2 120 000	725 961	65,8%	1 840 000	(13,2%)	1 240 000	(32,6%)
Gross Salaries	21 169 895	13 537 516	36,1%	21 991 234	3,9%	21 184 182	(3,7%)
Learnership Allowance	-	-	0,0%	-	0,0%	-	0,0%
Internship Allowance	-	-	0,0%	-	0,0%	-	0,0%
Leave Pay: Staff	89 864	70 584	21,5%	96 334	7,2%	103 270	7,2%
Leave pay: Regulator Members	-	-	0,0%	-	0,0%	-	0,0%
Performance Bonus: FTRM	-	-	0,0%	-	0,0%	-	0,0%
Performance Bonus: Staff	3 916 430	2 041 366	47,9%	4 068 378	3,9%	4 104 967	0,9%
Remuneration: FTRM	-	-	0,0%	-	0,0%	-	0,0%
Publication Incentives	-	-	0,0%	-	0,0%	-	0,0%
Remuneration - PTRM and External Members	-	-	0,0%	-	0,0%	-	0,0%
Salaries Temporary Staff	-	-	0,0%	-	0,0%	-	0,0%



Employment cost	25 176 189	15 649 466	37,8%	26 155 946	3,9%	25 392 419	(2,9%)
Maintenance	-	-	0,0%	-	0,0%	-	0,0%
Office Rental	-	-	0,0%	-	0,0%	-	0,0%
Motor Vehicle Expenses	-	-	0,0%	-	0,0%	-	0,0%
Facility Management Operating expenses	-	-	0,0%	-	0,0%	-	0,0%
Municipal Charges	-	-	0,0%	-	0,0%	-	0,0%
Insurance	-	-	0,0%	-	0,0%	-	0,0%
Facilities Maintenance	-	-	0,0%	-	0,0%	-	0,0%
Office Operational Expenses	-	77 566	0,0%	-	0,0%	-	0,0%
PPE Tools	-	-	0,0%	-	0,0%	50 000	0,0%
Office operational expenses-Lease Payments	-	-	0,0%	-	0,0%	-	0,0%
Postage & Courier Services	3 500	-	100,0%	3 000	(14,3%)	500	(83,3%)
Information Technology Operations	-	-	0,0%	-	0,0%	-	0,0%
Software License Fees	-	-	0,0%	-	0,0%	-	0,0%
Stationery and Printing	30 226	14 586	51,7%	35 000	15,8%	60 000	71,4%
Organizational Membership Subscriptions	-	-	0,0%	-	0,0%	-	0,0%
Professional Membership Subscriptions	4 000	-	100,0%	2 000	(50,0%)	-	(100,0%)
Telephone and fax	-	-	0,0%	-	0,0%	-	0,0%

PETROLEUM PIPELINES REGULATION (cont.)							
INCOME AND EXPENDITURE BUDGET FOR 2020/21							
	A	B		C	1	D	2
	PETROLEUM PIPELINES REGULATION BUDGET	PETROLEUM PIPELINES REGULATION ACTUAL	% Variance (A /B)	PETROLEUM PIPELINES REGULATION APPROVED BUDGET	% Variance (A /C)	PETROLEUM PIPELINES REGULATION PROPOSED BUDGET	% Variance (E / C)
DESCRIPTION	2018/19	2018/19		2019/20		2020/21	
Office Administration	37 726	92 152	(144,3%)	40 000	6,0%	110 500	176,3%
Consultants' Fees	600 000	-	100,0%	1 300 000	116,7%	1 300 000	0,0%
External Auditors	-	-	0,0%	-	0,0%	-	0,0%
Recruitment	-	-	0,0%	-	0,0%	-	0,0%
Legal fees	-	-	0,0%	-	0,0%	-	0,0%
Internal Audit	-	-	0,0%	-	0,0%	-	0,0%
Professional fees	600 000	-	100,0%	1 300 000	116,7%	1 300 000	0,0%
Learnership programme	-	-	0,0%	-	0,0%	-	0,0%
Study fees	262 000	203 230	22,4%	210 000	(19,8%)	422 982	101,4%
External Bursaries	-	-	0,0%	-	0,0%	-	0,0%
Train. & Dev. Full Time Regulator Members	-	-	0,0%	-	0,0%	-	0,0%
Train. & Dev. Part Time Regulator Members	-	-	0,0%	-	0,0%	-	0,0%
Train.& Dev. Staff	740 946	586 325	20,9%	769 693	3,9%	741 446	(3,7%)
Travel Costs Regulator Members	-	-	0,0%	-	0,0%	-	0,0%
Travel Costs Staff	1 453 102	1 215 192	16,4%	1 453 102	(0,0%)	2 159 838	48,6%
Travel, Accommodation and Training	2 456 048	2 004 747	18,4%	2 432 795	(0,9%)	3 324 266	36,6%
Bank Charges	-	-	0,0%	-	0,0%	-	0,0%
Catering & Entertain	57 500	4 441	92,3%	37 500	(34,8%)	25 000	(33,3%)
Employees Wellness	-	-	0,0%	-	0,0%	-	0,0%
Health and Safety	-	-	0,0%	-	0,0%	-	0,0%
Loss on Disposal of assets	-	-	0,0%	-	0,0%	-	0,0%
Knowledge Centre	-	-	0,0%	-	0,0%	5 000	0,0%
Other Expenses	57 500	4 441	92,3%	37 500	(34,8%)	30 000	(20,0%)



NET SURPLUS/ (DEFICIT) before Depreciation	40 256 708	54 917 814	(36,4%)	38 459 474	(4,5%)	40 488 099	5,3%
Support Service	39 154 029	34 509 322	11,9%	42 014 476	7,3%	43 236 070	2,9%
Depreciation		1 597 342	0,0%	-	0,0%	-	-
NET SURPLUS/ (DEFICIT) for the period	1 102 679	18 811 149	(1605,9%)	(3 555 002)	(422,4%)	(2 747 971)	(22,7%)

TOTAL CAPITAL EXPENDITURE	8 442 000	6 017 917	28,7%	6 352 500	(24,8%)	2 835 000	(55,4%)
Motor vehicles	168 000	-	100,0%	105 000	(37,5%)	-	(100,0%)
Computer software	556 500	12 396	97,8%	1 680 000	201,9%	1 260 000	(25,0%)
Office furniture and equipment	735 000	291 561	60,3%	525 000	(28,6%)	315 000	(40,0%)
Building improvements	6 300 000	4 953 178	21,4%	3 360 000	(46,7%)	735 000	(78,1%)
Computer hardware	682 500	760 783	(11,5%)	682 500	0,0%	525 000	(23,1%)

SUPPORT SERVICES

BUDGET 2020/21 INCOME AND EXPENDITURE

ANNUAL BUDGET FOR THE YEAR 2020/2021							
SUPPORT SERVICE EXPENDITURE BUDGET FOR 2020/21							
	A	B		C	1	D	2
	SUPPORT SERVICE BUDGET	SUPPORT SERVICE ACTUAL	% Variance (A / B)	SUPPORT SERVICE APPROVED BUDGET	% Variance (A / C)	SUPPORT SERVICE BUDGET	% Variance (E / C)
DESCRIPTION	2018/19	2018/19		2019/20		2020/21	
TOTAL OPERATING EXPENDITURE	186 447 746	162 393 034	12,9%	200 068 933	7,3%	205 886 049	2,9%
National/International/Initiatives	620 752	508 975	18,0%	310 376	(50,0%)	340 000	9,5%
Publications and Communications	3 215 000	2 706 889	15,8%	2 891 000	(10,1%)	2 820 000	(2,5%)
Sponsorships	-	40 230	0,0%	334 000	0,0%	250 000	(25,1%)
Advertising	150 000	1 975 146	(1216,8%)	787 174	424,8%	775 000	(1,5%)
Stakeholder Meetings	-	162 699	0,0%	-	0,0%	-	0,0%
Tribunals and Hearings	-	62 792	0,0%	-	0,0%	-	0,0%
Advertising, Promotion and Communication	3 985 752	5 456 732	(36,9%)	4 322 550	8,5%	4 185 000	(3,2%)
Gross Salaries	86 365 570	80 452 642	6,8%	88 209 515	2,1%	92 947 408	5,4%
Learnership Allowance	958 320	276 942	71,1%	1 149 984	20,0%	1 264 983	10,0%
Internship Allowance	1 132 561	747 760	34,0%	1 359 073	20,0%	1 494 981	10,0%
Leave Pay: Staff	796 040	616 324	22,6%	853 803	7,3%	915 277	7,2%
Leave pay: Regulator Members	28 098	223 241	(694,5%)	429 703	1429,3%	459 725	7,0%
Performance Bonus: FTRM	1 076 834	1 612 642	(49,8%)	1 251 699	16,2%	1 315 536	5,1%
Performance Bonus: Staff	15 977 634	12 112 798	24,2%	16 318 761	2,1%	17 195 270	5,4%
Remuneration: FTRM	7 691 673	6 783 400	11,8%	8 940 707	16,2%	9 396 683	5,1%
Publication Incentives	300 000	45 000	85,0%	150 000	(50,0%)	150 000	0,0%
Remuneration - PTRM and Ext. Members	2 889 663	2 197 137	24,0%	3 048 595	5,5%	3 170 539	4,0%
Salaries Temporary Staff	1 000 000	1 244 585	(24,5%)	1 200 000	20,0%	1 300 000	8,3%



Employment cost	118 216 393	106 312 471	10,1%	122 911 842	4,0%	129 610 402	5,4%
Maintenance	6 000 000	6 777 050	(13,0%)	1 076 707	(82,1%)	1 150 000	6,8%
Office Rental	900 000	886 680	1,5%	1 050 000	16,7%	-	(100,0%)
Motor Vehicle Expenses	225 000	235 124	(4,5%)	250 000	11,1%	240 000	(4,0%)
Facility Management Operating expenses	-	-	0,0%	5 073 293	0,0%	5 428 424	7,0%
Municipal Charges	3 226 000	2 917 248	9,6%	3 694 000	14,5%	3 000 000	(18,8%)
Insurance	647 075	539 237	16,7%	680 000	5,1%	730 000	7,4%
Facilities Maintenance	10 998 075	11 355 339	(3,2%)	11 824 000	7,5%	10 548 424	(10,8%)
Office Operational Expenses	1 366 386	1 342 543	1,7%	1 320 477	(3,4%)	292 000	(77,9%)
PPE Tools	-	-	0,0%	-	0,0%	-	0,0%
Office operational expenses-Lease Payments	1 400 000	1 176 023	16,0%	1 440 000	2,9%	1 440 000	0,0%
Postage & Courier Services	248 996	43 023	82,7%	226 552	(9,0%)	87 150	(61,5%)
Information Technology Operations	1 638 985	1 160 134	29,2%	1 800 000	9,8%	2 040 000	13,3%
Software License Fees	3 500 000	3 507 668	(0,2%)	2 200 000	(37,1%)	3 700 000	68,2%
Stationery and Printing	1 457 304	1 213 141	16,8%	1 455 000	(0,2%)	1 274 500	(12,4%)
Organizational Membership Subscriptions	1 416 447	1 851 893	(30,7%)	1 487 977	5,0%	1 544 169	3,8%
Professional Membership Subscriptions	80 027	66 430	17,0%	84 551	5,7%	78 310	(7,4%)
Telephone and fax	913 930	899 216	1,6%	750 000	(17,9%)	810 000	8,0%

SUPPORT SERVICE (cont.)

EXPENDITURE BUDGET FOR 2020/21

	A	B		C	1	D	2
	SUPPORT SERVICE BUDGET	SUPPORT SERVICE ACTUAL	% Variance (A / B)	SUPPORT SERVICE APPROVED BUDGET	% Variance (A / C)	SUPPORT SERVICE BUDGET	% Variance (E / C)
DESCRIPTION	2018/19	2018/19		2019/20		2020/21	

Office Administration	12 022 075	11 260 071	6,3%	10 764 557	(10,5%)	11 266 129	4,7%
Consultants' Fees	5 440 000	3 661 966	32,7%	8 561 803	57,4%	10 262 000	19,9%
External Auditors	2 434 410	1 329 399	45,4%	2 568 304	5,5%	2 748 085	7,0%
Recruitment	2 000 000	1 095 643	45,2%	785 326	(60,7%)	800 000	1,9%
Legal fees	9 000 000	7 491 210	16,8%	15 000 000	66,7%	15 000 000	0,0%
Internal Audit	2 000 000	1 813 014	9,3%	2 000 000	0,0%	2 000 000	0,0%
Professional fees	20 874 410	15 391 232	26,3%	28 915 433	38,5%	30 810 085	6,6%
Learnership programme	1 000 000	245 392	75,5%	1 000 000	0,0%	1 100 000	10,0%
Study fees	473 329	331 595	29,9%	725 000	53,2%	627 500	(13,4%)
External Busaries	525 000	-	100,0%	525 000	0,0%	525 000	0,0%
Train. & Dev. Full Time Regulator Members	474 209	479 874	(1,2%)	517 925	9,2%	544 338	5,1%
Train. & Dev. Part Time Regulator Members	131 510	31 006	76,4%	150 018	14,1%	157 519	5,0%
Train.& Dev. Staff	3 022 795	806 655,06	73,3%	3 087 334,25	2,1%	3 253 159	5,4%
Travel Costs Regulator Members	4 714 661	2 883 162	38,8%	4 943 029	4,8%	3 708 566	(25,0%)
Travel Costs Staff	4 755 423	3 258 825	31,5%	4 311 774	(9,3%)	4 317 427	0,1%
Travel, Accommodation and Training	15 096 927	8 036 508	46,8%	15 260 080	1,1%	14 233 509	(6,7%)
Bank Charges	143 195	75 609	47,2%	120 000	(16,2%)	100 000	(16,7%)
Catering & Entertain	930 217	1 137 748	(22,3%)	1 370 971	47,4%	1 532 500	11,8%
Employees Wellness	651 202	535 410	17,8%	550 000	(15,5%)	600 000	9,1%
Health and Safety	529 500	496 096	6,3%	529 500	0,0%	500 000	(5,6%)
Loss on Disposal of assets	-	36 799	0,0%	-	0,0%	-	0,0%
Knowledge Centre	3 000 000	2 299 017	23,4%	3 500 000	16,7%	2 500 000	(28,6%)
Other Expenses	5 254 114	4 580 680	12,8%	6 070 471	15,5%	5 232 500	(13,8%)



