

# NATIONAL NUCLEAR REGULATOR

For the protection of persons, property and the environment against nuclear damage

# FINAL ANNUAL PERFORMANCE PLAN

2022-2023



caring



excellence



integrity



openness & transparency



teamwork



safety & security

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#### **ABBREVIATIONS**

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CAP	Compliance Assurance Programme		
CEO	Chief Executive Officer		
CNSC	Canadian Nuclear Safety Commission		
CNSS	Centre for Nuclear Safety and Security		
CoCT	City of Cape Town		
COVID-19	Coronavirus Disease 2019		
CSS	Corporate Support Services		
DMRE	Department of Mineral Resources and Energy		
IAEA	International Atomic Energy Agency		
ICRP	International Commission on Radiological Protection		
ICT	Information and Communications Technology		
IRP	Integrated Resource Plan		
ISO/IEC	International Organization for Standardization and the International		
	al Commission		
KPI	Key Performance Indicator		
KNPS	Koeberg Nuclear Power Station		
LTO	Long Term Operation		
MOV	Means of Verification		
MTEF	Medium Term Expenditure Framework		
MTSF	Medium Term Strategic Framework		
NECSA	South African Nuclear Energy Corporation		
NGO	Non-Governmental Organisation		
NIL	Nuclear Installation Licence		
NDP	National Development Plan		
NNR	National Nuclear Regulator		
NORM	Naturally Occurring Radioactive Material		
NPP	Nuclear Power Plant		
NRC	Nuclear Regulatory Commission		
NRWDI	National Radioactive Waste Disposal Institute		
NTN	Nuclear Technology and NORM		
NVL	Nuclear Vessel Licence		
ONR	Office for Nuclear Regulation		
PoE	Portfolio of Evidence		
POPIA	Protection of Personal Information Act		
PPPFA	Preferential Procurement Policy Framework Act		
RADCON	Directorate Radiation Control		
RITS	Regulatory Improvement and Technical Services		
SAHPRA	South African Health Products Regulatory Authority		
SANAS	South African National Accreditation System		
SCM	Supply Chain Management		
SDBIP	Service Delivery and Budget Implementation Plan		
SGR	Steam Generator Replacement		
SMR	Small Modular Reactor		
TSO	Technical Assessment Guide		
UK	United Kingdom		
UNSCEAR	United Nations Scientific Committee on the Effects of Atomic Radiation		
USA	United States of America		

#### <sup>1</sup> EXECUTIVE AUTHORITY STATEMENT

The National Nuclear Regulator (NNR) is a regulatory body established in terms of section 3 of the National Nuclear Regulator Act (Act No. 47 of 1999). During the 2021/2022 planning cycle, the NNR strived performing its industry requirements diligently amidst the unprecedented worldwide pandemic.

Inward looking, the continued impact of Covid-19 did not deter the Regulator from achieving its set goals and targets, amongst others, the much-anticipated Thyspunt Nuclear Installation Site License (NISL) public hearings took place during the month of August 2021.

These public hearings were successfully conducted on the 25<sup>th</sup> and 26<sup>th</sup> August 2021, this was a huge milestone for the Regulator as the two sessions took place under the strict Disaster Management Act of 2002 and the outcomes and participation shown by stakeholders were never predictable.

During the planning period, the Koeberg replacement of the steam generator preparatory work for installation was performed, the process of replacing the steam generator remains of key interest for the Regulator even though previous key milestones were hampered by the 2020/21 nationwide lockdown.

Outward looking, the pending decision for the approval of a plan to procure 2 500MW by the Minister of Minerals and Energy, Honourable Gwede Mantashe of August 2020 remains of interest to the NNR, however, the resistance by civil society compels the Regulator to have further external stakeholder engagements to make the public more aware of the vital role of the nuclear power in the country's clean energy technology in the energy mix.

In light of the global trend in nuclear energy, our planning for 2022/2023 continues with keen interest in discussions around the use of Small Modular Reactors (SMRs). We deemed it crucial for the NNR to determine its readiness to regulate SMRs; as a result, the 2020/21 benchmarking report will serve as a key input in guiding the Regulator's practices and position in the regulation of SMRs.

The NNR Board of Directors and the Management would like to take this opportunity to express their gratitude to the Minister of Mineral Resources and Energy and the Department for their continued support for the Regulator's plans and operations.

The NNR remains committed to its mandate to protect persons, property, and the environment against the harmful effects of radiation.

The NNR's Annual Performance Plan (APP) for the 2022/2023 financial year is hereby presented.

Dr Thapelo Motshudi

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Chairperson of the Board, National Nuclear Regulator

<sup>&</sup>lt;sup>1</sup> As per section 49 (2) (a) of the Public Finance Management Act Section 49 (2) (a), – The NNR Board is the accounting authority of the NNR

#### ACCOUNTING OFFICER STATEMENT

The National Nuclear Regulator (NNR) is a regulatory body established in terms of section 3 of the National Nuclear Regulator Act (Act No. 47 of 1999). The 2022/23 planning cycle continue taking place during the unprecedented COVID-19 pandemic. The pandemic has had a serious negative impact on livelihoods, societies in general as well as businesses continental and globally.

Our 2021/22 plans involved a thorough, critical, and robust analysis on our environmental scan landscape, our developed situational analysis guided by our Board of Directors propelled both the executive management and the commitment of our staff in ensuring and establishing causality and proper mapping out of our plans into actionable and measurable outputs. The use of scenarios brought forth a new perspective on our strategic landscape and remains a necessary tool to envision multiple possible alternative future guidance in our regulatory space.

Furthermore, the pandemic also brought forth opportunities and threats to our environment; the NNR had to make a shift in our working space by introducing the work from home as a measure to protect our staff from being affected and infected with the virus, this was done in line with one of our key value "Caring", and the organisation was able to achieve 98% of its planned targets exceeding its set target of 85%.

However, issues of Cyber security continue being ranked as one of the biggest global threats, and as the Regulator, we continue monitoring and introducing new change management approaches in a form of awareness programme to our staff as a mitigating strategy.

Therefore, the Regulator is looking forward to the outcomes and way forward of the 2021/22 benchmarking report on the regulation of SMRs, the SANAS accreditation as well as the strengthening and enhancement of our stakeholder engagements and the enhancement of our ICT capabilities to enhance business support.

As always, we look ahead in anticipation of implementing our planned outcomes invariably aligned to the priorities of government as contained in the National Development Plan (NDP).

Dr. Mzubanzi Bismark Tyobeka Chief Executive Officer (CEO), National Nuclear Regulator

#### **OFFICIAL SIGN-OFF**

It is hereby certified that this Annual Performance Plan:

- Was developed by the Board of Directors and Management of the National Nuclear Regulator and;
- Takes into account all relevant policies, legislation and other mandates for which the National Nuclear Regulator is responsible, and
- It accurately reflects the impact and outcomes which the NNR will endeavour to achieve over the period 2022-2023.

Ms. Nontsikelelo Kote
Manager: Strategy, and Organisational Performance
Date:
Mr. Dakalo Netshivhazwaulu
Chief Financial Officer
Date:
Dr. Mzubanzi Bismark Tyobeka
Chief Executive Officer
Date:
Approved by:
Dr. Thapelo Motshudi
Chairperson of the Board
Date:

#### **PART A - OUR MANDATE**

#### APPLICABILITY OF THE REVISED FRAMEWORK

As a Schedule 3A public entity, the NNR is subject to government guidelines and stipulations insofar as strategic and financial planning is concerned. This is important for two reasons.

Using the Revised Framework assists the NNR's Annual Performance Plan to demonstrate alignment to the overall energy policy and the Department of Mineral Resources and Energy's (DMRE) strategy in both format and content.

Secondly, the extent to which the guidelines have been applied is an auditable criterion by the Auditor-General of South Africa (AGSA) and thus the NNR must demonstrate adherence.

The NNR's Annual Performance Plan is determined by the manifesto and term of office of the ruling party, and will be developed as guided by the framework (see Figure 1).

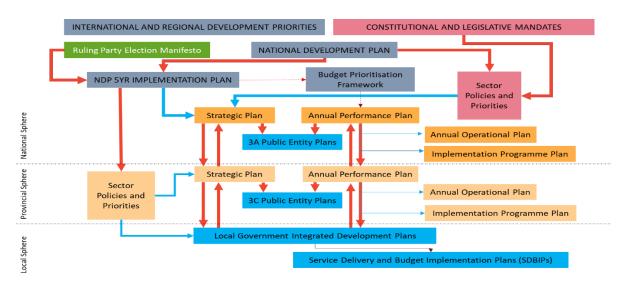


Figure 1: Overview guideline of the Framework

The revised framework applies to:

- All national departments, provincial departments and government components listed in Schedule 1, Schedule 2 and Schedule 3 of the Public Service Act (1994), as amended by the Public Service Amendment Act (Act No. 30 of 2007); and
- Constitutional institutions listed in Schedule 1 and public entities listed in Parts A and C of Schedule 3 of the Public Finance Management Act (Act No. 1 of 1999).