Depreciation - Office Equipment	-	708 349	0,0%	-	0,0%	-	0,0%
Depreciation - Software	-	1 368 056	0,0%	-	0,0%	-	0,0%
Depreciation - Motor Vehicles	-	147 124	0,0%	-	0,0%	-	0,0%
Depreciation - Hardware	-	1 857 082	0,0%	-	0,0%	-	0,0%
Depreciation - Building	-	3 525 781	0,0%	-	0,0%	-	0,0%
Depreciation	-	7 606 393	0,0%	-	0,0%	-	0,0%

TOTAL CAPITAL EXPENDITURE	40 200 000	28 656 749	28,7%	30 250 000	(24,8%)	13 500 000	(55,4%)
Motor vehicles	800 000	-	100,0%	500 000	(37,5%)	-	(100,0%)
Computer software	2 650 000	59 030	97,8%	8 000 000	201,9%	6 000 000	(25,0%)
Office furniture and equipment	3 500 000	1 388 386	60,3%	2 500 000	(28,6%)	1 500 000	(40,0%)
Building improvements	30 000 000	23 586 560	21,4%	16 000 000	(46,7%)	3 500 000	(78,1%)
Computer hardware	3 250 000	3 622 774	(11,5%)	3 250 000	0,0%	2 500 000	(23,1%)

Funding Requirement (Opex excl Dep + Capex)	226 647 746	191 049 783	15,7%	230 318 933	1,6%	219 386 049	(4,75%)
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LEVY RATES

BUDGET 2020/21

NATIONAL ENERGY REGULATOR (NERSA) 2020/2021 LICENSE FEES AND LEVY RATE CALCULATION

	ELECTRICITY	PIPED-GAS	PETROLEUM PIPELINES	TOTAL
Operating Expenditure - Regulated Industries	97 238 458	39 163 545	31 397 186	167 799 189
Expenditure - Support services allocated	119 413 908	43 236 070	43 236 070	205 886 049
Operating Expenditure	216 652 366	82 399 615	74 633 256	373 685 238
Add: Capital Expenditure	7 830 000	2 835 000	2 835 000	13 500 000
Total Expenditure	224 482 366	85 234 615	77 468 256	387 185 238
Less: Interest Received	(3 402 014)	(1 231 764)	(1 231 764)	(5 865 542)
Less: Rental Income	(41 765)	(15 122)	(15 122)	(72 009)
Less: Registration fees	(20 000)	-	-	(20 000)
Less: Refund of prior year surplus funds	(13 108 967)	(6 022 825)	(5 582 971)	(24 714 763)
Leviable amount	207 909 620	77 964 905	70 638 400	356 512 924
Projected Volumes (from Industry)	232 988 999 MWh	181 335 699 Gj	17 778 000 Kl	
Electricity license fee (c/kWh)	0,08924			
Piped-Gas levy rate (c/Gj)		42,995		
Petroleum Pipeline levy rate (c/litre)			0,39734	
Levy Rate Increase / (Decrease)	0,00%	5,50%	0,00%	



2020/21 - Levy Increase / (Decrease) due to change in:

Volumes	(1,34%)	0,00%	(3,34%)
Operating Expenditure	2,58%	(0,51%)	(0,60%)
Support Service Allocation	1,64%	1,65%	1,79%
Capital Expenditure	(4,74%)	(4,76%)	(5,15%)
Interest received and Other Income	0,88%	0,90%	0,97%
Refund of surplus funds	0,97%	8,22%	6,33%
Total change	0,00%	5,50%	0,00%

REFUNDS TO INDUSTRY

BUDGET 2020/21

SURPLUS TO BE REFUNDED PER INDUSTRY	TOTAL REFUNDS 31 MARCH 2018	Portion of surplus to be refunded in respect of the period ending 2018/19	TOTAL REFUNDS
Electricity	64 489 108	10 635 829	75 124 937
Piped-Gas	32 057 087	(7 965 786)	24 091 301
Petroleum Pipeline	62 815 410	13 839 752	76 655 162
			175 871 400

The surplus funds will be refunded to the relevant industries through a reduction of the levy rate over a period of four years

SURPLUS TO BE REFUNDED PER INDUSTRY	REFUND 2019/20	2021/22	MOVEMENT
Electricity	15 105 678	13 108 967	(1 996 711)
Piped-Gas	12 096 298	6 022 825	(6 073 473)
Petroleum Pipeline	9 907 502	5 582 971	(4 324 531)
	37 109 478	24 714 763	(12 394 715)



STATEMENT OF FINANCIAL POSITION

BUDGET 2020/21

	notes	2018/19	2019/20	2020/21	2021/22	2022/23
ASSETS						
Current Assets						
Inventory	1	195 985	330 000	363 000	399 300	439 230
Receivables from exchange transactions	2	1 813 742	3 000 000	2 031 391	2 134 992	2 241 742
Receivables from non-exchange transactions	3	29 072 907	28 951 093	29 709 410	30 317 513	30 919 752
Cash and cash equivalents	4	243 940 957	133 795 011	109 080 248	69 785 383	30 490 517
		275 023 591	166 076 104	141 184 049	102 637 188	64 091 240
Non-Current Assets						
Property Plant and equipment		105 656 848	135 247 760	142 747 760	148 747 760,22	156 247 760
Intangible assets		3 385 423	13 187 006	19 187 006	27 187 006	35 187 006
	5	109 042 271	148 434 766	161 934 766	175 934 766	191 434 766
Total Assets		384 065 862	314 510 870	303 118 815	278 571 953	255 526 006
Liabilities						
Current Liabilities						
Payables from exchange transactions	6	29 300 845	10 333 913	8 347 692	6 406 112	4 728 035
Provisions	7	32 918 316	37 967 564	39 776 493	42 446 077	44 853 072
		62 219 161	48 301 477	48 124 185	48 852 189	49 581 107
Net Assets		321 846 701	266 209 393	254 994 630	229 719 764	205 944 899
Reserves						
Revaluation reserve		28 142 725	28 142 725	28 142 725	28 142 725	28 142 725
Accumulated surplus	8	293 703 976	238 066 668	226 851 905	201 577 040	177 802 174
Net Assets		321 846 701	266 209 393	254 994 630	229 719 765	205 944 899

NOTES TO THE STATEMENT OF FINANCIAL POSITION

1. INVENTORY

The budget is for stationery consumables and based on the acceptable level of stock at year-end. The increase in the budget and forecast is based on inflation.

2. RECEIVABLES FROM EXCHANGE TRANSACTIONS

The budget line item is used for prepayments such as knowledge centre subscriptions and the rights to use software.

3. RECEIVABLES FROM NON-EXCHANGE TRANSACTIONS

The balance relates to levies and licence fees owing for the last month of the year and represents a twelve of the budgeted licence fees and levies as the payments are expected to be received within 30 days.

4. CASH AND CASH EQUIVALENT

The decrease in cash and cash equivalent is due to the budgeted deficit.

5. NON-CURRENT ASSETS

The increase in property plant and equipment is as per the capital expenditure budget.

6. PAYABLES FROM EXCHANGE TRANSACTIONS

The balance is for invoices and accruals owing at year-end and its balancing off figure.

7. PROVISIONS

The budget is for the provision for the performance bonus. Increase in Provisions is due to living adjustment increases on performance bonus.

8. ACCUMULATED SURPLUS

The decrease in Accumulated Surplus is due to the budgeted deficits and the refunds to the industries.



PROGRAMME BUDGET

BUDGET 2020/21

	Programme 1	Programme 2	Programme 3	Programme 4	Programme 5	Programme 6	Total
	Setting and/or approval of tariffs and prices	Licensing and Registration	Compliance monitoring and enforcement	Dispute resolution including mediation, arbitration and the resolution of complaints	Setting of rules, guides and codes for regulation	Establishing NERSA as an efficient and effective organisation	
Electricity							
Electricity Regulator	1 670 941 20%	1 670 941 20%	1 670 941 20%	1 670 941 20%	1 670 941 20%	- 0%	8 354 704 100%
Electricity Pricing and Tariffs	34 787 183 100%	- 0%	- 0%	- 0%	- 0%	- 0%	34 787 183 100%
Electricity licencing, Compliance, and Dispute Resolution	- 0%	14 272 868 40%	10 704 651 30%	10 704 651 30%	- 0%	- 0%	35 682 169 100%
Electricity Infrastructure Planning	1 841 440 10%	- 0%	14 731 521 80%	- 0%	1 841 440 10%	- 0%	18 414 402 100%
Support	- 0%	- 0%	- 0%	- 0%	- 0%	119 413 908 58%	119 413 908 58%
Piped-Gas							
Piped Gas Regulation	2 011 221 20%	2 011 221 20%	2 011 221 20%	2 011 221 20%	2 011 221 20%	- 0%	10 056 103 100%
Gas Pricing and Tariffs	11 750 130 100%	- 0%	- 0%	- 0%	- 0%	- 0%	11 750 130 100%
Gas Licencing, Compliance and Dispute Resolution	- 0%	5 100 293 40%	5 100 293 40%	2 550 146 20%	- 0%	- 0%	12 750 731 100%
Gas Competition and Markets	- 0%	- 0%	1 381 974 30%	1 381 974 30%	1 842 632 40%	- 0%	4 606 581 100%
Support	- 0%	- 0%	- 0%	- 0%	- 0%	43 236 070 21%	43 236 070 21%
Petroleum Pipelines							
Petroleum Pipelines Regulation	1 977 669 20%	1 977 669 20%	1 977 669 20%	1 977 669 20%	1 977 669 20%	- 0%	9 888 344 100%
Petroleum Pipeline Tariffs	10 520 978 100%	- 0%	- 0%	- 0%	- 0%	- 0%	10 520 978 100%
Petroleum Licensing, Compliance and Dispute Resolution	- 0%	4 395 145 40%	4 395 145 40%	2 197 573 20%	- 0%	- 0%	10 987 863 100%
Support	- 0%	- 0%	- 0%	- 0%	- 0%	43 236 070 21%	43 236 070 21%
						100%	373 685 238

Note: The % allocation is based on the staff complement of the Organisation in line with the rich-fencing methodology.

373 685 238

BUDGET ASSUMPTIONS AND PARAMTERS

NERSA BUDGET PLANNING ASSUMPTIONS AND PARAMETERS

The planning assumptions and parameters that are to be utilised in preparing the NERSA 2020/21 budget and forecasts for 2021/22 and 2022/23.

1. INTRODUCTION

- 1.1. The 2019/20 Budget is prepared within guidelines from National Treasury.
- 1.2. NERSA continues to comply with cost containment measures and is undertaking appropriate steps to improve on efficiency that results in savings.

2. BUDGETING PRINCIPLES

- 2.1 The budget is aimed at achieving the NERSA objectives is contained in the Strategic Plan and Annual Performance Plan, the development of staff and moving towards becoming a world-class Energy Regulator.
- 2.2. The budget is linked to projects and programmes in the Strategic Plan and Annual Performance Plan.
- 2.3. Expenditure items are justified based on the needs of NERSA, legal requirements, NERSA policies and regulatory mandate.

- 2.4. Costs that can be directly attributable to an industry-specific regulatory function are charged directly to that function.
- 2.5. Costs that cannot directly attributable to an industry-specific regulatory function, but are incurred as common costs in order to support the three industry-specific regulatory functions, are allocated between the three industry-specific regulatory functions using the ratio proportionate to the approved staff complement attributable to the industry-specific function
 - o The current ratio is 58% for the electricity industry regulation; 21% for the petroleum pipeline industry regulation; and 21% for the piped-gas industry regulation. This ratio is mainly based on the staff compliment and it did not materially change with the implementation of the Organization Review project to warrant change in the current distribution.
 - o Current staff compliment per division is as follows:

Division	Number of Employees	% within Regulations Division
Electricity	87	60.84%
Piped gas	30	20.98%
Petroleum Pipelines	26	18.18%
Total Regulated Division	143	100.00%
Support Service	105	-
Total	244	

- 2.6. A cash-flow risk mitigation reserve is held by the Energy Regulator to overcome timing differences between the start of the financial year and the start of levy payment by the industries. The reserve is based on 3 months' employment cost and 4.5% of the annual operating expenditure.



2.7. The funding requirements from each industry is determined for each year to cover the total expenditure (operating and capital) allocated to the regulation of the industry.

2.8. Employment costs are budgeted at the full-approved staff complement adjusted with a 5% vacancy rate and taking into account the projected annual salary increases.

3. ECONOMIC FACTORS

These economic factors will be used to determine the forecast for 2021/22 and 2022/23 financial years.

a. Inflation rate

The outlook for consumer price inflation (CPI) for the next three years is expected to be around an average of 5.0%. The CPI figures are provided by the National Treasury. The information was published by National Treasury in June 2019.

The inflation rate is used to determine the level at which recurrent expenditure items should increase.

Financial Year	2017/18 Actual	2018/19 Actual	2019/20 Approved Budget	2020/21 Budget	2021/22 Forecast	2022/23 Forecast
Inflation rate – CPI	4.7%	5.2%	5.3%	5.1%	5.0%	4.8%

b. Exchange rate of the Rand

This exchange rate forecast is based on the information provided by the National Treasury in the 2019 Medium Term Expenditure Framework (MTEF) Technical Guidelines. The information was published by National Treasury in June 2019.

The exchange rate is used when calculating the budget for computer software subscriptions, international training and travel and other goods and services where payments are made in foreign currency.

Financial Year	2017/18 Actual	2018/19 Actual	2019/20 Approved Budget	2020/21 Budget	2021/22 Forecast	2022/23 Forecast
Exchange Rate of the Rand to the US Dollar (R/USD)	13.00	13.75	13.07	14.67	14.79	14.07

c. Economic growth rate

The economic growth forecast is based on the information provided by the Bureaux for Economic Research. The information was published in July 2019.

Financial Year	2016/17 Actual	2017/18 Actual	2018/19 Approved Budget	2019/20 Budget	2020/21 Forecast	2021/22 Forecast
Economic Growth rate %	0.4%	1.4%	0.8%	0.2%	1.1%	1.9%

4. TREND ANALYSIS

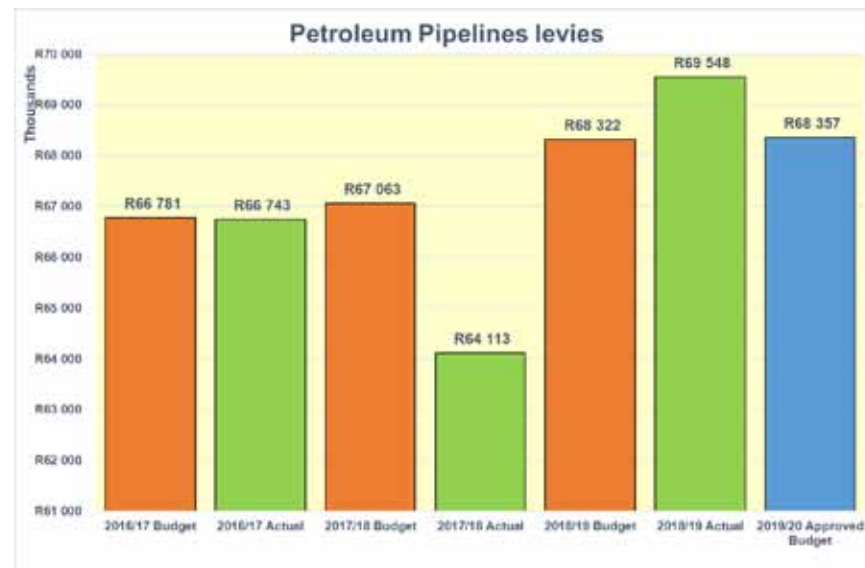
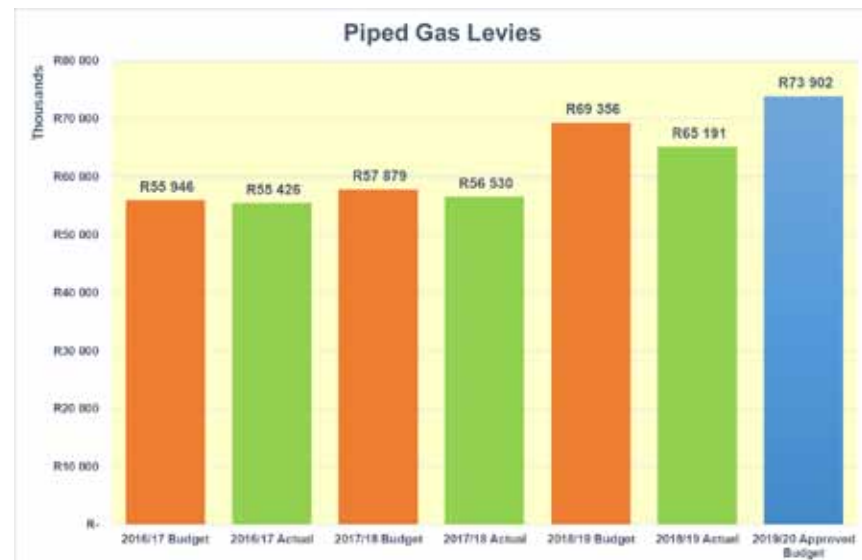
The purpose of this trend analysis is to review historical trends between Budget and Actual amounts for Levies Received, Operating Expenditure and Capital Expenditure.

4.1. Levies Received

Actual Levies Received were historically under budgeted. This process has now been streamlined and the budget as well as the forecasted amounts are improving.

Financial Year	Actual	Budget	Actual	Budget	Actual	Budget
	2016/17	2016/17	2017/18	2017/18	2018/19	2018/19
	R'000	R'000	R'000	R'000	R'000	R'000
License fees from Electricity	154 012	166 210	181 988	177 563	191 611	194 487
Levies from Piped Gas	55 426	55 946	56 530	57 879	65 191	69 356
Levies from Petroleum Pipeline	66 743	66 781	64 113	67 063	69 548	68 322
Total Levies received	276 181	288 937	302 631	302 505	326 350	332 165
% Variance – (Under)		(4.41%)		0.04%		(1.75%)





4.2. Operating Expenditure

Historically NERSA Operating expenditure is under-budget.

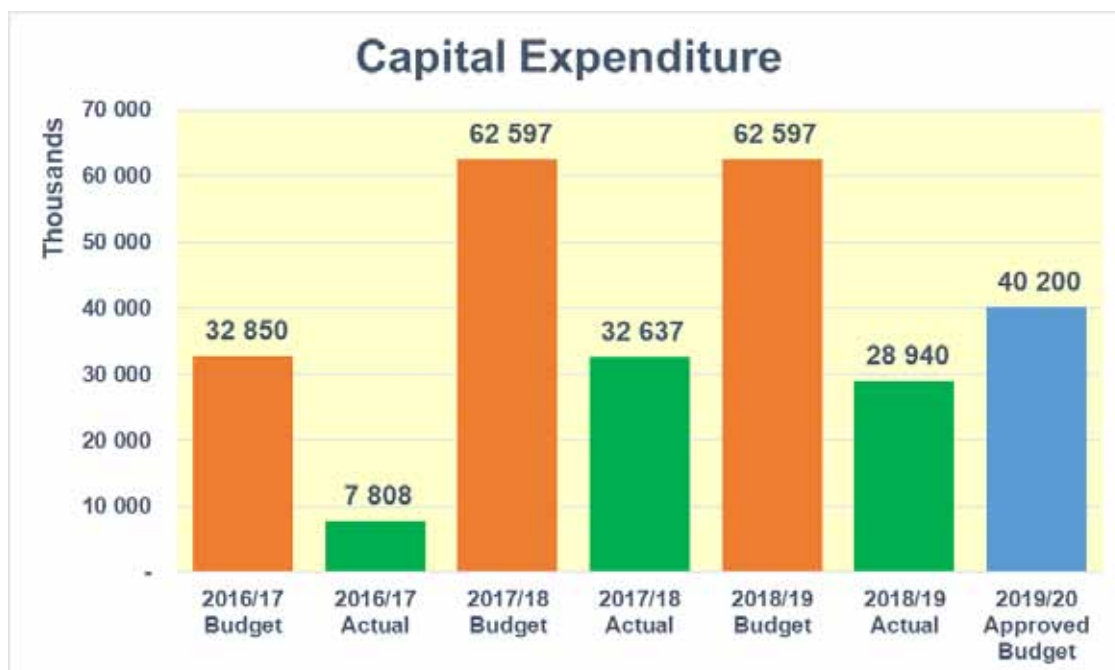
Financial Year	Actual 2016/17	Budget 2016/17	Actual 2017/18	Budget 2017/18	Actual 2018/19	Budget 2018/19
	R'000	R'000	R'000	R'000	R'000	R'000
Operating Expenditure	266 924	286 269	279 752	305 774	298 841	341 668
% Variance – Under		6.75%		8.51%		12.53%



4.3. Capital Expenditure

The historical under-expenditure on capex is due to the delays and postponement on the refurbishment of the building and the development of the NERSA Enterprise System.

Financial Year	Actual 2016/17	Budget 2016/17	Actual 2017/18	Budget 2017/18	Actual 2018/19	Budget 2018/19
	R'000	R'000	R'000	R'000	R'000	R'000
Capital Expenditure	7 808	32 850	32 637	62 597	28 941	62 597
% Variance – Under		76.23%		47.86%		53.77%



5. PROGRAM BUDGETING

5.1. Expenditure/Cost allocation per programme per industry (%)

- These cost centres perform various activities across the six programmes.
- For purposes of allocating expenditure/cost to the six programmes, a percentage based on time spent on the programme by each cost centre is used as demonstrated below.

a) Electricity industry regulator cost centres allocation

Cost Centres	Programmes						Total %
	1	2	3	4	5	6	
Electricity Regulation	20%	20%	20%	20%	20%	-	100%
Electricity Pricing & Tariffs	60%	10%	10%	10%	10%	-	100%
Electricity Licensing, Compliance & Dispute Resolution	-	40%	30%	30%	-	-	100%
Electricity Infrastructure Planning	10%	-	80%	-	10%	-	100%
Special Support Units	-	-	-	-	-	58%	58%

b) Piped-gas industry regulator cost centres allocation

Cost Centres	Programmes						Total %
	1	2	3	4	5	6	
Piped-Gas Regulation	20%	20%	20%	20%	20%	-	100%
Gas Pricing & Tariffs	100%	-	-	-	-	-	100%
Gas Licensing, Compliance & Dispute Resolution	-	40%	40%	20%	-	-	100%
Gas Competition and Markets	-	-	30%	30%	40%	-	100%
Special Support Units	-	-	-	-	-	21%	21%



c) Petroleum pipeline industry regulator cost centres allocation

Cost Centres	Programmes						
	1	2	3	4	5	6	Total %
Petroleum Pipeline Regulation	20%	20%	20%	20%	20%	-	100%
Petroleum Licensing, Compliance & Dispute Resolution	-	40%	40%	20%	-	-	100%
Petroleum Pipelines Tariffs	100%	-	-	-	-	-	100%
Special Support Units	-	-	-	-	-	21%	21%

6. INDUSTRY VOLUMES AND GROWTH

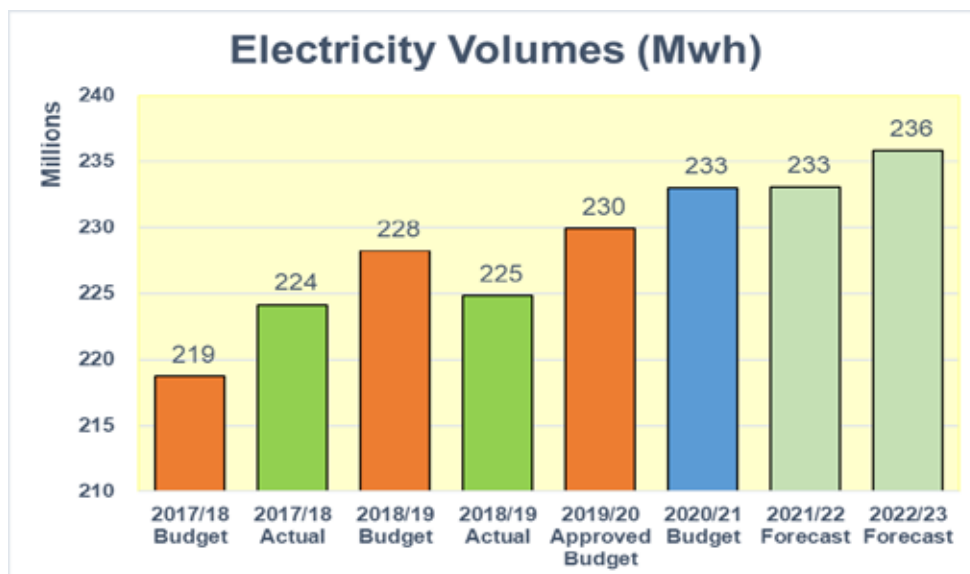
Industry volumes are used in calculating the levy rate payable by each industry based on the required expenditure budget minus any refunds from accumulated surpluses approved by the Energy Regulator.

The budgeted and forecasted volumes amounts were provided by licensees in the regulated industries. For the forecast of 2021/22 and 2022/23 the percentage increase is the lower of the economic growth rate or the amount provided by licensees.

a) Electricity Volumes

The budgeted volumes are based on ESKOM projections. Independent Power Production (IPP) is based on the Multi Year Price Determination 4 sales production and production plans

ELECTRICITY	Actual 2017/18	Actual 2018/19	Approved Budget 2019/20	Budget 2020/21	Forecast 2021/22	Forecast 2021/22
Net electricity sent out (MWh): ESKOM	212 793 857	212 183 370	218 406 113	217 764 000	214 332 000	213 369 000
Net electricity sent out (MWh): IPP	11 356 704	12 622 125	11 495 059	15 224 000	18 719 000	22 462 800
Total Net Electricity sent out	224 150 561	224 805 495	229 901 172	232 988 000	233 051 000	226 171 140
Volume growth %		0.29%	2.27%	1.34%	0.03%	1.19%



Electricity Volumes Forecast risk factors:

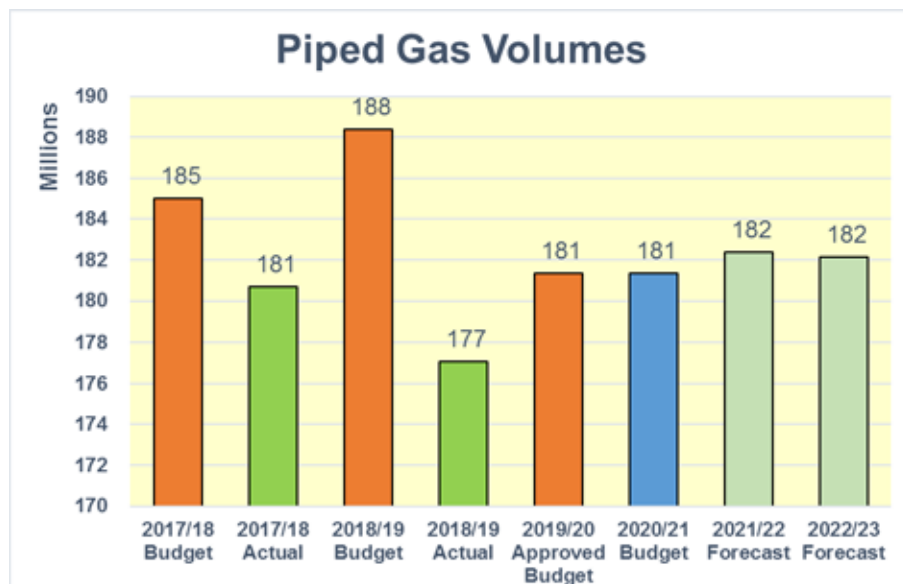
- Energy availability factors: The ratio of available energy over the nominal energy
- Projected Imports and Wheeling of Energy-Energy bought internationally which flows into South Africa might reduce the projected electricity volumes.

b) Piped Gas Volumes

The budgeted volumes are based on Sasol Gas projections.