#### 1. CONSTITUTIONAL MANDATE

The NNR is a public entity that is established and governed in terms of section 3 of the National Nuclear Regulator Act (Act No. 47 of 1999).

The fundamental objective of the NNR is to provide for the protection of persons, property and the environment against nuclear damage through the establishment of safety standards and regulatory practices. To this end, the NNR provides oversight and assurance that activities related to the peaceful use of nuclear energy in South Africa are carried out in a safe manner and in accordance with international principles and best practices.

The NNR derives its mandate from the Constitution of the Republic of South Africa in that it is vested with the legal obligation to protect the environment against nuclear damage. Hence the strategy adopted by the NNR seeks to be congruent with the provisions of section 24 of the Constitution, specifically chapter 2, the Bill of Rights which reads as follows:

Everyone has the right -

- (a) to an environment that is not harmful to their health or well-being; and
- (b) to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that
  - (i) prevent pollution and ecological degradation;
  - (ii) promote conservation
  - (iii) secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.

#### 1.1. LEGISLATIVE AND POLICY MANDATE

The NNR's mandate is derived from section 3 of the National Nuclear Regulator Act (Act No. 47 of 1999). The Act gives effect to the objects of the Regulator as stipulated in section 5.

The NNR also contributes to DMRE programme 6: Nuclear. These programmes include the following:

- Nuclear safety and technology;
- Nuclear non-proliferation and radiation security; and
- Nuclear policy.

The following are some of the legislations that the NNR must comply with:

Legislation	Legislation
Basic Conditions of Employment Act, No. 75 of 1997	Promotion of Administrative Justice Act, No. 3 of 2000
Broad Based Black Economic Empowerment Act, No. 53 of 2003	Protected Disclosures Act, No.26 of 2000
Compensation for Occupational Injuries and Diseases Act, No. 130 of 1993	Protection of Equality and Prevention of Unfair Discrimination Act, No. 4 of 2000
Constitution of the Republic of South Africa, 1996	Protection of Information Act, No.84 of 1982
Electronic Communications and Transactions Act, No. 25 of 2002	Protection of Personal Information Act, No. 4 of 2013
Employment Equity Act, No. 55 of 1998	Promotion of Access to Information Act, No. 2 of 2000
Government Immovable Assets Act, No.19 of 2007	Public Finance Management Act, No. 1 of 1999
Income Tax Act, No. 58 of 1962	Regulation of Interception of Communications and Provision of Communications and Provision of Communication-related information Act, No. 70 of 2002
Intergovernmental Relations Framework Act, No.13 of 2005	Skills Development Act, No.97 of 1998
Labour Relations Act, No. 66 of 1995	Skills Development Levies Act, No.9 of 1999
National Archives and Record Service of South Africa Act, No. 43 of 1996	Tobacco Products Control Act, No. 83 of 1993
National Environmental Management - Waste Act, No.59 of 2008	Unemployment Insurance Act, No. 63 of 2001
Occupational Health and Safety Act, No. 85 of 1993	Unemployment Insurance Contributions Act, No.4 of 2002
Pension Funds Act, No. 24 of 1956	Unemployment Insurance Act, No. 63 of 2001
Preferential Procurement Policy Framework Act, No. 5 of 2000	Use of Official Languages Act, No. 2 of 2012

Table 1: Overview of relevant legislation regulating the NNR

#### 2. INSTITUTIONAL POLICIES AND STRATEGIES 2

As outlined in the Revised Framework for Strategic Plan and Annual Performance Plans, government institutions are accountable to the citizens, through Parliament, for delivering on national development priorities. Therefore, the NNR's planning documents are aligned with that of government.

Furthermore, the framework stipulates that all national, provincial and local government institutions must ensure that the National Development Plan (NDP) priorities are reflected in their institutional Strategic Plans and Annual Performance Plans, as described in the Medium-term Strategic Framework (MTSF) for the relevant planning cycle.

These priorities, though enduring, are refined on an annual basis based on key governmental priorities as highlighted in the annual State of the Nation Address (SONA). Therefore, In July 2019, government adopted seven priorities to take South Africa forward amongst others, the NNR adopted the theme: Social Cohesion and Safe Communities this priority is achieved through the Regulator's mandate by providing for the protection of persons, property and the environment against nuclear damage.

The Regulator, through its developed plans endeavors to achieve and sustain the adopted priority in relation to women, youth and people with disabilities. To achieve this, the NNR will continue working and engaging with all its stakeholders (internal and external), and had to develop output indicators that are intended to address and empower individuals from designated groups as per procurement spend on designated groups in terms of the (PPPFA).

The below outlines the link between planned performance descriptions and its contribution in line with the NDP, MTSF as well as DMRE priorities.

# Link to NDP

# Chapter 12: Building safer communities

- Safety and security also link to infrastructure and access to sustainable livelihoods.
- Building safer communities is a holistic activity and involves many stakeholders.

#### Link to MTSF

# Priority 6: Social Cohesion and safe communities.

- Safety and security are directly related to socio-economic • development and equality.
- A safe and secure country encourages economic growth and transformation and is therefore an important contributor to addressing the triple challenge of poverty, inequality and unemployment.

#### Link to DMRE Priorities/Outcomes

- Improve security of supply for nuclear energy.
- Strengthen the control of nuclear material and equipment.
- Strengthen physical protective measures for nuclear material and facilities.
- Improve security of supply for nuclear energy.

All these are achieved through the mandate of the NNR.

<sup>&</sup>lt;sup>2</sup> All planned outputs are linked with institutional policies and strategies to ensure achievement towards our intended mandate, impact, and outcomes.

#### 3. RELEVANT COURT RULINGS

No new court rulings were identified in the current planning cycle. The MacDonald case regarding the development in zoned areas in 2011 remains the most recent ruling relevant to the NNR.

#### **PART B: OUR STRATEGIC FOCUS**

#### 1. UPDATED SITUATIONAL ANALYSIS

A situational analysis provides a broad overview of an organisation's external and internal perspective and allows the organisation to define its key drivers for the current strategy. For this planning cycle, the problem tree analysis was applied.

This planning tool allows the organisation to analyse its issues using the analogy of a tree where the top of the tree symbolises the visible effects, the trunk of the tree symbolises the issues that the organisation is currently facing, and the roots of the tree symbolise (often hidden) root causes that bring about the effects or impacts.

This analysis allows the organisation to establish causality and to carefully map out its plans with an understanding of cause and effect (see Figures 2, 3, 4 and 5). The possible solutions are addressed as part of our outcomes, outputs, performance indicators and targets.

**External Challenges** 

#### Poor economic conditions leading to Rapid advancement in technology austerity measures that impact on staff and heightened demand for it Effects salaries thereby leading to inability to requires capacitation of ICT. retain key expertise Loss of public trust on the Lack of inadequate tool to NNR regulate Issues/Focal Problems 1. National Treasury and DMRE's lack of support on NNR requests e.g. authorisation fees quantum greatly reduced. 2. Decline in macro level monetary and fiscal performance . Issues 3. Business closures and job losses have a negative impact on the retention of staff, employees, expertise at some of the authorisation holders. 4. Revenue reduction due to reduced scope of operations in the NORM sector. 5. Austerity measures by government lead to lack of support on our processes/projects. Causes 6. Reputational damage to the NNR due to ineffective multi-The continuing covid-19 stakeholder strategy to address legacy sites. Lack of participation and Civil society communication hasn't pandemic causing cooperation from interbeen effective since the Covid-19 7. Relevant and practical strategic plan based on a proper disruption to established governmental stakeholders. pandemic, only PISF has been effective. understanding of the business environment – are we financially processes sustainable? Future financial security of the NNR is not guaranteed

Figure 2: External Analysis Problem Tree

# Solution to External Challenges Prepare a number of scenarios for financial Relevant community interventions, sustainability of the NNR proactive communication with media Possibilities Public engagement, decision makers engagement Ensure relevant and innovative Adequate funding for execution responsiveness to industry of NNR's mandate matters

Figure 3: External Analysis Possible Solutions

#### Opportunities

- Public engagement, decision makers engagement, relevant community interventions , proactive communication with media.
- Prepare a number of scenarios for financial sustainability of the NNR
- The Regulator must develop a responsive measure to ensure growth and relevance in the industry in order to remain relevant in the game amidst the current economic landscape i.e. surrenders and decline.