PIPED-GAS	Actual 2017/18	Actual 2018/19	Approved Budget 2019/20	Budget 2020/21	Forecast 2021/22	Forecast 2021/22
Piped-gas volume delivered at inlet flange of licensed pipelines (GJ)	180 688 997	177 077 029	181 336 478	181 335 699	182 383 054	182 137 610
Piped-gas volume growth %		(2.00%)	2.41%	(0.00%)	0.58%	(0.13%)





Piped Gas Volumes Forecast risk factors:

- Large volume customer consultation (planned shutdowns, production plans).
- Implications of downturn\upturn in certain sectors i.e. steel industry.
- The impact of Load shedding and Labour unrest on production.

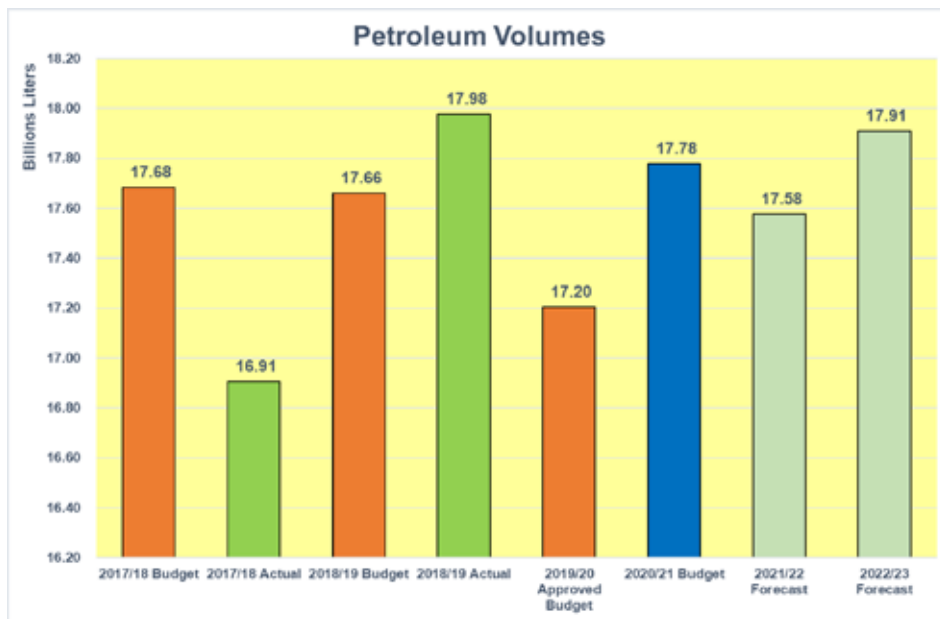
C) Petroleum Pipelines Volumes

The budgeted volumes are based in Transnet Pipelines projections.

PETROLEUM PIPELINES	Budget 2016/17	Actual 2016/17	Budget 2017/18	Actual 2017/18	Budget 2018/19	Actual #2018/19	Approved Budget 2019/20	Budget 2020/21	Forecast 2021/22	Forecast 2021/22
Petroleum volumes delivered at Inlet flanges (Billion Litres)	16.87	16.86	17.68	16.91	17.66	17.98	17.20	17.78	17.56	17.91
Variance: Budget vs Actual	0.06%		(4.40%)		1.080%					
Variance: Year on year actual		(3.07%)		0.28%		6.33%	-	-	-	
Variance: Year on year budget	2.33%		4.48%		(0.14%)		(2.58%)	3.34%	(1.14%)	1.90##

The budgeted volumes for 2017/18 increased by 4.4/% as compared with budgeted volumes of the previous year (2016/17) and this resulted in Budget vs Actual under-recovery of 4.40% for 2017/18. This increase was normalised in 2018/19 where the actual volumes increased by 6.33% as compared to the actual volumes of the previous financial year.

Transnet provided volumes of 18 226 000 kl for an increase of 3.70%. This was limited to the economic growth rate of 1.9% received from the Bureau of economic research.



Petroleum Pipelines Volumes Forecast risk factors:

- Slow economic growth
- More fuel efficient vehicles
- Fuel hikes resulting in customers spending less on fuel and looking for alternative means
- Products by passing the pipelines system
- Refinery shutdown



7. SALARY PROJECTIONS

	Actual 2016/17	Actual 2017/18	Actual 2018/19	Approved Budget 2019/20	Budget 2020/21	Forecast 2021/22	Forecast 2021/22
Salary Increase: Staff Members	7.2%	8.1%	8.2%	7.3%	6.1%	6.0%	4.8%
Salary Increase: Members of Management	6.2%	7.3%	7.2%	7.3%	5.1%	5.0%	4.8%
Average Pay Progression %	-	-	-	1.0%	1.0%	1.0%	1.0%
Permanent Staff (Headcount)	166	209	219	248	248	248	248
Permanent Employees Salary Bill (excl. bonuses)	R126.4M	R148.5M	R172.1M	R198.4M	R203.7M	R217.5M	R218.4M
Temporary Staff (Headcount)	52	15	4	4	4	4	4
Temporary Employees Salary Bill	R21.8M	R10.4M	R1.4M	R1.2M	R1.3M	R1.5M	R1.6M
FTRM (Headcount)	3	3	4	3	4	4	4
FTRM Salary Bill (excl. bonuses)	R4.2M	R6.8M	R6.8M	R8.9M	R9.4M	R9.9M	R10.3M
Performance Bonus Staff #	R22.2M	R24.3M	R26.5M	R36.7M	R37.7M	R40.2M	R40.4M
Bonus/ Salaries % Staff	18.5%	15.98%	N/A#	18.5%	18.5%	18.5%	18.5%
Average Performance Staff	3.9	3.8	N/A#	4	4	4	4

	Actual 2016/17	Actual 2017/18	Actual 2018/19	Approved Budget 2019/20	Budget 2020/21	Forecast 2021/22	Forecast 2021/22
Average Performance Score FTRM	3.9	N/A###	N/A###	4	4	4	4
Bonus/ Salaries % FTRM #	13.38	N/A###	N/A###	14.0%	14.0	14.0	14.0
Performance Bonuses FTRM	R0.7M	R0.6M	R1.1M	R1.3M	R1.3M	R1.4M	R1.5M
NERSA Annual Performance	98%	97%	99%	100%	100%	100%	100%

Performance bonuses relates to the performance of the previous financial year. The amounts are as per the Annual Financial Statements. Some members may not have received the bonuses as they were due but these owing bonuses have been provided for.

Performance bonus for staff members and FTRM for 2018/19 have not yet been finalised and these are provided for.

Performance bonus for FTRM for 2017/18 are awaiting moderation and these are provided for.

As NERSA is a knowledge-based institution, the retention of staff is a priority and it is therefore important that the salary is market related for the skills necessary that is required.

7.1 The above estimated salary increase of CPI +2% for 2020/21, CPI + 0.5% for 2021/22 and CPI for 2022/23

7.2 NERSA is budgeting for temporary staff standing in for permanent staff going on maternity leave and for contingent projects.

7.3 The budget and forecast for performance bonuses are based on the average of previous year's actual performance scores per employee.



PART E: TECHNICAL INDICATOR DESCRIPTIONS

5. Performance Indicators

These indicators are divided in programmes as well as in the following functional areas:

- Electricity Industry Regulation
- Piped-Gas Industry Regulation;
- Petroleum Pipelines Industry Regulation;
- Transversal Regulatory; and
- Organisational.

5.1. ELECTRICITY INDUSTRY REGULATION

5.1.1. Programme 1: Setting and/or approval of tariffs and prices

Indicator title	% of complete tariff applications of licensed distributors for increases <u>higher than the guideline and benchmark</u> considered by the relevant committee or the Energy Regulator within the stated timeframe	% of complete tariff applications of licensed distributors for <u>increases within the guideline and benchmark</u> considered by the relevant committee or the Energy Regulator within the stated timeframe
Definition	This is the percentage of complete tariff applications from licensed distributors for increases higher than the guideline and benchmark that are considered by the Regulator Executive Committee or the Electricity Subcommittee (depending on delegation) and submitted to the Energy Regulator for a final decision, in compliance with the legislated timeframes.	This is the percentage of complete tariff applications from licensed distributors for increases within the guideline and benchmark that are considered by the Regulator Executive Committee or the Electricity Subcommittee (depending on delegation) and submitted to the Energy Regulator for a final decision, in compliance with the legislated timeframes.
Source of data	Tariff Applications and D Forms; Tariff analysis schedules	Tariff Applications and D Forms; Tariff analysis schedules
Method of calculation / assessment	$((\text{number of tariff applications approved within 60 days of receipt of complete application}) / (\text{number of received tariff applications})) * 100$	$((\text{number of tariff applications approved within 60 days of receipt of complete application}) / (\text{number of received tariff applications})) * 100$
Means of verification	Applications; Reasons for Decisions; Minutes of REC and ELS meetings	Applications; Reasons for Decisions; Minutes of REC and ELS meetings
Assumptions	Complete applications received from licensees	Complete applications received from licensees
Calculation Type	Non-cumulative	Non-cumulative

Indicator title	% of complete tariff applications of licensed distributors for increases <u>higher than the guideline and benchmark</u> considered by the relevant committee or the Energy Regulator within the stated timeframe	% of complete tariff applications of licensed distributors for <u>increases within the guideline and benchmark</u> considered by the relevant committee or the Energy Regulator within the stated timeframe
Reporting cycle	Quarterly	Quarterly
Desired performance	100% of complete tariff applications of licensed distributors for increases higher than the guideline and benchmark considered by the ELS within 60 working days of receipt of complete application	100% of complete tariff applications of licensed distributors for increases within the guideline and benchmark considered by the REC within 60 working days of receipt of complete application.
Indicator Responsibility	EM (ELR) and HOD (EPT)	EM (ELR) and HOD (EPT)

Indicator title	Number of reports on the monitoring of the implementation of IBTs by eligible licensed distributors in South Africa considered by the relevant committee or the Energy Regulator within the stated timeframe	Energy Regulator decision on the review of Eskom's RCA application for the previous financial year within the stated timeframe
Definition	These are reports aimed at providing the Regulator with information on how licensed distributors implement the IGTs	This is the decision of the Regulator on the Regulatory Clearing Account application which is based on the evaluation of the account (for the purpose of determining the pass-through) will be done towards the end of Eskom's financial year (approximately 2 months prior to year-end) with actuals for the 9 months and Eskom projections to year end/
Source of data	Tariff Applications and D Forms; Tariff analysis schedules	RCA application; Information supplied by Eskom
Method of calculation / assessment	Add up number of reports per year	Decision of the Energy Regulator
Means of verification	Submissions to ELS/REC; Minutes of REC and ELS meetings	Applications; Reasons for Decisions; Minutes of ER meetings
Assumptions	Information provided by licensed distributors eligible for IBT implementation	Eskom submits complete application
Calculation Type	Cumulative	Cumulative
Reporting cycle	Every 3 years	Annual
	One three-yearly report on the monitoring of the implementation of IBTs by licensed distributors in South Africa eligible for IBT implementation considered by ELS/REC by 31 March 2023	Energy Regulator decision on the review of Eskom's RCA application for 2019/20 within 6 months after receipt of complete application
Indicator Responsibility	EM (ELR) and HOD (EPT)	EM (ELR) and HOD (EPT)



Indicator title	Number of reports on the proposed guidelines and benchmarks for the next financial year considered by the relevant committee or the Energy Regulator within the stated timeframe	Energy Regulator decision on the review of Eskom's complete revenue application for year 1 of MYPD 5 considered by the relevant committee or the Energy Regulator within the stated timeframe
Definition	These are reports in which proposed municipal guidelines and benchmarks for the forthcoming financial year are stated, based on an analysis that was performed, taking into account the MYPD3, the current financial year's Municipal tariff increases and benchmarks as well as inflation targets and others.	This is the decision of the Regulator on review of Eskom's revenue application, based on the Multi Year Price Determination (MYPD) – which incorporates some of the Rate of Return (RoR) and incentive based principles through the introduction of the transmission and distribution service incentive schemes and the energy efficiency demand side management (EEDSM) schemes.
Source of data	Reasons for Decision of MYPD3 and previous Municipal tariff increases and benchmarks; Guidelines for Municipal tariff increases and Benchmarks for the current financial year; and minutes of ELS and ER meetings	Eskom's revenue application; Information supplied by Eskom
Method of calculation / assessment	Number of reports per year	Decision of the Energy Regulator
Means of verification	Submissions to ELS/REC; Minutes of REC and ELS meetings	Applications; Reasons for Decisions; Minutes of ER meetings
Assumptions	Eskom submit their ERTSA application on time	Eskom submits complete application
Calculation Type	Cumulative	Cumulative
Reporting cycle	Annual	Annual
Desired performance	One report on the proposed guidelines and benchmarks for 2021/22 considered by the ELS/REC within 3 months after the decision on the ERTSA	Energy Regulator decision on the review of Eskom's complete revenue application for year 1 of MYPD 5 considered by ER within 6 months after receipt of complete application
Indicator Responsibility	EM (ELR) and HOD (EPT)	EM (ELR) and HOD (EPT)

Indicator title	Number of reports on the analysis of Eskom's performance based on submitted Regulatory Financial Reports (RFRs) considered by the relevant committee or the Energy Regulator within the stated timeframe	Number of reports on Eskom's ERTSA for the coming financial year considered by the relevant committee or the Energy Regulator within the stated timeframe
Definition	These reports provide the Regulator with information on Eskom's performance, which are based on an analysis of Eskom's Regulatory Financial Reports and on the MYPD3 determination.	The decision is based on the review of Eskom's annual application to adjust the tariffs applicable to the respective customer groups; the annual submission of a proposed schedule of standard tariffs applicable to each of the customer groups for each year of the MYPD as well as the Reasons for Decision (RfD).
Source of data	Eskom report on its actual performance against the MYPD3	ERTSA Application by Eskom
Method of calculation / assessment	Add up number of reports per year	Application of tariff model
Means of verification	Submissions to ELS/REC; Minutes of REC and ELS meetings	Reasons for Decision and Minutes (ELS and Energy Regulator).
Assumptions	Eskom submits completed RFRs	Eskom submits complete application
Calculation Type	Cumulative	Cumulative
Reporting cycle	Annual	Annual
Desired performance	One report on the analysis of Eskom's performance based on submitted Regulatory Financial Reports (RFRs) considered by the ELS/REC within 3 months after receipt of completed RFRs from Eskom	One report on analysis of Eskom's ERTSA for the coming financial year considered by the ELS/ER within 6 months after receipt of complete application
Indicator Responsibility	EM (ELR) and HOD (EPT)	EM (ELR) and HOD (EPT)

Indicator title	Number of reports on the calculation of the FBE Rate for the compensation of Eskom considered by the relevant committee or the Energy Regulator within the stated timeframe
Definition	This is the Energy Regulator decision on the determination of the rate at which Eskom can charge the municipalities annually for supplying FBE on its behalf, based on an analysis of Eskom's FBE reports which contains customer statistics and consumption information and an analysis of Eskom's approved IBT (1st block) rate.
Source of data	Eskom - FBE customer statistics and consumption information; NERSA - the Approved 1st block of The Eskom Retail Tariff
Method of calculation / assessment	FBE is in line with the tariff model
Means of verification	Submissions to ELS and ER; minutes of ELS and ER
Assumptions	Eskom submits FBE reports timeously



Indicator title	Number of reports on the calculation of the FBE Rate for the compensation of Eskom considered by the relevant committee or the Energy Regulator within the stated timeframe
Calculation Type	Cumulative
Reporting cycle	Annual
Desired performance	One report on the calculation of the FBE Rate for the compensation of Eskom considered by ELS/ER within 2 months after the approval of ERTSA
Indicator Responsibility	EM (ELR) and HOD (EPT)

5.1.2. Programme 2: Licensing and registration

Indicator title	% of complete licence applications considered by the relevant committee or the Energy Regulator within the stated timeframe	% of complete applications for amendment of licence considered by the relevant committee or the Energy Regulator within the stated timeframe
Definition	This is the percentage of complete licence applications that are considered by the Regulator Executive Committee or the Electricity Subcommittee (depending on delegation) and submitted to the Energy Regulator for a final decision, in compliance with the legislated timeframes.	This is the percentage of applications for the amendment of a licence that are considered by the Regulator Executive Committee or the Electricity Subcommittee (depending on delegation) and submitted to the Energy Regulator for a final decision, in compliance with the legislated timeframes.
Source of data	Licence application	Licence applications
Method of calculation / assessment	(number of processed licence applications within 120 days / number of received licence applications)*100	(number of processed licence applications within 120 days / number of received licence applications)*100
Means of verification	Reasons for decision (RFD). The RFD documents outlines the timelines in the processing of applications and Minutes (REC/ELS/ER depending on delegation)	Reasons for decision (RFD). The RFD documents outlines the timelines in the processing of applications and Minutes (REC/ELS/ER depending on delegation)
Assumptions	Applicants provide all required information to accept application for analysis	Applicants provide all required information to accept application for analysis

Indicator title	% of complete licence applications considered by the relevant committee or the Energy Regulator within the stated timeframe	% of complete applications for amendment of licence considered by the relevant committee or the Energy Regulator within the stated timeframe
Calculation Type	Non-cumulative	Non-cumulative
Reporting cycle	Quarterly	Quarterly
Desired performance	100% of complete licence applications considered by the ER within 120 working days after the period of objections expired and no objections were received or after objections are addressed	100% of complete applications for amendment of licence considered by the ELS/REC within 120 working days from receipt of all required information or after objections are addressed
Indicator Responsibility	EM (ELR) and HOD (ELC)	EM (ELR) and HOD (ELC)

Indicator title	% of complete applications for registration of electricity generation facilities considered by the relevant committee or the Energy Regulator within the stated timeframe
Definition	This is the percentage of complete applications for registration of electricity generation activities that are considered by the Regulator Executive Committee or the Electricity Subcommittee (depending on delegation) and submitted to the Energy Regulator for a final decision, in compliance with the legislated timeframes.
Source of data	Registration applications
Method of calculation / assessment	$(\text{number of processed licence applications within 60 days} / \text{number of received licence applications}) * 100$
Means of verification	Applications; Reasons for decision (RFD). The RFD documents outlines the timelines in the processing of applications and Minutes (REC/ELS/ER depending on delegation)
Assumptions	All required information is received from applicants
Calculation Type	Non-cumulative
Reporting cycle	Quarterly
Desired performance	100% of complete applications for registration of electricity generation facilities considered by the ELS within 60 days from receipt of all required information
Indicator Responsibility	EM (ELR) and HOD (ELC)



5.1.3. Programme 3: Compliance monitoring and enforcement

Indicator title	Number consolidated distribution audit reports on the state of compliance of licensees with licence conditions considered by the relevant committee or the Energy Regulator within the stated timeframe	Number of consolidated generation audit reports on the state of compliance of power stations with licence conditions considered by the relevant committee or the Energy Regulator the stated timeframe within the stated timeframe
Definition	These are annual reports on all the audits NERSA conducted on the state of distribution licensees' compliance with licence conditions, including audit findings	These are annual reports on all the audits NERSA conducted on the state of generation licensees' compliance with licence conditions, including audit findings
Source of data	Compliance audit reports	Compliance audit reports
Method of calculation / assessment	Number of reports per year	Number of reports per year
Means of verification	Submissions to ELS/REC; minutes of ELS/REC	Submissions to ELS/REC; minutes of ELS/REC
Assumptions	Audits completed as planned	Audits completed as planned
Calculation Type	Cumulative	Cumulative
Reporting cycle	Annually	Annually
Reporting cycle	One consolidated distribution audit report on the state of compliance of licensees with licence conditions considered annually by the ELS/REC by 31 March	One consolidated generation audit report on the state of compliance of power stations with licence conditions considered annually by the ELS/REC by 31 March
Indicator Responsibility	EM (ELR) and HOD (ELC)	EM (ELR) and HOD (ELC)

Indicator title	Number of consolidated transmission audit reports on the state of compliance of Main Transmission Substations with licence conditions considered by the relevant committee or the Energy Regulator within the stated timeframe	Number of progress reports on the monitoring of the implementation of the corrective action plans by non-complying licensees considered by the relevant subcommittee or the Energy Regulator within the stated timeframe
Definition	These are annual reports on all the audits NERSA conducted on the state of transmission licensees' compliance with licence conditions, including audit findings	These are reports, one each for transmission, generation and distribution licensees, indicating the progress made by licensees' with their corrective action plans, based on the audit findings by NERSA regarding the state of their compliance with license conditions.
Source of data	Compliance audit reports	Compliance audit reports; status reports on the implementation of corrective action plans
Method of calculation / assessment	Number of reports per year	Number of reports per year
Means of verification	Submissions to ELS/REC; minutes of ELS/REC	Submissions to ELS/REC; minutes of ELS/REC
Assumptions	Audits completed as planned	Audits completed as planned
Calculation Type	Cumulative	Cumulative
Reporting cycle	Annually	Annually
Desired performance	One consolidated transmission audit report on the state of compliance of Main Transmission Substations with licence conditions considered annually by the ELS/REC by 31 March	Three reports, one each for transmission, generation and distribution licensees, on the monitoring of the implementation of the corrective action plans by non-complying licensees considered annually by the ELS/REC by 31 March
Indicator Responsibility	EM (ELR) and HOD (ELC)	EM (ELR) and HOD (ELC)



Indicator title	Number of audit reports on the review the annual performance of IDM for the previous financial year considered by the relevant committee or the Energy Regulator within the stated timeframe	Number of audit reports on the Transmission Network Development for the previous financial year projects for compliance with the South African Grid, considered by the relevant committee or the Energy Regulator within the stated timeframe, subject to all information available
Definition	These are annual audit reports of the IDM performance based on Eskom's breakdown of all IDM programmes/ technologies with their estimated costs, demand and energy savings that was submitted to the Energy Regulator with the MYPD application.	These are reports regarding the audits conducted on projects included in Eskom's approved Transmission Development Plan in order to evaluate the compliance of these projects with the approved Grid Code
Source of data	Approved audit report that details the assessment and evaluation of IDM for compliance with the South African Grid Code	Approved audit report that details the assessment and evaluation of projects in Eskom's approved Transmission Development Plan for compliance with the South African Grid Code
Method of calculation / assessment	Number of reports	Number of reports
Means of verification	Submissions to ELS/REC; minutes of ELS/REC	Submissions to ELS/REC; minutes of ELS/REC
Assumptions	Audits completed as planned	Audits completed as planned
Calculation Type	Cumulative	Cumulative
Reporting cycle	Annual	Annual
Desired performance	Audit report on the review the annual performance of IDM for 2019/20 considered by the ELS/REC/ER within 180 working days after receipt of Eskom's IDM audited Annual Report	Audit report on the Transmission Network Development 2019/20 projects for compliance with the South African Grid considered annually by the ELS/REC by 31 March, subject to all information available
Indicator Responsibility	EM (ELR) and HOD (EIP)	EM (ELR) and HOD (EIP)

Indicator title	Number of audit reports on the Distribution Network Development for the previous financial year projects for compliance with the South African Grid, considered annually by the relevant committee or the Energy Regulator within the stated timeframe, subject to all information available	Number of monitoring reports on the performance and progress of Renewable Energy projects for the next financial year, considered annually by the relevant committee or the Energy Regulator within the stated timeframe
Definition	These are reports regarding the audits conducted on projects included in Eskom's approved Distribution Development Plan in order to evaluate the compliance of these projects with the approved Grid Code	These are monitoring reports on the performance of and progress made with renewable energy aimed at informing all stakeholders and decision makers on the status.
Source of data	Approved audit report that details the assessment and evaluation of projects in Eskom's approved Distribution Development Plan for compliance with the South African Grid Code	Reports on the performance and progress of Renewable Energy
Method of calculation / assessment	Number of audit reports per year	Number of reports per year
Means of verification	Submissions to ELS/REC; minutes of ELS/REC	Submissions to ELS/REC; minutes of ELS/REC
Assumptions	Audits completed as planned	Audits completed as planned
Calculation Type	Cumulative	Cumulative
Reporting cycle	Annual	Bi-annually
Desired performance	One audit report on the Distribution Network Development 2019/20 projects for compliance with the South African Grid considered annually by the ELS/REC by 31 March, subject to all information available	Two monitoring reports on the performance and progress of Renewable Energy projects for 2020/21 considered annually by the ELS/REC by 30 September and 31 March respectively
Indicator Responsibility	EM (ELR) and HOD (EIP)	EM (ELR) and HOD (EIP)



5.1.4. Programme 4: Dispute resolution, including mediation, arbitration and handling of complaints

Indicator title	% of disputes/complaints, including initiated investigations, closed within the stated timeframe	Number of reports on the trends regarding to the status of disputes and complaints in the electricity industry considered by the relevant committee or the Energy Regulator within the stated timeframe
Definition	This is the percentage of complaints / disputes closed with set timelines	This is a report compiled on an annual basis, on the trends regarding to and the status of complaints in the electricity industry
Source of data	Records of complaints received	Records of complaints and disputes
Method of calculation / assessment	(number of closed disputes / complaints within 180 days of receipt / number of received complaints)*100	Number of reports per year
Means of verification	Database of all complaints/disputes received and closed	Submissions to ELS/REC; minutes of ELS/REC
Assumptions	Complete information is received from complainants	Audits completed as planned
Calculation Type	Non-cumulative	Cumulative
Reporting cycle	Quarterly	Annually
Desired performance	87% of disputes/ complaints including initiated investigations closed within 120 working days from receipt	One report on the trends regarding to the status of disputes and complaints in the electricity industry considered annually by the ELS/REC by 31 March
Indicator Responsibility	EM (ELR) and HOD (ELC)	EM (ELR) and HOD (ELC)