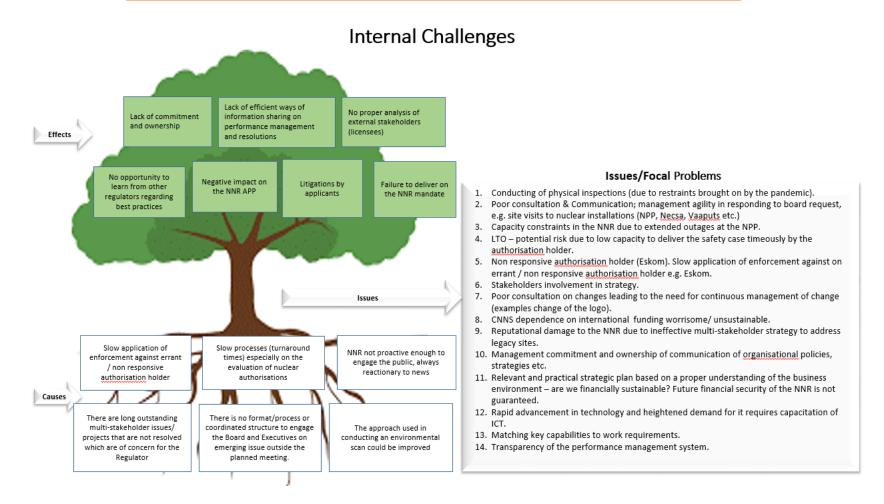


Figure 4: Internal Analysis Problem Tree

## Solution to Internal Challenges

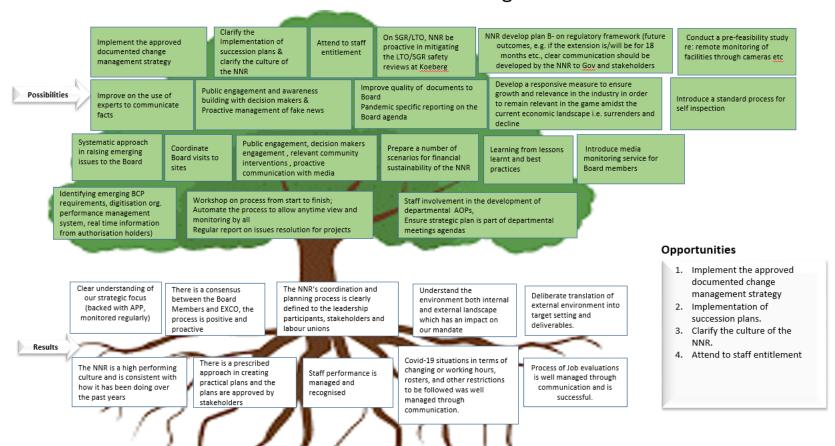


Figure 5: Internal Analysis Possible Solution

#### 2. SCENARIO PLANNING

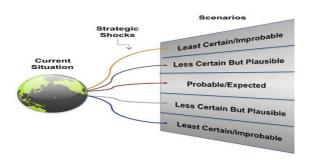


Figure 6a: Scenario planning 101

#### 2.1. Building scenarios

Scenario planning is a strategic planning method that affords an organisation the opportunity to envision multiple alternative future scenarios and to plan accordingly. The NNR plotted four scenarios based on two opposing factors, namely good economic performance versus poor economic performance.

These factors were combined with two possible futures: The first being maintained current capacity of nuclear energy, and the second being the implementation of the approved Integrated Resource Plan (IRP). The resultant scenarios are captured in Figure 6 below.

#### 2.2 Four scenarios

- **Equilibrium:** Good economic performance and maintained current capacity of nuclear energy.
- Myriad of challenges Poor economic performance and maintained current capacity of nuclear energy.
- Leap of Faith: Poor economic performance and approved IRP implementation.
- Full Steam Ahead Safely: Good economic performance and approved IRP implementation.

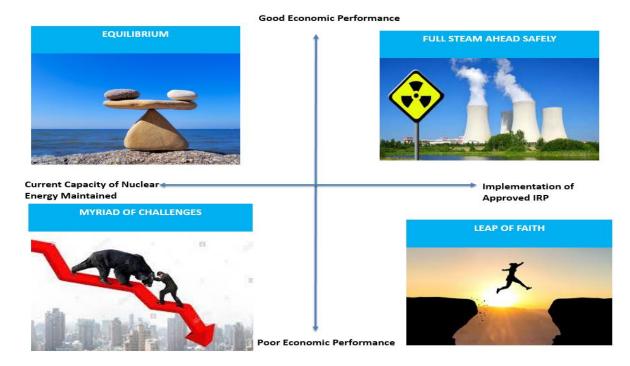


Figure 6b: Overview of scenarios for the NNR (2021-2025)

#### 2.2.1. Scenarios explained

#### Equilibrium scenario

Equilibrium is a scenario based on good economic performance and maintained current capacity (operations) of nuclear energy (1 800 MWe, SAFARI-1). Table 2 provides a breakdown of the equilibrium scenario.

Maintained co-operation with other regulators (regional, continental and international)      Industry has capital to maintain current operations     Restructuring of Eskom, i.e., possible relicensing of a different corporate operator     Investment in Naturally Occurring Radioactive Material (NORM) operations      Improved engagement with stakeholders     Regional economic spin-offs leading to social stability      Improved nuclear safety and security     Licensing of the National Radioactive Waste Disposal Institute (NRWDI) continues     More research, training and development (capacity building and generation of intellectual property)
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More research, training and development (capacity building and generation of intellectual property)
intellectual property)
Technological intellectual property)
and regulatory  • Industry investing in new technology
Attraction and retention of skills
<ul> <li>NNR imposes financial provisions for decommissioning and rehabilitation</li> </ul>
Operators have funds to implement compliance assurance programmes
Increasing number of applications for Certificates of Registration and increasing
production of NORM waste
Government response to nuclear safety-related approvals and amendments to
<b>Legislative</b> legislation
Growth of NNR scope (take over relevant Hazardous Substances Act responsibilities)

Table 2: Equilibrium scenario

### **Myriad of Challenges**

Myriad of challenges is a scenario based on poor economic performance and maintained current capacity (operations) of nuclear energy (1 800 MWe, SAFARI-1). Table 3 provides a breakdown of the Myriad of Challenges scenario.

	Political interference
Political	International interference
Tontical	<ul> <li>International Monetary Fund and World Bank loans (threats to</li> </ul>
	sovereignty)
	No investment in nuclear new build
	<ul> <li>Financial woes (safety compromises)</li> </ul>
Economic	<ul> <li>Energy supply not secured due to failure of independent power</li> </ul>
	producers to materialise (subdued economic activity)
	<ul> <li>Financial unsustainability of authorisation holders</li> </ul>
	Social unrest, increase in poverty and crime (illegal mining and
	theft of nuclear material)
Social	Increased activism
	Socioeconomic inequality
	<ul> <li>Loss of skills to other countries that have nuclear programmes</li> </ul>
Technological and	Increased automation of regulatory processes
regulatory	<ul> <li>Inability to comply with international obligations</li> </ul>
regulatory	<ul> <li>Increased independent electricity generation</li> </ul>
Environmental	Coal is king
Liivii OiliiliGillai	Dirty energy and pollution
Legislative	_

Table 3: Myriad of challenges scenario

# Leap of Faith scenario

The leap of faith scenario is based on poor economic performance and implementation of the approved IRP. Table 4 provides a breakdown of the leap of faith scenario.