5.1.5. Programme 5: Setting of rules, guidelines and codes for the regulation of the electricity industry

Indicator title	% of complete applications from the ESI <u>requiring exemptions</u> to the South African grid code, considered by the relevant committee or the Energy Regulator within the stated timeframe	% of complete applications from the ESI <u>requiring amendment</u> to the South African grid code, considered by the relevant committee or the Energy Regulator within the stated timeframe
Definition	This is the percentage of decisions taken regarding applications for exemption from the Grid Code made by the relevant Subcommittee within 60 days from receipt of application	This is the percentage of decisions taken regarding applications for amendment of the Grid Code made by the relevant Subcommittee within 60 days from receipt of application
Source of data	Applications for <u>exemptions</u> of the grid code	Applications for <u>amendments</u> to the grid code
Method of calculation / assessment	(number of applications <u>requiring exemptions</u> completed within 60 days / number of applications for <u>exemptions</u> received)*100	(number of applications <u>requiring amendments</u> completed within 60 days / number of applications for <u>amendments</u> received)*100
Means of verification	Applications; recommendations from the Grid Code Advisory Committee	Applications; recommendations from the Grid Code Advisory Committee
Assumptions	Recommendations from Grid Code Advisory Committee submitted with all required supporting documents	Recommendations from Grid Code Advisory Committee submitted with all required supporting documents
Calculation Type	Non-cumulative	Non-cumulative
Reporting cycle	Quarterly	Quarterly
Desired performance	100% of complete applications from the ESI requiring exemption to the South African grid code, considered by the ELS/REC within 3 months from receipt of complete information	100% of complete applications from the ESI requiring amendment to the South African grid code, considered by the ELS/REC within 3 months from receipt of complete information
Indicator Responsibility	EM (ELR) and HOD (EIP)	EM (ELR) and HOD (EIP)



Indicator title	Number of reports on regulatory advocacy aimed at improvement of the regulatory framework provided through legislation, regulation and government policies considered by the relevant committee or the Energy Regulator within the stated timeframe
Definition	This is the number of reports on gas regulatory advocacy engagements with decision-makers on identified legislative and policy matters
Source of data	Reports on each engagement indicating the reason for and outcome of the engagement
Method of calculation / assessment	Number of reports considered per annum
Means of verification	Submissions to ELS; Minutes of ELS
Assumptions	Reports on each engagement compiled
Calculation Type	Cumulative
Reporting cycle	Annual
Desired performance	One report on regulatory advocacy aimed at improvement of the regulatory framework provided through legislation, regulation and government policies considered annually by the ELS by 31 March
Indicator Responsibility	EM (ELR) and HODs

5.1.6. Programme 6: Administration (Establishing NERSA as an efficient and effective regulator)

Indicator title	Number of System Adequacy Reports considered by the relevant committee or the Energy Regulator within the stated timeframe	Number of customer education programmes undertaken by 31 March
Definition	These are reports in which NERSA indicates the generation system adequacy and performance, as well as capacity outlook for the near future.	This is the number of customer education programmes conducted where NERSA engages its stakeholders in a number of ways, including education programmes
Source of data	Reports from Eskom	Annual plan for customer education programmes
Method of calculation / assessment	Number of reports per year	Number of stakeholder engagements and education programmes held
Means of verification	Submissions to ELS/REC; minutes of ELS/REC	Submissions to ELS; minutes of ELS
Assumptions	Information from Eskom received timeously	Programmes conducted as planned
Calculation Type	Cumulative	Cumulative

Indicator title	Number of System Adequacy Reports considered by the relevant committee or the Energy Regulator within the stated timeframe	Number of customer education programmes undertaken by 31 March
Reporting cycle	Annually	Quarterly
Desired performance	One System Adequacy Report considered annually by the ELS/REC by 31 March	Customer education programmes undertaken annually by 31 March
Indicator Responsibility	EM (ELR)	EM (ELR) and HOD ELC

Indicator title	Number of consolidated reports on the customer education programmes undertaken considered annually by the relevant committee or the Energy Regulator within the stated timeframe
Definition	This is the number of consolidated reports on the customer education programmes undertaken annual – indicating the geographic spread of where the programmes were conducted, the number of attendees and key issues raised at the sessions
Source of data	Reports of each programme conducted
Method of calculation / assessment	Number of reports
Means of verification	Submissions to ELS; minutes of ELS
Assumptions	Individual reports are completed for each programme conducted
Calculation Type	Cumulative
Reporting cycle	Annually
Desired performance	One consolidated report on the customer education programmes undertaken considered annually by the ELS/REC by 31 March
Indicator Responsibility	EM (ELR) and HOD ELC



5.2. PIPED-GAS INDUSTRY REGULATION

5.2.1. Programme 1: Setting and/or approval of tariffs and prices

Indicator title	% of complete maximum price applications considered by the relevant committee or the Energy Regulator within the stated timeframe after date of publication of preliminary assessment of the maximum price applications	% of complete trading margin applications considered by the relevant committee or the Energy Regulator within the stated timeframe after the date of the publication of preliminary assessment of the applications
Definition	This is the percentage of applications for maximum prices of piped-gas considered by the relevant Subcommittee, within a set timeframe, subject to a finding that there is inadequate competition	This is the percentage of trading margin applications by the relevant Subcommittee, within a set timeframe, aimed at enabling the licensee to: a) Recover all efficient and prudently incurred investment and operational costs, and; b) Make a profit commensurate with risk
Source of data	Applications for maximum prices of gas	Applications for trading margin
Method of calculation / assessment	(number of applications for maximum prices completed within 120 days / number of applications for maximum prices received) * 100	(number of trading margin applications completed within 120 days / number of applications for maximum prices received) * 100
Means of verification	Reason for decisions; minutes of ER	Reason for decisions; minutes of ER
Assumptions	Complete applications received from licensees	Complete applications received from licensees
Calculation Type	Non-cumulative	Non-cumulative
Reporting cycle	Quarterly	Quarterly
Desired performance	100% of complete maximum price applications considered by the ER within 120 working days after date of publication of the preliminary assessment of the maximum price applications	100% of complete trading margin applications considered by the ER within 120 working days after the date of the publication of the preliminary assessment of the applications
Indicator Responsibility	EM (GAR) and HOD (GPT)	EM (GAR) and HOD (GPT)

Indicator title	% of complete applications on distinguishing features considered by the relevant committee or the Energy Regulator within the stated timeframe after the date of the publication of preliminary assessment of the applications	% of complete transmission tariff applications considered by the relevant committee or the Energy Regulator within the stated timeframe after date of publication of preliminary assessment of the applications
Definition	This is the percentage of applications on distinguishing features considered by the relevant Subcommittee, within a set timeframe	This is the percentage of transmission tariff applications considered by the relevant Subcommittee, within a set timeframe, subject to a finding that there is inadequate competition
Source of data	Applications for distinguishing features	Applications for transmission tariff
Method of calculation / assessment	(number of trading margin applications completed within 120 days / number of applications for maximum prices received)*100	(number of transmission tariff applications completed within 120 days / number of applications for transmission tariffs received)*100
Means of verification	Reason for decisions; minutes of ER	Reason for decisions; minutes of ER
Assumptions	Complete applications received from licensees	Complete applications received from licensees
Calculation Type	Non-cumulative	Non-cumulative
Reporting cycle	Quarterly	Quarterly
Desired performance	100% of complete applications on distinguishing features considered by the ER within 120 working days after the date of the publication of preliminary assessment of the applications	100% of complete transmission tariff applications considered by ER within 120 working days after date of publication of preliminary assessment of tariff applications
Indicator Responsibility	EM (GAR) and HOD (GPT)	EM (GAR) and HOD (GPT)



Indicator title	Number of calculations of the ROMPCO tariff for gas volumes below 120 million Gigajoule considered quarterly by the relevant committee or the Energy Regulator within the stated timeframe
Definition	This is the number of calculations of the ROMPCO tariff for gas volumes below 120 million Gigajoules considered by the relevant Subcommittee, within a set timeframe
Source of data	Schedule One to the Agreement and PPI from StatsSA, Report containing the ROMPCO tariffs for volumes below 120 GJ
Method of calculation / assessment	Actual number of calculations and publication of the ROMPCO tariff for volumes below 120 Gigajoule
Means of verification	Submissions to PGS; minute of the PGS
Assumptions	Information received timeously from ROMPCO
Calculation Type	Cumulative
Reporting cycle	Quarterly
Desired performance	Four calculations of the ROMPCO tariff for gas volumes below 120 million Gigajoules considered quarterly the PGS
Indicator Responsibility	EM (GAR) and HOD (GPT)

5.2.2. Programme 2: Licensing and Registration

Indicator title	% of complete licence applications considered by the relevant committee within 60 working days from date of close of public comment period or period of applicant's response to objections received	% of applications for licence amendments considered by the relevant committee or the Energy Regulator within the stated timeframe from date of close of public comment period or period of applicant's response to objections received
Definition	This is the percentage of the licence applications considered by the REC or PGS (depending on the delegation) within a set timeframe	This is the percentage of the applications for license amendment, considered by the relevant subcommittee within a set timeframe
Source of data	Licence applications,	Applications for licence amendments
Method of calculation / assessment	$(\text{Number of licence applications considered within 60 days after the end of the objection period or period of applicant's response to objections received}) / (\text{total number of applications received}) * 100$	$(\text{Number of applications for amendments considered within 120 days from receipt of complete application}) / (\text{total number of applications received}) * 100$
Means of verification	Reasons for decision; Minutes of REC / PGS (depending on delegation)	Reasons for decision; Minutes of REC / PGS (depending on delegation)
Assumptions	Complete applications submitted	Complete applications submitted

Indicator title	% of complete licence applications considered by the relevant committee within 60 working days from date of close of public comment period or period of applicant's response to objections received	% of applications for licence amendments considered by the relevant committee or the Energy Regulator within the stated timeframe from date of close of public comment period or period of applicant's response to objections received
Calculation Type	Non-cumulative	Non-cumulative
Reporting cycle	Quarterly	Quarterly
Desired performance	100% of complete licence applications considered by the PGS/REC within 60 working days from date of close of public comment period or period of applicant's response to objections received	100% of complete applications for licence amendments considered by the PGS/REC within 60 working days from date of close of public comment period or period of applicant's response to objections received
Indicator Responsibility	EM (GAR) and HOD (GLC)	EM (GAR) and HOD (GLC)

Indicator title	% of registration are processed and considered by the relevant committee or the Energy Regulator within the stated timeframe
Definition	This is the percentage of the registration applications for operations or activities related to the production and importation of gas, considered by the relevant subcommittee within a set timeframe
Source of data	Registration applications
Method of calculation / assessment	$(\text{Number of registration applications considered within 120 days from receipt of complete application}) / (\text{total number of applications received}) * 100$
Means of verification	Reasons for decision; Minutes of PGS
Assumptions	Complete applications submitted
Calculation Type	Non-cumulative
Reporting cycle	Annual
Desired performance	100% of complete applications for the registration of gas activities are processed and considered by the PGS within 60 working days from date of close of public comment period
Indicator Responsibility	EM (GAR) and HOD (GLC)



5.2.3. Programme 3: Compliance monitoring and enforcement

Indicator title	Number of monthly volume balance reports assessed and analysis reports considered quarterly by the relevant committee or the Energy Regulator within the stated timeframe	Number of audits conducted on the ROMPCO pipeline according to the compliance frameworks and audit reports considered annually by the relevant committee or the Energy Regulator within the stated timeframe
Definition	This is the number of reports on the assessment and analysis of Sasol's volume balance reports considered by the relevant Subcommittee, within 60 days from date of receipt of information from Sasol, in order for NERSA to have regular, systematic, consistent, and sufficient non-financial information relevant to economic regulation, to enhance the efficiency and transparency of the regulatory process.	This is the number of audits conducted on the ROMPCO pipeline according to the compliance framework, non-compliance notices issued (where necessary) and audit reports considered by the relevant committee by the end of the financial year
Source of data	Volume balance report assessment reports	Audit reports
Method of calculation / assessment	Number of reports	Number of reports
Means of verification	Submissions to PGS; Minutes of PGS	Submissions to PGS; Minutes of PGS
Assumptions	Information received timeously from Sasol	Approved received to travel to Mozambique to conduct audit
Calculation Type	Cumulative	Cumulative
Reporting cycle	Quarterly	Annually
Desired performance	Twelve monthly volume balance reports assessed and analysis reports considered quarterly by the PGS	One audit conducted on the ROMPCO pipeline according to the compliance framework and audit reports considered annually by the PGS by 31 March
Indicator Responsibility	EM (GAR) and HOD (GLC)	EM (GAR) and HOD (GLC)

Indicator title	Number of inspections conducted, non-compliance notices issued (where necessary) and inspection reports considered by the relevant committee or the Energy Regulator within the stated timeframe	Number of monitoring reports on the implementation of transmission tariffs considered by the relevant committee or the Energy Regulator within the stated timeframe after one year following the approval of the transmission tariff
Definition	This is the number of inspections conducted aimed at enforcing monitoring and compliance of licensed entities with licence conditions and to issue notices of non-compliance if and when necessary	This is the number of reports on the monitoring of the implementation of transmission tariffs by ROMPCO, Transnet and Sasol Gas respectively, considered by the relevant committee with stated timeframe
Source of data	Approved plan to annual inspections, Inspection reports	Monitoring reports
Method of calculation / assessment	Number of reports	Number of reports
Means of verification	Submissions to PGS; Minutes of PGS	Submissions to PGS; Minutes of PGS
Assumptions	Inspections completed	Analysis of implementation of transmission tariffs completed
Calculation Type	Cumulative	Cumulative
Reporting cycle	Quarterly	Quarterly
Desired performance	Forty-five inspections conducted, non-compliance notices issued (where necessary) and quarterly inspection reports considered by the PGS	Three monitoring reports on the implementation of transmission tariffs (one each for ROMPCO, Transnet and Sasol Gas) considered annually by the PGS by 31 March, after one year following the approval of the transmission tariff
Indicator Responsibility	EM (GAR) and HOD (GLC)	EM (GAR) and HOD (GLC)