Political	Change in administration could lead to no nuclear investment, i.e.		
1 Ontion	nuclear energy remains constant or is scaled down in the new IRP		
	New nuclear build slows down, e.g. from 2 500 MW to 500 MW		
	NNR plans to regulate new nuclear build and planned allocation of staff		
	to new build (IRP adjustment)		
	Initial growth in green energy (independent power producers) funded by		
	international investors. Reduction over time (five years) in green energy		
	investment (if the country is not offering returns to international		
	investors).		
Economic	As nuclear energy remains constant, regulation of the existing		
LCOHOIIIC	authorisation holders continues with the following features:		
	<ul> <li>Poor performing economy due to budget cuts (reduction in grant</li> </ul>		
	allocated to the NNR by the DMRE)		
	<ul> <li>Mines shut down (impact on the NNR's scope of work)</li> </ul>		
	<ul> <li>Staff reduction in some areas</li> </ul>		
	<ul> <li>Non-compliance with licence conditions as authorisation holders</li> </ul>		
	take shortcuts and compromise on safety		
	<ul> <li>Increased corruption in both internal and external environments</li> </ul>		
Social	Social unrest, shutdown of facilities (NNR access to facilities for		
Social	regulation purposes negatively affected)		
	Introduction of SMRs limited when the economy is not performing.		
Technological and	However, NNR needs to train staff on the new technology, which may		
regulatory	require international training (negative impact on the NNR's budget).		
	<ul> <li>New regulations for SMRs need to be developed</li> </ul>		
	Waste generation at the mines increases waste management		
Environmental	requirements in the long run, i.e. increased capacity, storage. Need for		
	additional capacity from NNR to regulate these new developments.		
	New legislation/regulations, litigation by the environmental civil society		
Legislative	groups (NNR may require additional budget to deal with court cases to		
	defend regulatory decisions)		
	Table 4.1 and of Faith connects		

Table 4: Leap of Faith scenario

### Full Steam Ahead - Safely scenario

In the full steam ahead scenario we see good economic performance and full implementation of the approved IRP. Table 5 provides a breakdown of the full steam ahead scenario.

Political	<ul> <li>Increased intergovernmental co-operation for mandates that overlap</li> </ul>
Economic	Prioritisation of other energy mix over nuclear
• Increased awareness of nuclear/safety • Dispelling myths	
Technological and regulatory	<ul> <li>Enabling environment for capacity building of regulatory staff</li> <li>Increased green energy into the mix, necessitating localisation of technologies;</li> <li>Possible introduction of small modular reactors</li> <li>More nuclear/radiation science and technology applications</li> <li>Increased capacity i.e. human, financial, security (physical/cyber) due to increased entities to be regulated</li> <li>Regulatory research and development will grow based on existing operating experience, and advise other countries in the region</li> </ul>
Environmental	<ul> <li>Remediation/rehabilitation of nuclear facilities in the event that policies change, i.e. Nuclear Power Plant (NPP) closure</li> <li>Decommissioning safety prioritised in mines and nuclear installations</li> </ul>
Legislative	_

Table 5: Full Steam Ahead scenario

This plan is based on the leap of faith scenario since it is the most likely scenario in the medium term.

Therefore, the outcomes expressed by the Regulator have assumed an environment in which the economy continues to struggle, but the move towards implementing the IRP gains momentum.

#### 3. STAKEHOLDER ENGAGEMENT

The NNR held a stakeholder engagement session during the current planning cycle. The aim of the session was to hear from authorisation holders what the Regulator should anticipate in the medium- to long-term in the regulated activities.

Table 7 below provides a summary of the stakeholders, their key characteristics, their impact and influence on the NNR, as well as how the Regulator should respond.

Stakeholder	Key Characteristics	Impact on the NNR	Influence on the NNR	NNR Response/Strategy
Department of Mineral Resources and Energy	<ul> <li>Individuals who have high a level of knowledge and involvement in the nuclear regulatory industry</li> <li>They are the decision makers and opinion leaders</li> <li>The Minister of Mineral Resources and Energy appoints Board members</li> <li>Individuals with a high level of knowledge and involvement in the mines the NNR works with as well as the nuclear regulatory industry</li> </ul>	<ul> <li>Key strategic stakeholder</li> <li>If formal working relationships are not maintained, it will lead towards asymmetry of information</li> <li>The NNR is dependent on its co-operation and goodwill</li> </ul>	Has the ability to influence the NNR's independence	<ul> <li>Continuous engagement and involvement in ensuring nuclear safety</li> <li>Engagement regarding legacy sites</li> <li>Strengthen stakeholder relationship</li> <li>Continue having regular interactions, forums and meetings</li> </ul>
Sibanye-Stillwater, Harmony Gold and other relevant mining houses	Provide value creation for all stakeholders through responsible mining and beneficiation of mineral resources	<ul> <li>Key strategic stakeholders</li> <li>Focus on employee safety and health in the mining sector</li> </ul>	The NNR is in a better position to provide for the protection persons, property and the environment.	Continuous engagement and involvement

Stakeholder	Key Characteristics	Impact on the NNR	Influence on the NNR	NNR Response/Strategy
Necsa	<ul> <li>Provides value creation through the nuclear research reactor and production of nuclear products</li> <li>Focus on people, safety and sustainability</li> </ul>	<ul> <li>Key strategic partner</li> <li>Government policy changes related to nuclear may impact on Necsa's future operations</li> <li>Strives for enhanced safety culture</li> </ul>	The NNR is in a better position to provide for the protection of persons, property and the environment  The NNR is in a better position and the protection of persons, property and the environment.	Continue having regular interactions and strengthen co-operation
NRWDI	<ul> <li>Provides management and disposal of radioactive waste</li> <li>Ensures the protection of persons, property and environment</li> </ul>	<ul> <li>Institutionalise a culture of nuclear safety and security</li> <li>Vaalputs Nuclear Installation Licence (NIL)</li> </ul>	Provides the NNR with the ability to provide for the protection of persons, property and the environment	Continue having regular interactions and strengthen co-operation
Eskom	<ul> <li>Knowledgeable experts in nuclear power station operation</li> <li>Subject matter experts</li> </ul>	<ul> <li>Eskom will take future direction on new build from the IRP</li> <li>The Nuclear Energy Policy of 2008 designates Eskom as the majority owner and operator of NPPs in South Africa</li> </ul>	<ul> <li>Provides the NNR with the aim of ensuring the regulatory framework is enhanced for a new build programme</li> <li>Commitment is needed to regulate Long-term Operation</li> </ul>	More engagement and collaboration, particularly on the safe operation of the Koeberg Nuclear Power Station (KNPS)

Table 6: NNR stakeholder engagement

#### 3.1. STAKEHOLDER MAP

The strategy is more useful and effective when aligned with stakeholder needs. For that reason, the NNR has engaged in a stakeholder mapping exercise to define the types of linkages that the organisation has with various stakeholder groupings as per Figure 7 below.

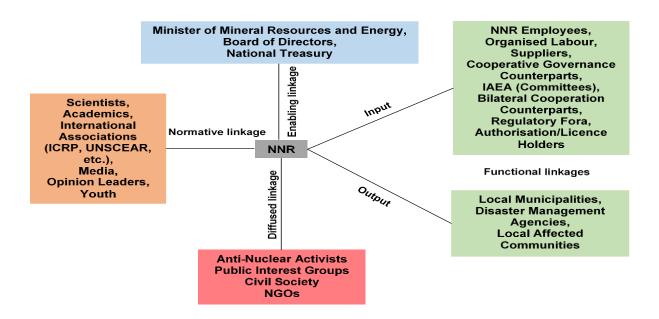


Figure 7: NNR stakeholder map

**Enabling linkages** are stakeholders who have some control and authority over the organisation and could include the Board of Directors, legislators and regulators, amongst others. The NNR is reliant on these stakeholders for decision-making, guidance and the directives necessary for its operation.

**Normative linkages** are those groups with whom the organisation shares a common interest, and shares similar values, goals or problems. There is sharing and exchange of information, knowledge, practices, etc.

**Diffused linkages** are those stakeholders who become involved based on specific actions. They could include the community, activists and special interest groups. These interested parties may share a similar goal with the Regulator, such as safety, but may have different views regarding processes. The Regulator needs to share information with this group in line with the key driver of communicating regulatory processes and decisions.

**Functional linkages** are essential for the functioning of the organisation. Some stakeholders are involved in the input of the organisation, while others form part of the output of the organisation. Stakeholders that provide inputs to the Regulator include internal stakeholders, such as employees, as well as partners and suppliers. The stakeholders such as consumers and retailers provide various outputs for review, assessment and inspection by the Regulator. These stakeholders expect approval, guidance and regulations.

#### 3.1.1. NNR STRUCTURE

The NNR structure defines the major categorisation of roles in the organisation. The NNR is led by a Board of Directors in line with the prescripts of the NNR Act. The Board is appointed by the Minister of Mineral Resources and Energy, and is assisted and advised by three sub-committees, namely, the Transformation and Development Committee, the Audit and Risk Management Committee and the Technical Committee.

The Chief Executive Officer (CEO) is appointed by the Minister of Mineral Resources and Energy in line with the NNR Act. The CEO, in consultation with the Board, appoints the Executives. Currently, the NNR has five Executives from the following divisions: Finance, Nuclear Power Plant, (NPP), Nuclear Technology and NORM (NTN), Regulatory Improvement and Technical Services (RITS), and Corporate Support Services (CSS), which includes communications and stakeholder relations.

The strategic units are placed under the ambit of the CEO and/or the Board. The Internal Audit services the Board and reports to the Chairman of the Audit and Risk Management Committee (functionally) and the CEO (administratively). The Board Secretariat services the Board and reports to the Chairman of the Board, Legal Services, Risk Management, Compliance and Governance as well as Strategy, and Organisational Performance. Collectively, these units are referred to as the Office of the CEO.

The NNR staff complement is 175, this includes interns, temporary workers and inspectors in training. The approved structure of the NNR is depicted in Figure 8.

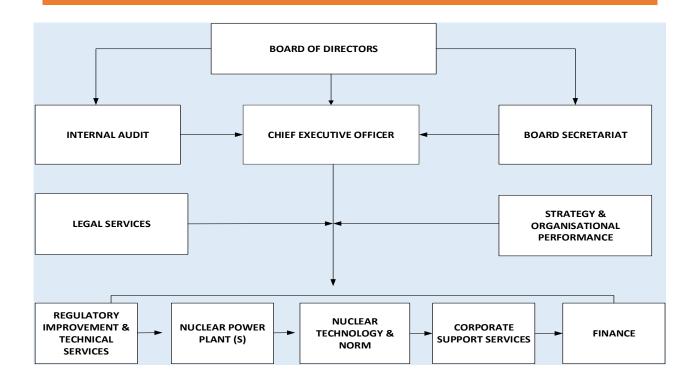


Figure 8: NNR structure

#### PART C: MEASURING OUR PERFORMANCE

#### 1. OVERVIEW OF THE NNR'S FUNCTIONS

A broad overview of the NNR's function is listed in table 8.

Functions Board of Directors	Purpose  The Board sets the direction and governs the Regulator in accordance with the NNR Act.
	With the NNR Act.
	The Board develops the strategic plan and oversees the organisation's performance with regards to the stated strategic objectives. It also oversees the risk-based Internal Audit.
Office of the CEO	As the face of the organisation, the Office of the CEO has overall
	responsibility for the organisation. The functions in this office include:
	<ul> <li>Legal services, enterprise risk management and governance.</li> </ul>
	Strategy, and organisational performance, which is responsible
	for the implementation of the organisation's strategic plan and annual performance plan and oversees the performance of
	operations, including the development of organisational
	performance reporting, monitoring of strategic projects and
	maintaining order through governance; and
	<ul> <li>Internal Audit, which is responsible for conducting risk-based internal audits in all divisions/departments of the NNR.</li> </ul>
Financial	This programme provides organisational support in the area of financial
Management	management and administration. This is achieved through the following key functional streams:
	Financial planning and management;
	Financial reporting;     Asset management and supply shair management.
	<ul> <li>Asset management and supply chain management (procurement);</li> </ul>
	Accounts payable; and
	<ul> <li>Accounts receivable and cash book management, and payroll management.</li> </ul>
Regulation of	NPP focusses on a holistic approach towards regulating safety and
Nuclear Power Plant (NPP)	security for nuclear power plant technology. In terms of its core functions it delivers the following:
,	Compliance assurance and enforcement activities; and
	Reviews and assessments and general oversight of the KNPS
	licence.  • Additionally, the programme focusses on issuing of
	authorisations for Nuclear Vessel Licences (NVL), licence
	change requests, and management of NPP projects throughout the facility's life cycle.
	the facility's life cycle.
Regulation of	NTN comprises two sub-programmes that focus on the following:
	<ul> <li>The regulation of nuclear technology and waste projects, including various nuclear and radiation facilities on the Necsa</li> </ul>

Functions	Purpose
Nuclear Technology and NORM (NTN)	Pelindaba site and the Vaalputs National Radioactive Waste Disposal Facility.  • The regulation of facilities and activities involving NORM and public radiation exposure from previously contaminated NORM sites as well as radon.  • Provides a holistic approach towards regulating nuclear and radiation safety as well as nuclear and radiation security. The programme focusses on the issuing of nuclear authorisations, including Nuclear Installation Licences (NIL), Nuclear Vessel Licences (NVL), Certificates of Registration (CoR) and Certificates of Exemption (CoE) and amendments thereto, as well as conducting reviews and assessments related to the safety of these facilities and activities; and  • It delivers compliance assurance and enforcement activities, which include conducting inspections, investigations, surveillances and environmental monitoring and sampling related to nuclear technology facilities and activities, radioactive waste management and all identified NORM facilities.
Regulatory Improvement and Technical Services (RITS)	RITS provides cross-cutting nuclear safety services to all NNR technical departments. In terms of its core functions, RITS performs the following:  • In-depth nuclear safety reviews and assessments for all regulated facilities.  • Independent verification by computer codes.  • Emergency preparedness and response services.  • Laboratory services.  • Development of regulatory standards and nuclear projects; and • Coordination of nuclear security, and safety and security culture functions.  • A key component of this programme is the regulatory research and development which is conducted on emerging issues regarding nuclear and radiation safety housed under the Centre for Nuclear Safety and Security (CNSS).
Corporate Support Services	This programme provides strategic organisational support through the key functions of:  • Human resource management; • Knowledge and information management; • Integrated management systems; • Facilities and security management; • Information and communications technology (ICT); • Occupational health and safety; and • Communication and stakeholder relations management.

Table 7: Overview of the NNRs functions

The Department of Planning, Monitoring and Evaluation revised its Framework for Strategic Plans and Annual Performance Plans.

The below results-based approach illustrated in Figure 9 shows the link between the various performance information concepts and stages. It is used with other planning tools to ensure that all factors contributing to the achievement of the intended results are taken into consideration.



Source: Framework for Managing Programme Performance Information (2007)

Figure 7: Results-based concepts

The Framework should be implemented by both the national and provincial spheres of government and stipulates that institutions should provide an impact statement to which they contribute, as informed by legislative or policy mandate.

Therefore, the NNR exists to monitor and enforce regulatory safety standards for the achievement of safe operating conditions, prevention of nuclear accidents or mitigation of nuclear accident consequences, resulting in the protection of persons, property and the environment against the potential harmful effects of ionising radiation or radioactive material.

The overall impact statement of the NNR towards its key planned activities in the long- to medium-term is supported by its vision and mission statement and will contribute to Priority 6: Social Cohesion and Safer Communities. The impact statement of the NNR is as follows:

Impact Statement	A South Africa that is safe from nuclear and radiation damage and
	ensured safety towards persons, property, and the environment.

#### 2. NNR STRATEGY MAP 2022-23

The strategy map is based on the four perspectives of a balanced scorecard, and depicts 12 outcomes and 13 output indicators. The map places some key regulatory projects in perspective.

The map correctly depicts that the bulk of the NNR's programmes are on the regulatory perspective (see Figure 10).

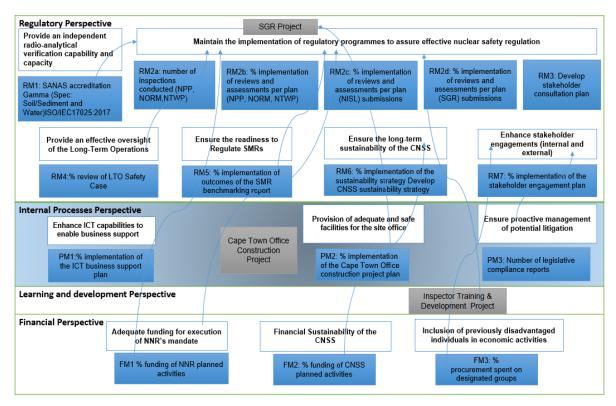


Figure 10: Strategy Map 2020-23

# 3. INSTITUTIONAL PERFORMANCE INFORMATION

#### **Programme 1: Administration.**

**Purpose:** The programme compromises of the following sub-programmes: Legal Services, Enterprise Risk Management and the maintenance of order through Governance, the Internal Audit department, which is responsible for conducting risk-based internal audits in all divisions/departments of the NNR as well as the Strategy, and Organisational Performance, which is responsible for coordinating and monitoring the implementation of the organisation's Strategic Plan and Annual Performance Plan and oversees the performance of operations, including the development of organisational performance reporting, monitoring of strategic projects.

#### Sub-programme 1: Legal, Risk and Compliance<sup>3</sup>

**Purpose**: The purpose of this sub-programme is to provide legal services, compliance and enterprise risk management and governance services to the organisation.