Indicator title	Number of reports on the implementation of the RRM for the preceding financial year considered by the relevant committee or the Energy Regulator within the stated timeframe	Number of monitoring reports per licensee on the implementation of Maximum Prices considered annually by the relevant committee or the Energy Regulator within the stated timeframe after one year following the approval of the maximum price
Definition	These are the number of reports on the implementation of the RRM, aimed at achieving uniformity and consistent reporting of information required for tariff setting/approval and performance monitoring, considered by the relevant subcommittee	These are reports on the implementation of maximum prices considered by the relevant Subcommittee, aimed at evaluating compliance.
Source of data	Analysis on the implementation of the RRM	Analysis on the implementation of Maximum Prices
Method of calculation / assessment	Number of reports	Number of reports
Means of verification	Submission to PGS/REC; Minutes of PGS/REC	Submission to PGS/REC; Minutes of PGS/REC
Assumptions	Analysis of the implementation of the RRM completed	Analysis of the implementation of the Maximum Prices completed
Calculation Type	Cumulative	Cumulative
Reporting cycle	Quarterly	Quarterly
Desired performance	Four reports (one for each licensee) on the implementation of the RRM in 2019/20 considered annually by the PGS/REC by 31 March	One monitoring report on the implementation of Maximum Prices per licensee after one year following the approval of the maximum price considered annually by the PGS by 31 March
Indicator Responsibility	EM (GAR) and HOD (GLC)	EM (GAR) and HOD (GLC)

5.2.4. Programme 4: Dispute resolution, including mediation, arbitration and handling of complaints

Indicator title	% of complaint investigations completed and a report on findings considered by the relevant committee or the Energy Regulator within the stated timeframe	% of initiated investigations completed and a report on findings considered by the relevant committee or the Energy Regulator within the stated timeframe
Definition	This is the percentage of investigations into complaints and disputes received, completed within a stated timeframes and a report on the findings considered by the relevant Subcommittee	This is the percentage of initiated investigations within a stated timeframes and a report on the findings considered by the relevant Subcommittee
Source of data	Records of complaints received	Records of complaints initiated, RFD, minutes of relevant Subcommittee
Method of calculation / assessment	$(\text{Number of complaints received completed within 12 months after receipt}) / (\text{total number of applications received}) * 100$	$(\text{Number of initiated investigations completed within 12 months after receipt}) / (\text{total number of initiated investigations}) * 100$
Means of verification	RFD, minutes of PGS	RFD, minutes of PGS
Assumptions	Complete information received from complainant	Initiated investigations completed
Calculation Type	Non-cumulative	Non-cumulative
Reporting cycle	Annual	Annual
Desired performance	50% of complaint investigations completed within 12 months and a report on findings considered by the PGS	50% of initiated investigations completed within 12 months and a report on findings considered by the PGS
Indicator Responsibility	EM (GAR) and (HOD (GPT) or HOD (GLC))	EM (GAR) and (HOD (GPT) or HOD (GLC))



5.2.5. Programme 5: Setting of rules, guidelines and codes for the regulation of the piped-gas industry

Indicator title	Number of reports on the review of guidelines, methodologies, codes or rules for the regulation of the gas industry considered by the relevant committee or the Energy Regulator within the stated timeframe	Number of reports on gas regulatory advocacy considered by the relevant committee or the Energy Regulator within the stated timeframe
Definition	The is the number of reports relating to specific issues relating to either rules, guidelines or codes for the regulation of the piped-gas industry, should a need be identified	This is the number of reports on gas regulatory advocacy engagements with decision-makers on identified legislative and policy matters
Source of data	Reports considered, minutes of relevant Subcommittee	Reports on each engagement indicating the reason for and outcome of the engagement
Method of calculation / assessment	Number of reports considered per annum	Number of reports considered per annum
Means of verification	Submissions to PGS; Minutes of PCG	Submissions to PGS; Minutes of PCG
Assumptions	Need for the review either rules, guidelines or codes identified	Reports on each engagement compiled
Calculation Type	Cumulative	Cumulative
Reporting cycle	Annual	Annual
Desired performance	One report on the review of the framework for conducting adequacy of competition in the gas industry considered annually by the PGS by 31 March	One report on gas regulatory advocacy considered annually by the PGS by 31 March
Indicator Responsibility	EM (GAR), HOD (GLC) and HOD (GPT)	EM (GAR), HOD (GLC) and HOD (GPT)

5.2.6. Programme 6: Administration (Establishing NERSA as an efficient and effective regulator)

Indicator title	Number of reports on stakeholder workshops / meetings considered by the relevant committee or the Energy Regulator within the stated timeframe	Number of reports on new developments in the gas industry considered by the relevant committee or the Energy Regulator within the stated timeframe
Definition	This is the number of reports on stakeholder workshops and meetings regarding pricing and tariffs as well as licensing and compliance monitoring	This is the number of reports on new developments in the gas industry considered by the relevant Subcommittee
Source of data	Reports on each workshop, indicating the reason for and outcome of the workshop	Information gathered on relevant developments
Method of calculation / assessment	Number of reports considered per annum	Number of reports considered per annum
Means of verification	Submissions to PGS; Minutes of PCG	Submissions to PGS; Minutes of PCG
Assumptions	Reports on each engagement compiled	Analysis of new developments concluded
Calculation Type	Cumulative	Cumulative
Reporting cycle	Annual	Bi-annual
Desired performance	One report on stakeholder workshops / meetings considered annually by the PGS by 31 March	Two reports on new developments in the gas industry considered annually by the PGS by 30 September and 31 March
Indicator Responsibility	EM (GAR), HOD (GLC) and HOD (GPT)	EM (GAR), HOD (GLC) and HOD (GPT)



5.3. PETROLEUM PIPELINES INDUSTRY REGULATION

5.3.1. Programme 1: Setting and/or approval of tariffs and prices

Indicator title	% of complete pipeline, storage and loading facility tariff applications considered by the relevant committee or the Energy Regulator within the stated timeframe
Definition	This is the percentage of all the pipeline, storage and loading facility tariff applications considered by the relevant Subcommittee within 8 months of receipt of complete application
Source of data	Applications for tariffs
Method of calculation / assessment	$((\text{Number of tariff applications considered by the relevant Subcommittee within 8 months of receipt of complete application}) / (\text{Total number of tariff applications received})) * 100$
Means of verification	Reasons for Decision; and Minutes of PPS
Assumptions	Complete applications received
Calculation Type	Non-cumulative
Reporting cycle	Annually
Desired performance	75% of complete pipeline, storage and loading facility tariff applications considered by the PPS/ER within 6 months from receipt of complete application
Indicator Responsibility	EM (PPR) and HOD (PPT)

5.3.2. Programme 2: Licensing and Registration

Indicator title	% licence applications considered by the relevant committee or the Energy Regulator within the stated timeframe under the conditions as prescribed in Section 19(1) of the Petroleum Pipelines Act	% applications for licence amendments / revocations considered by the relevant committee or the Energy Regulator within the stated timeframe under the conditions as prescribed in Sections 23 or 24 of the Petroleum Pipelines Act
Definition	This is the percentage of licence applications that will be decided upon within the timelines as prescribed in Section 19(1) of the Petroleum Pipelines Act	This is the percentage of applications for licence amendments that will be decided upon within the timelines as prescribed in Section 19(1) of the Petroleum Pipelines Act
Source of data	Licence applications	Licence amendment applications
Method of calculation / assessment	$(\text{number of applications decided upon within statutory deadlines} / \text{number of received licence applications}) * 100$	$(\text{number of applications decided upon within statutory deadlines} / \text{number of received licence applications}) * 100$
Means of verification	Reasons for decision (RFD) and Minutes of PPS/REC/ER	Reasons for decision (RFD) and Minutes of PPS/REC/ER
Assumptions	Complete applications	Complete applications

Indicator title	% licence applications considered by the relevant committee or the Energy Regulator within the stated timeframe under the conditions as prescribed in Section 19(1) of the Petroleum Pipelines Act	% applications for licence amendments / revocations considered by the relevant committee or the Energy Regulator within the stated timeframe under the conditions as prescribed in Sections 23 or 24 of the Petroleum Pipelines Act
Calculation Type	Non-cumulative	Non-cumulative
Reporting cycle	Quarterly	Quarterly
Desired performance	100% of complete licence applications considered by the PPS/REC/ER within 60 working days under the conditions as prescribed in Section 19(1) of the Petroleum Pipelines Act	100% of complete applications for licence amendments / revocations considered by the PPS/REC/ER within 60 working days under the conditions as prescribed in Sections 23 or 24 of the Petroleum Pipelines Act
Indicator Responsibility	EM (PPR) and HOD (PLC)	EM (PPR) and HOD (PLC)

Indicator title	Number of reports on investigations done into suspected unlicensed activities considered by the relevant committee or the Energy Regulator within the stated timeframe
Definition	This is the number of reports on investigations done into suspected unlicensed activities considered by the relevant Subcommittee
Source of data	Data based on suspected unlicensed activities
Method of calculation / assessment	Number of reports
Means of verification	Submissions to REC, minutes of REC
Assumptions	Investigations completed
Calculation Type	Cumulative
Reporting cycle	Annual
Desired performance	One report on investigations done into suspected unlicensed activities considered annually by the REC by 31 March
Indicator Responsibility	EM (PPR) and HOD (PLC)



5.3.3. Programme 3: Compliance monitoring and enforcement

Indicator title	Number of reports on trends regarding utilisation of storage facilities and third-party access, considered by the relevant committee or the Energy Regulator within the stated timeframe	Number of reports on the implementation of the methodology to determine uncommitted capacity considered by the relevant committee or the Energy Regulator within the stated timeframe
Definition	This is the number of reports on trends regarding the utilisation of storage facilities and 3rd party access, considered by the relevant Subcommittee, aimed at promoting competition in the industry	This is the number of reports on the analysis of the implementation of the methodology to determine uncommitted capacity, considered by the relevant Subcommittee, aimed at promoting 3rd party access
Source of data	Analysis reports	Analysis of the implementation of the methodology to determine uncommitted capacity
Method of calculation / assessment	Number of reports	Number of reports
Means of verification	Submissions to PPS; Minutes of PPS	Submissions to PPS; Minutes of PPS
Assumptions	Analysis of trends completed	Analysis of completed
Calculation Type	Cumulative	Cumulative
Reporting cycle	Bi-annual	Annual
Desired performance	Two reports on trends regarding utilisation of storage facilities and third-party access considered annually by the PPS by the 30 September and 31 March	One report on the implementation of the methodology to determine uncommitted capacity considered annually by the PPS by 31 March
Indicator Responsibility	EM (PPR) and HOD (PLC)	EM (GAR), HOD (GLC) and HOD (GPT)

Indicator title	Number of reports on the construction of new facilities considered by the relevant committee or the Energy Regulator within the stated timeframe	Number of reports on licensees' compliance with statutory reporting requirements considered by the relevant committee or the Energy Regulator within the stated timeframe
Definition	This is the number of reports detailing the compliance of construction licences to licence conditions is developed and considered by the relevant Subcommittee on a quarterly basis	This is a report on the compliance of the licensees on all the statutory reporting requirements considered by the relevant Subcommittee on a quarterly basis
Source of data	Database of identified construction of new facilities	Database on licensees' compliance with statutory reporting requirements
Method of calculation / assessment	Number of reports	Number of reports
Means of verification	Submissions to PPS; Minutes of PPS	Submissions to PPS; Minutes of PPS
Assumptions	Analysis of construction of new facilities completed	Analysis of licensees' compliance with statutory reporting requirements completed

Indicator title	Number of reports on the construction of new facilities considered by the relevant committee or the Energy Regulator within the stated timeframe	Number of reports on licensees' compliance with statutory reporting requirements considered by the relevant committee or the Energy Regulator within the stated timeframe
Calculation Type	Cumulative	Cumulative
Reporting cycle	Quarterly	Quarterly
Desired performance	Four reports on the construction of new facilities considered quarterly by the PPS	Four reports on licensees' compliance with statutory reporting requirements considered quarterly by the PPS
Indicator Responsibility	EM (PPR) and HOD (PLC)	EM (PPR) and HOD (PLC)

5.3.4. Programme 4: Dispute resolution, including mediation, arbitration and handling of complaints

Indicator title	% of complaints investigated and report considered by the relevant committee or the Energy Regulator within the stated timeframe of receipt of complete information form relevant parties
Definition	This is the percentage of the complaints investigated and considered by the relevant subcommittee within 60 days of receipt of complete information form relevant parties
Source of data	Records of complaints received
Method of calculation / assessment	$(\text{number of finalised complaints within 60 days of receipt} / \text{number of received complaints}) * 100$
Means of verification	Submissions for PPS; Minutes of PPS
Assumptions	Investigations completed
Calculation Type	Non-cumulative
Reporting cycle	Annually
Desired performance	100% of complaints investigated and report considered by the PPS within 6 months of receipt of complete information form relevant parties
Indicator Responsibility	EM (PPR) and HOD (PLC)



5.3.5. Programme 5: Setting of rules, guidelines and codes for the regulation of the petroleum pipelines industry

Indicator title	Number of reports on the monitoring of the implementation of the tariff methodology considered by the relevant committee or the Energy Regulator within the stated timeframe	Number of reports on contributions towards alignment between relevant Petroleum legislation and regulations and government policies considered by the relevant committee or the Energy Regulator within the stated timeframe
Definition	This is the number of reports the monitoring of the implementation of the tariff methodology considered by the relevant committee annually	This is the number of reports annually on NERSA's contributions towards the alignment between relevant Petroleum legislation and regulations and government policies
Source of data	Analysis of the implementation of the tariff methodology by licensees	Contribution reports
Method of calculation / assessment	Number of reports	Number of reports
Means of verification	Submissions to PPS; Minutes of PPS	Submissions to PPS; Minutes of PPS
Assumptions	Analysis completed	Analysis completed
Calculation Type	Cumulative	Cumulative
Reporting cycle	Annual	Annual
Desired performance	One report on the monitoring of the implementation of the revised methodology considered annually by the ER by 31 March	One report on contributions towards alignment between relevant Petroleum legislation and regulations and government policies considered annually by the PPS by 31 March
Indicator Responsibility	EM (PPR) and HOD (PPT)	EM (PPR) and HOD (PPT)