#### 1.1. Output Indicators, Annual and Quarterly Targets

			Annual Targets							
			udited /Actual Performance Es			Estimated Performance	MTEF Period			
Outcome	Outputs	Output Indicators	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	
Ensure proactive management of potential litigation	Quarterly Legislative Compliance Report	PM3: Level of legislative compliance		N/A		•	compliance	compliance to	100% compliance to legislation	

#### 1.1.1 Output Indicators: Annual and Quarterly Targets

Output Indicator	Annual Target	Q1	Q2	Q3	Q4
PM3: Level of legislative compliance	100% compliance to legislation	<ul> <li>Review and update NNR regulatory universe.</li> <li>Review checklist of sections relevant to the NNR.</li> <li>Identify/confirm relevant Act Owners and Workflow users.</li> <li>Monitor compliance controls to ensure that they are adequate and effective.</li> </ul>	l .	<ul> <li>Monitor compliance controls to ensure that they are adequate and effective.</li> <li>Identify and track noncompliant issues to resolution.</li> <li>Monitor implementation of corrective measures</li> </ul>	<ul> <li>Monitor compliance controls to ensure that they are adequate and effective.</li> <li>Monitor implementation of corrective measures to address non-compliances.</li> <li>Identify and track non-compliant issues to resolution.</li> </ul>

<sup>&</sup>lt;sup>3</sup> Explanation of planned performance over medium-term period: All planned output indicators are achieved in line with the institution's policies and strategies.

Output Indicator	Annual Target	Q1		Q2		Q3	Q4
		•	Identify and track non- compliant issues to resolution. Monitor implementation of corrective measures to address non-compliances. Prepare quarterly report.	•	Monitor implementation of corrective measures to address non-compliances. Prepare quarterly report.	compliances.	<ul> <li>Conduct risk assessment of the legislative universe to assess legal and reputational risk.</li> <li>Prepare quarterly report.</li> </ul>

### Sub-programme 2: Corporate Support Services<sup>4</sup>

**Purpose:** The purpose of this programme is to provide strategic organisational support through the key functions of Human Resource Management, Knowledge and Information Management, Integrated Management Systems, Facilities and Security Management, Information and Communications Technology (ICT), Occupational Health and Safety, and Communication and Stakeholder Relations Management.

#### 1.2 Outcome, Outputs and Performance Indicators and Targets

			Annual Targets							
			Audited /Actual Performance			Estimated Performance MTEF Period				
Outcome	Outputs	Output Indicators	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	
Enhance stakeholder engagements (internal and external)	Stakeholder engagement plans	RM7: % implementation of the stakeholder engagement plan	N/A	N/A	N/A	100% implementation of the stakeholder relationship management plan	100% implementation of the stakeholder relationship management plan	implementation of the stakeholder engagement plan (including the public participation plan)	of the stakeholder engagement	
Enhance ICT capabilities to enable business support	ICT progress reports	PM1: % implementation of the ICT business support plan	N/A	N/A	N/A	100% implementation of all approved ICT strategic deliverables	implementation of	implementation of the ICT business support plan	100% implementation of the ICT business support plan	

<sup>&</sup>lt;sup>4</sup> Explanation of planned performance over medium-term period: All planned output indicators are achieved in line with the institution's policies and strategies.

#### 1.2.1 Output Indicator: Annual and Quarterly Targets.

Output Indicator	Annual Target	Q1	Q2	Q3	Q4
	100% implementation of the stakeholder engagement plan	Approve the stakeholder stakeholder engagement plan	100% implementation of quarterly planned activities		100% implementation of quarterly planned activities
·	100% implementation of the ICT business support plan	Approve the ICT business support plan		•	100% implementation of quarterly planned activities

# Sub-programme 3: Office of the Chief Financial Officer<sup>5</sup>

**Purpose:** The purpose of this programme is to provide organisational support in the area of financial management and administration. This is achieved through the following key functional streams: Financial Planning and Management, Financial Reporting, Asset Management and Supply Chain Management (Procurement), Accounts Payable, Accounts Receivable and Cash Book Management, and Payroll Management.

#### 1.3. Outcome, Outputs and Performance Indicators and Targets

			Annual Targets								
						Estimated Performance	MTEF Period				
Outcome	Outputs	Output Indicators	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25		
	budget	FM1: % funding of NNR planned activities	N/A	N/A		IT .	NNR planned	NNR planned activities	100% funding of NNR planned activities		
	Quarterly Financial Reports										
Financial Sustainability of the CNSS	report	FM2: % funding of CNSS planned activities	N/A	N/A	1	model of the CNSS	CNSS planned	CNSS planned activities	100% funding of CNSS planned activities		

<sup>&</sup>lt;sup>5</sup> Explanation of planned performance over medium-term period: All planned output indicators are achieved in line with the institution's policies and strategies.

			Annual Targets						
			Audited /Actual Performance Estimated Performance						
Outcome	Outputs	Output Indicators	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
previously disadvantaged	Management (SCM)	FM3: % procurement spend on designated groups		50% of procurement spent on designated groups	· · · · · · · · · · · · · · · · · · ·	spent on designated groups	procurement spent on	procurement spent on designated groups	70% of procurement spent on designated groups
Provision of adequate and safe facilities for the site office	Project reports	PM2: % implementation of the Cape Town office construction project plan	N/A	N/A	N/A	office construction project plan for the	Implementation of Cape Town Office construction	Implementation of Cape Town Office construction project plan	

# 1.3.1 Output Indicators: Annual and Quarterly Targets

Output Indicator	Annual Target	Q1	Q2	Q3	Q4
FM1: % funding of NNR planned activities	100% funding of NNR planned activities	l	term expenditure framework	Compilation of authorisation fees increase proposal.  Compile the annual budget proposal.	Submit budget for approval
FM2: % implementation of the CNSS funding model	100% funding of CNSS planned activities	N/A	100% funding of CNSS planned activities		100% funding of CNSS planned activities
FM3: % procurement spend on designated groups	70% procurement spend on designated groups		1	• •	70% procurement spend on designated groups
PM2: % implementation of the Cape Town office construction project plan	100% implementation of the Cape Town construction project plan		Cape Town construction	project plan	100% implementation of the Cape Town construction project plan

# <sup>6</sup>Programme resource consideration.

					Medium Term Expe	nditure Framework	
PROGRAMME 1: ADMINISTRATION	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Expenses	Audited outcome	Audited outcome	Audited outcome	Approved budget	Revised budget estimate	Revised budget estimate	Planning budget estimate
Compensation of employees	52 008 520	61 460 140	59 346 252	54 551 416	67 791 252	68 329 519	71 397 514
Salaries wages and social contributions	52 008 520	61 460 140	59 346 252	54 551 416	67 791 252	68 329 519	71 397 514
Goods and services	57 002 520	51 397 331	58 539 523	71 225 265	74 238 094	77 541 689	81 023 311
Staff expenses	6 335 969	6 681 144	1 787 731	6 365 071	6 634 313	6 929 540	7 240 677
Professional services	5 296 346	3 113 019	4 394 272	6 910 512	7 202 827	7 523 352	7 861 151
Operating expenses	8 779 275	7 019 409	6 170 559	10 031 530	10 455 864	10 921 150	11 411 510
Administrative expenses	14 832 397	15 240 602	17 566 987	19 091 706	19 899 285	20 784 803	21 718 041
Other operating expenditure	21 758 533	19 343 157	28 619 974	15 812 025	16 480 874	17 214 272	17 987 193
General/Capital Expenditure				13 014 422	13 564 932	14 168 572	14 804 740
Total expenditure	109 011 040	112 857 471	117 885 775	125 776 682	142 029 346	145 871 208	152 420 826

<sup>6</sup> The consolidated budget is linked to Programme 1: Administration and its sub-programmes 1 (LRC), 2 (CSS) and 3 (F) on measure: PM1, PM2, PM3, FM1, FM2, FM3 and RM7. The budget outlines how the planned outputs will be achieved.

# **Programme 2: Nuclear Power Plant.**<sup>7</sup>

**Purpose:** The purpose of this programme is to focus on a holistic approach towards regulating safety and security for nuclear power plant technology. In terms of its core functions, it delivers the Compliance Assurance and Enforcement activities, Reviews and Assessments and general oversight of the KNPS licence. Additionally, the programme focuses on issuing of authorisations for Nuclear Vessel Licences (NVL), licence change requests, and management of NPP projects throughout the facility's life cycle.

### 2.1 Outcomes, Outputs, Performance Indicators and Targets.

						Annual Targets			
			Audited /Actual Performance		Estimated Performance MTEF Period				
Outcome	Outputs	Output Indicators	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Maintain the implementation of regulatory programmes to assure effective nuclear safety regulation	<ul> <li>Inspection reports</li> <li>Letters to authorisation holder or applicant informing them of inspection outcomes.</li> <li>Inventory of inspections conducted</li> </ul>	RM2a: number of inspections conducted (NPP)	100%	100%	100% implementation of the CAP	29 NPP inspections conducted		35 NPP inspections conducted	41 NPP inspections conducted
	<ul> <li>Letter to authorisation holder or applicant informing them of review and assessment outcomes</li> <li>Inventory of reviews an assessments undertake</li> <li>Quarterly plan for reviews and assessments</li> </ul>	assessments plan (NPP)	100%	100%	100% implementation of reviews and assessments	100% Reviews and assessments undertaken	the reviews and	1 -	100% implementation of the reviews and assessments plan
	<ul> <li>Letter to authorisation holder or applicant informing them of review and assessment outcomes</li> <li>Inventory of reviews and assessments undertaked</li> <li>Quarterly plan for reviews and assessments</li> </ul>	assessments (NISL)	N/A	N/A	N/A	N/A		100% implementation of the reviews and assessments plan	100% implementation of the reviews and assessments plan

<sup>&</sup>lt;sup>7</sup> Explanation of planned performance over medium-term period: All planned output indicators are achieved in line with the institution's policies and strategies.

				Annual Targets							
			Audited /Actual Performance E			Estimated Performance MTEF Period					
Outcome	Outputs	Output Indicators	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25		
	holder or applicant informing them of review	RM2d: % implementation of reviews and assessments (SGR)	N/A	N/A	N/A	N/A	the reviews and	100% implementation of the reviews and assessments plan	the reviews and		
	, ,	RM4: % review of LTO safety case		Approved resource plan for LTO	New indicator	100% implementation of the LTO training plan	1	•	Final safety evaluation report		

## 2.1.1 Output Indicators, Annual and Quarterly Targets.

Output Indicator	Annual Target	Q1	Q2	Q3	Q4
RM2a: number of inspections conducted (NPP)	29 inspections conducted	Conduct 6 NPP inspections		Conduct 9 NPP inspections	Conduct 5 NPP inspections
RM2b: % implementation of the reviews and assessments plan (NPP)	100% implementation of the reviews and assessments plan	100% implementation of the reviews and assessments plan	100% implementation of the reviews and assessments plan		100% implementation of the reviews and assessments plan
RM2c: % implementation of the reviews and assessments plan (NISL)	100% implementation of the reviews and assessments plan	100% implementation of the reviews and assessments plan	100% implementation of the reviews and assessments plan		100% implementation of the reviews and assessments plan
RM2d: % % implementation of the reviews and assessments plan (SGR)	100% implementation of the reviews and assessments plan	100% implementation of the reviews and assessments plan	100% implementation of the reviews and assessments plan	100% implementation of the reviews and assessments plan	100% implementation of the reviews and assessments plan
RM4: % review of LTO safety case	Safety evaluation progress report	N/A	N/A		Safety evaluation progress report

# <sup>8</sup>Programme Resource Consideration

					Medium Term Expe	nditure Framework	
PROGRAMME 2: NUCLEAR POWER PLANT	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Expenses	Audited outcome	Audited outcome	Audited outcome	Approved budget	Revised budget estimate	Revised budget estimate	Planning budget estimate
Compensation of employees	34 787 840	30 367 736	28 773 876	29 339 121	36 161 655	37 770 849	39 466 760
Salaries wages and social contributions	34 787 840	30 367 736	28 773 876	29 339 121	36 161 655	37 770 849	39 466 760
Goods and services	19 316 866	17 304 998	16 861 520	28 692 720	29 906 422	31 237 258	32 639 811
Staff expenses	3 452 594	2 462 417	237 673	3 157 720	3 291 292	3 437 754	3 592 109
Professional services	14 208 885	13 989 313	15 949 092	23 600 000	24 598 280	25 692 903	26 846 515
Operating expenses	362 107	69 776	-	360 000	375 228	391 926	409 523
Administrative expenses	1 293 280	783 492	674 755	1 526 000	1 590 550	1 661 329	1 735 923
Other operating expenditure	-	-		-	-	-	-
General/Capital Expenditure				49 000	51 073	53 345	55 741
Total expenditure	54 104 706	47 672 734	45 635 396	58 031 841	66 068 077	69 008 107	72 106 571

<sup>&</sup>lt;sup>8</sup> The consolidated budget is linked to Programme 2: Nuclear Power Plant on measure RM2a, RM2b, RM2c, RM2d and RM4. The budget outlines how the planned outputs will be achieved.

# Programme 3: Nuclear Technology & Waste Projects and Naturally Occurring Radioactive Material9

**Purpose:** The programme comprises of two sub-programmes that focus on the regulation of nuclear technology and waste projects, including various nuclear and radiation facilities on the Necsa Pelindaba site and the Vaalputs National Radioactive Waste Disposal Facility: and the regulation of facilities and activities involving NORM and public radiation exposure from previously contaminated NORM sites as well as radon. NTN provides a holistic approach towards regulating nuclear and radiation safety as well as nuclear and radiation security. The programme focuses on the issuing of nuclear authorisations, including Nuclear Installation Licences (NIL), Nuclear Vessel Licences (NVL), Certificates of Registration (CoR) and Certificates of Exemption (CoE) and amendments thereto, as well as conducting reviews and assessments related to the safety of these facilities and activities. Furthermore, it delivers compliance assurance and enforcement activities, which include conducting inspections, investigations, surveillances and environmental monitoring and sampling related to nuclear technology facilities and activities, radioactive waste management and all identified NORM facilities.

				Annual Targets							
			Audited /Actual Performance		Estimated Performance	MTEF Period					
Outcome	Outputs	Output Indicators	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25		
Maintain the implementation of regulatory programmes to assure effective nuclear safety regulation	reports	RM2a: number of inspections conducted (NORM)	100%	100%	120 NORM inspections conducted	120 NORM inspections conducted	120 NORM inspections conducted		120 NORM inspections conducted		
	reports	RM2a: number of inspections conducted (NTWP)	100%	100%	50 NTWP inspections conducted	50 NTWP inspections conducted	85 NTWP inspections conducted	inspections	90 NTWP inspections conducted		

<sup>&</sup>lt;sup>9</sup> Explanation of planned performance over medium-term period: All planned output indicators are achieved in line with the institution's policies and strategies

				Annual Targets							
			Audited /Actual Performance			Estimated Performance	MTEF Period				
Outcome	Outputs	Output Indicators	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25		
	authorisation holder or		100%	100%	assessments	of reviews and assessments	the reviews and	assessments plan	of the reviews		
	authorisation holder or		100%	100%	assessments	of the reviews and assessments plan		assessments plan	of the reviews		
		RM3: Develop stakeholder consultation plan		Draft radon action plan	-	, ,	1	Consultations as per plan	Final national regulatory framework		

## 3.3.1 Output Indicators: Annual and Quarterly Targets.

Output Indicator	Annual Target	Q1	Q2	Q3	Q4
RM2a: number of inspections conducted (NORM)	120 inspections conducted	Conduct 35 NORM inspections	Conduct 35 NORM inspections	Conduct 25 NORM inspections	Conduct 25 NORM inspections
RM2a: number of inspections conducted (NTWP)	85 inspections conducted	Conduct 25 NTWP inspections	Conduct 30 NTWP inspections	Conduct 16 NTWP inspections	Conduct 14 NTWP inspections
RM2b: % implementation of the reviews and assessments plan (NORM)	100% implementation of the reviews and assessments plan	100% implementation of the reviews and assessments plan	100% implementation of the reviews and assessments plan	100% implementation of the reviews and assessments plan	100% implementation of the reviews and assessments plan
RM2b: % implementation of the reviews and assessments plan (NTWP)	100% implementation of the reviews and assessments plan	100% implementation of the reviews and assessments plan	100% implementation of the reviews and assessments plan	100% implementation of the reviews and assessments plan	100% implementation of the reviews and assessments plan
RM3: Develop the stakeholder consultation plan	Approved Stakeholder Consultation Plan	N/A	N/A	N/A	Approve Stakeholder Consultation Plan