5.3.6. Programme 6: Administration (Establishing NERSA as an efficient and effective regulator)

Indicator title	Number of reports on the inland security of supply considered by relevant committee or the Energy Regulator within the stated timeframe
Definition	This is the number of reports on the inland supply forecast considered by the relevant subcommittee, in order to determine if there will be enough supply for the inland market, utilising NERSA's forecast model
Source of data	Analysis of inland supply forecast
Method of calculation / assessment	Number of reports
Means of verification	Submissions to PPS; Minutes of PPS
Assumptions	Analysis completed
Calculation Type	Cumulative
Reporting cycle	Bi-Annually
Desired performance	Two reports on the inland security of supply considered annually by the PPS by 30 September and 31 March
Indicator Responsibility	EM (PPR)



5.4. TRANSVERSAL REGULATORY

5.4.1. Programme 6: Administration (Establishing NERSA as an efficient and effective regulator)

Indicator title	Number of progress report on the implementation of the Regulatory Reporting Manuals regarding the Standard Chart of Accounts (SCOA) for the municipalities considered by the relevant committee or the Energy Regulator within the stated timeframe	Number of reports on the impact of global, regional and local energy trends on NERSA's business considered by the relevant committee or the Energy Regulator within the stated timeframe
Definition	This is the number of progress reports on the implementation of the Regulatory Reporting Manuals regarding the Standard Chart of Accounts (SCOA) for the municipalities considered by the relevant subcommittee	This is the number of reports on the impact of global, regional and local energy trends on NERSA's business considered by the relevant subcommittee
Source of data	Analysis of the implementation of the Regulatory Reporting Manuals regarding the Standard Chart of Accounts (SCOA) for the municipalities	International reports; research report
Method of calculation / assessment	Number of reports	Number of reports
Means of verification	Submissions to REC; Minutes of REC	Submissions to REC; Minutes of REC
Assumptions	Analysis completed	Analysis completed
Calculation Type	Cumulative	Cumulative
Reporting cycle	Annual	Annual
Desired performance	One progress report on the implementation of the Regulatory Reporting Manuals regarding the Standard Chart of Accounts (SCOA) for the municipalities considered annually by the REC by 31 March	One report on the impact of global, regional and local energy trends on NERSA's business considered annually by the REC by 31 May 2020
Indicator Responsibility	SM (RAR)	SM (RAR) and SM (SPM)

Indicator title	2 progress reports on the implementation of the Regulatory Reporting Manuals for Non-financial and financial information, considered by the relevant committee or the Energy Regulator within the stated timeframe	Number of reports on partnership creation to position NERSA as a recognised regulator nationally, regionally and internationally considered by the relevant committee or the Energy Regulator within the stated timeframe
Definition	This is the number of progress reports on the implementation of the Regulatory Reporting Manuals for Non-financial and financial information, considered by the relevant subcommittee	This is the number of reports on partnership creation, which include engagements with other regulators; participation in regulatory associations, events and conferences; and partnerships with other institutions for capacity building purposes – aimed at positioning NERSA as a recognised regulator nationally, regionally and internationally considered by the relevant subcommittee
Source of data	Analysis on the progress made with the implementation of the RRM's for financial and non-financial information	Reports on an overview of international engagements and partnerships activities
Method of calculation / assessment	Number of reports	Number of reports
Means of verification	Submissions to REC; Minutes of REC	Submissions to REC; Minutes of REC
Assumptions	Analysis completed	Analysis completed
Calculation Type	Cumulative	Cumulative
Reporting cycle	Bi-Annual	Bi-Annual
Desired performance	Two reports on the implementation of the Regulatory Reporting Manuals for Non-financial and financial information considered annually by the REC by 30 September and 31 March	Two reports on partnership creation to position NERSA as a recognised regulator nationally, regionally and internationally considered annually by the REC by 30 September and 31 March
Indicator Responsibility	SM (RAR)	EM (COS) and HOD (ICP)



5.5. ORGANISATIONAL

5.5.1. Programme 7: Administration (Establishing NERSA as an efficient and effective regulator)

Indicator title	Number of reports on the implementation of the Employment Equity Plan considered by the relevant committee or the Energy Regulator within the stated timeframe	% of women in management positions
Definition	This is the number of progress reports on the implementation of the Employment Equity Plan considered by the relevant subcommittee	Analysis of staff complement to determine percentage of women in management positions.
Source of data	Analysis of the implementation of the Employment Equity Plan	Staff statistical information
Method of calculation / assessment	Number of progress reports	(number of women in management positions / number of management positions) * 100
Means of verification	Submissions to HRRC; Minutes of HRRC	Submissions to HRRC; Minutes of HRRC
Assumptions	Analysis completed	Analysis completed
Calculation Type	Cumulative	Non-cumulative
Reporting cycle	Bi-Annually	Annually
Desired performance	Two reports on the implementation of the Employment Equity Plan considered annually by the HRRC by 30 September and 31 March	50% of women in management positions
Indicator Responsibility	CHCO and HOD (HR)	CHCO and HOD (HR)

Indicator title	% of people with disabilities employed	Number of progress reports on the implementation of the Youth Employment Accord considered by the relevant committee or the Energy Regulator within the stated timeframe
Definition	Analysis of staff complement to determine percentage of people with disabilities employed.	This is a report on that status of the percentage of people with disabilities employed
Source of data	Staff statistical information	Report on that status of the percentage of people with disabilities employed
Method of calculation / assessment	(number of people with disabilities employed / number of all positions) * 100	Number of progress reports
Means of verification	Submissions to HRRC; Minutes of HRRC	Submissions to HRRC; Minutes of HRRC
Assumptions	Analysis completed	Analysis completed

Indicator title	% of people with disabilities employed	Number of progress reports on the implementation of the Youth Employment Accord considered by the relevant committee or the Energy Regulator within the stated timeframe
Calculation Type	Non-cumulative	Cumulative
Reporting cycle	Annually	Quarterly
Desired performance	2% of people with disabilities employed	Four reports on the implementation of the Youth Employment Accord considered quarterly by the HRRC
Indicator Responsibility	CHCO and HOD (HR)	CHCO and HOD (HR)

Indicator title	Number of reports on the implementation of the bursary programme for qualifying external applicants considered by the relevant committee or the Energy Regulator within the stated timeframe	Number of reports on the design of a regulatory course at an accredited institution of higher learning considered by the relevant committee or the Energy Regulator within the stated timeframe
Definition	This is a report on monitoring the implementation of the bursary programme for qualifying external applicants	This is a report on monitoring the design of a regulatory course at an accredited institution of higher learning
Source of data	Approved bursary programme	Project plan and progress reports
Method of calculation / assessment	Number of progress reports	Number of progress reports
Means of verification	Submissions to HRRC; Minutes of HRRC	Submissions to HRRC; Minutes of HRRC
Assumptions	Analysis completed	Analysis completed
Calculation Type	Cumulative	Cumulative
Reporting cycle	Quarterly	Bi-annual
Desired performance	One report on the implementation of the bursary programme for qualifying external applicants considered annually by the HRRC by 31 March	Two reports on the design of a regulatory course at an accredited institution of higher learning considered by the HRRC annually by the HRRC by 30 September and 31 March
Indicator Responsibility	CHCO and HOD (HR)	CHCO and HOD (HR)



Indicator title	Number of reports on leadership development programme considered by the relevant committee or the Energy Regulator within the stated timeframe	Number of reports on the development of a technical regulatory training and development programme considered by the relevant committee or the Energy Regulator within the stated timeframe
Definition	This is a report on monitoring the implementation of the leadership development programme	This is a report on the progress made with the of a technical regulatory training and development programme
Source of data	Approved leadership development programme	Project plan and progress reports
Method of calculation / assessment	Number of reports	Number of reports
Means of verification	Submissions to HRRC; Minutes of HRRC	Submissions to HRRC; Minutes of HRRC
Assumptions	Collaboration of management	Collaboration of management
Calculation Type	Cumulative	Cumulative
Reporting cycle	By 31 March 2023	By 31 March 2021
Desired performance	One report on the leadership development programme considered by the HRRC by 31 March 2023	One report on the development of a technical regulatory training and development programme considered by the HRRC by 31 March 2021
Indicator Responsibility	CHCO and HOD (HR)	CHCO and HOD (HR)

Indicator title	Number of reports on the certification with an appropriate international standard on quality management, considered by the relevant committee or the Energy Regulator within the stated timeframe	Reviewed NERSA Enterprise Development Plan considered by the relevant committee or the Energy Regulator within the stated timeframe and new target group identified
Definition	This is the number of reports on the progress made regarding obtaining certification in respect of an appropriate international standard on quality management to ensure that NERSA has a defined quality management philosophy, which is institutionalised, and levels of excellence to be achieved are defined.	The NERSA Enterprise Development Plan is reviewed and a new target group identified
Source of data	Progress Reports	Project plan and progress reports
Method of calculation / assessment	Number of progress reports	Reviewed plan
Means of verification	Submissions to REC; Minutes of REC	Submissions to REC; Minutes of REC
Assumptions	Collaboration of management	Collaboration of management
Calculation Type	Cumulative	Non-cumulative

Indicator title	Number of reports on the certification with an appropriate international standard on quality management, considered by the relevant committee or the Energy Regulator within the stated timeframe	Reviewed NERSA Enterprise Development Plan considered by the relevant committee or the Energy Regulator within the stated timeframe and new target group identified
Reporting cycle	Quarterly	By 31 March 2021
Desired performance	Four reports on the progress made regarding certification with an appropriate international standard on quality management considered quarterly by the REC	Reviewed NERSA Enterprise Development Plan considered by the ER by 31 March 2021 and new target group identified
Indicator Responsibility	SM (SPM)	CFO and HOD (SCM)

Indicator title	% of implementation of Preferential Procurement Policy Framework, with ≥84% procurement over R30 000 awarded to suppliers with a B-BBEE status level of 4 or better	Number of reports on the implementation of the stakeholder management plan considered by the relevant committee or the Energy Regulator within the stated timeframe
Definition	The determination of spend on procurements from suppliers with a B-BBEE status level of 4 or better	This is a report on monitoring the of the stakeholder management plan
Source of data	Data base on all procurement and B-BBEE status level of all suppliers	Project plan and progress reports
Method of calculation / assessment	(number of suppliers with a B-BBEE status level of 4 or better with procurement value of more than R30 000 / number of all procurement above R30 000)*100	Number of progress reports
Means of verification	Submissions to REC; Minutes of REC	Submissions to REC; Minutes of REC
Assumptions	Analysis completed	Analysis completed
Calculation Type	Cumulative	Cumulative
Reporting cycle	Quarterly	Annual
Desired performance	100% of implementation of Preferential Procurement Policy Framework, with ≥84% procurement over R30 000 awarded to suppliers with a B-BBEE status level of 4 or better	One report on the implementation of the stakeholder management plan considered annually by the REC by 31 March
Indicator Responsibility	CFO and HOD (SCM)	EM: COS and HOD (CSM)



Indicator title	Unqualified audit	% of creditors paid within 30 days after all relevant documentation have been received
Definition	This is the outcome of NERSA's audit on an annual basis by the Auditor-General	In line with Government's direction, NERSA aims to pay all its creditors within 30 days of receipt of all relevant documentation
Source of data	Final Management Report from the AG	Payment transaction reports and invoices
Method of calculation / assessment	Unqualified audit – yes / no	(number of creditors paid within 30 days of receipt of all relevant documentation / total number of creditors)*100
Means of verification	Audit report	Analysis report
Assumptions	Collaboration of Management	Analysis completed
Calculation Type	Non-cumulative	Non-cumulative
Reporting cycle	Annually	Quarterly
Desired performance	Unqualified audit	100% of creditors paid within 30 days after all relevant documentation have been received
Indicator Responsibility	CFO and HOD (FAD)	CFO and HOD (FAD)

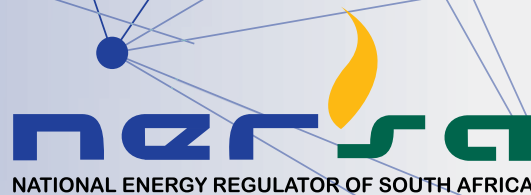
Indicator title	Number of reports on legislative and policy developments impacting on the Regulator, considered quarterly by the relevant committee or the Energy Regulator within the stated timeframe
Definition	This is the number of report on NERSA's engagements in regulatory and policy advocacy with its stakeholders considered by the relevant Subcommittee
Source of data	Progress Report and minutes of the relevant Subcommittee
Method of calculation / assessment	Number of progress reports
Means of verification	Submissions to REC; Minutes of REC
Assumptions	Analysis completed
Calculation Type	Cumulative
Reporting cycle	Quarterly
Desired performance	Four reports on legislative and policy developments impacting on the Regulator considered quarterly by the REC
Indicator Responsibility	EM (COS) and HOD (LAS)

ANNEXURE A

Amendments to the Strategic Plan

A new Strategic Plan was developed for the new electoral period. The format of the Strategic Plan for the period 2020/21 – 2024/25 is aligned with the requirements as prescribed in the Revised Framework for Strategic and Annual Performance Plans issued by the Department of Planning, Monitoring and Evaluation in June 2019.





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