# <sup>10</sup>Programme Resource Considerations

PROGRAMME 3: NUCLEAR TECHNOLOGY AND					Medium Term Expe	enditure Framework	
WASTE PROJECTS NATURALLY OCCURING RADIOACTIVE MATERIALS	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Expenses	Audited outcome	Audited outcome	Audited outcome	Approved budget	Revised budget estimate	Revised budget estimate	Planning budget estimate
Compensation of employees	33 206 287	39 280 785	40 905 161	48 470 864,74	55 475 532	57 944 194	60 545 888
Salaries wages and social contributions	33 206 287	39 280 785	40 905 161	48 470 865	55 475 532	57 944 194	60 545 888
Goods and services	3 243 391	3 514 607	1 249 455	3 144 500	3 277 512	3 423 362	3 577 071
Staff expenses	2 212 158	2 707 672	1 102 606	2 407 500	2 509 337	2 621 003	2 738 686
Professional services	624 035	498 083	-	250 000	260 575	272 171	284 391
Operating expenses	330 927	191 438	75 331	230 000	239 729	250 397	261 640
Administrative expenses	76 271	117 414	71 518	110 000	114 653	119 755	125 132
Other operating expenditure	-	-	-	-	-	-	-
General/Capital Expenditure				147 000	153 218	160 036	167 222
Total expenditure	36 449 678	42 795 392	42 154 616	51 615 365	58 753 045	61 367 555	64 122 958

<sup>10</sup> The consolidated budget is linked to Programme 3: Nuclear Technology & Norm and its Sub-programmes 1 (NORM) and 2 (NTWP) on measure RM2a, RM2b, and RM3. The budget outlines how the planned outputs will be achieved.

# Programme 6: Regulatory Improvement and Technical Support<sup>11</sup>

The purpose of this programme is to provide cross-cutting nuclear safety services to all NNR technical departments. In terms of its core functions, Regulatory Improvement and Technical Support (RITS) performs In-depth nuclear safety reviews and assessments for all regulated facilities independent verification by computer codes, Emergency Preparedness and Response services, Laboratory services, Development of regulatory standards and nuclear projects, and Coordination of nuclear security, and safety and security culture function. CNSS is the flagship of the programme with the aim to develop capabilities in order to improve regulatory practices related to nuclear safety and security, this is achieved through targeted Regulatory Research and Development (RRD), Education and Training (E&T) and Technical and Scientific Support (TSS). In order to maximise resources, CNSS collaborates with international and local academic and research institutions, as well as Technical and Scientific Organisations (TSOs) in order to execute any activities falling within the mandate of the NNR

6.1 Outcomes, Outputs, Performance Indicators and Targets

<sup>&</sup>lt;sup>11</sup> Explanation of planned performance over medium-term period: All planned output indicators are achieved in line with the institution's policies and strategies.

			Annual Targets						
			Audited /Actual Performance	Estimated Performance		MTEF Period			
Outcome	Outputs	Output Indicators	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Provide an independent radio-analytical verification capability and capacity	SANAS Accreditation Report SANAS action plan and progress reports	RM1: SANAS Accreditation Gamma Spec: (Soil/Sediment and Water) ISO/IEC 17025:2017	N/A	N/A	N/A	Submitted SANAS application form	Accreditation Report Gamma Spec: (Soil/Sediment) ISO/IEC	Uranium Method. Re-Validation of Radium and Thorium Method. Verification of Polonium Method in water.	Alpha Spectrometry: Uranium, Radium and Thorium in water) SANAS application. Polonium Method validation in water by Alpha Spectrometry.
Ensure readiness to regulate SMRs.	report	RM5: % implementation of the SMR plan	N/A	N/A	N/A	Benchmarking Report on SMRs regulation		implementation plan. Implementation progress report as	Approved SMR annual implementation plan. Implementation progress report as per plan.
Ensure the long- term sustainability of the CNSS		RM6: Develop pilot report	N/A	N/A	Approved CNSS Sustainability Plan	Approved sustainability strategy		Approved CNSS Pilot Report (Year 2)	CNSS Programme Evaluation Report

# 6.1.1 Output Indicators: Annual and Quarterly Targets.

Output Indicator	Annual Target	Q1	Q2	Q3	Q4
RM1: SANAS Accreditation Gamma Spec: (Soil/Sediment and Water) ISO/IEC 17025:2017	SANAS Report	Approve Accreditation plan	<ul> <li>100%         implementation of         the accreditation         plan quarterly         activities.</li> <li>Approved SANAS         action plan.</li> <li>100%         implementation of         the SANAS action         plan quarterly         activities.</li> </ul>	<ul> <li>100% implementation of the accreditation plan quarterly activities.</li> <li>100% implementation of the SANAS action plan quarterly activities.</li> </ul>	<ul> <li>100% implementation of the accreditation plan quarterly activities.</li> <li>100% implementation of the SANAS action plan quarterly activities.</li> <li>Engagement with SANAS on the Assessment of Gamma Spectrometry.</li> </ul>
RM5: % implementation of the SMR readiness plan	NNR Readiness report on SMRs Regulation with plan of action	N/A	Approve SMR annual implementation plan.	100% implementation of quarterly activities	100% implementation of quarterly activities
RM6: Develop pilot report (Year 1)	Approved CNSS Pilot Report	Prepare pilot plan for Year 1	Conduct pilot study for each of the pillars of the CNSS (Education and Training, Technical Support Services and Research)	N/A	Compile pilot report

# <sup>12</sup>Programme Resource Consideration

DDOOD AMME 4. DEOLII ATODY IMPROVEMENT					Medium Term Expe	enditure Framework	
PROGRAMME 4: REGULATORY IMPROVEMENT AND TECHNICAL SERVICES	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25
Expenses	Audited outcome	Audited outcome	Audited outcome	Approved budget	Revised budget estimate	Revised budget estimate	Planning budget estimate
Compensation of employees	30 364 649	38 519 761	44 473 729	52 993 504	61 996 140	64 754 968	67 662 466
Salaries wages and social contributions	30 364 649	38 519 761	44 473 729	52 993 504	61 996 140	64 754 968	67 662 466
Goods and services	13 846 128	11 984 535	6 296 551	18 655 274	19 444 392	20 309 667	21 221 571
Staff expenses	2 368 385	2 351 480	1 235 082	2 929 798	3 053 728	3 189 619	3 332 833
Professional services	1 772 283	1 092 178	636 767	2 734 125	2 849 778	2 976 594	3 110 243
Operating expenses	7 860 714	7 484 332	3 683 230	8 677 809	9 044 880	9 447 377	9 871 565
Administrative expenses	1 844 746	1 056 545	741 472	2 715 842	2 830 722	2 956 689	3 089 445
Other operating expenditure	-	-	-	50 000	52 115	54 434	56 878
General/Capital Expenditure				1 547 700	1 613 168	1 684 954	1 760 608
Total expenditure	44 210 777	50 504 296	50 770 280	71 648 778	81 440 531	85 064 635	88 884 037

<sup>12</sup> The consolidated budget is linked to Programme4: Regulatory Improvement & Technical Services and its Sub-programmes 1 (CNSS) on measure RM1, RM5 and RM6. The budget outlines how the planned outputs will be achieved.

### 3.1 <sup>13</sup>Explanation of planned Performance over the planning cycle

All planned outcomes, outputs and performance indicators are achieved in line with the institution's policies and strategies. The planned performance is planned and linked in accordance with the NDP, the MTSF priorities, particularly towards ensuring social cohesion and safer communities, the DMRE priorities as well as women, youth and people with disabilities.

The NNR has identified and adopted the below listed outcomes for the next five-year cycle. These are reviewed on an annual basis to test relevance and to ensure alignment with prevailing circumstances in achieving the intended impact. They are outlined as follows:

### Outcomes:

- Provide an independent radio-analytical verification capability and capacity.
- Maintain the implementation of regulatory programmes to assure effective nuclear safety regulation.
- Provide an effective oversight of the Long-Term Operations.
- Ensure the readiness to Regulate SMRs.
- Ensure the long-term sustainability of the CNSS.
- Enhance stakeholder engagements (internal and external).
- Enhance ICT capabilities to enable business support.
- Ensure proactive management of potential litigation.
- Provision of adequate and safe facilities for the site office.
- Adequate funding for execution of NNR's mandate.
- Financial Sustainability of the CNSS.
- Inclusion of previously disadvantaged individuals in economic activities.

<sup>13</sup> Explanation of planned performance over medium-term period: All planned output indicators are achieved in line with the institution's policies and strategies

## 4. Budget Programme Resource Consideration

Statement of financial perfomance											Expen-					Expen-
Otatement of infancial performance									Outcome/	Average	diture/				Average	diture/
									Budget	growth	total:				growth	total:
		Audited		Audited		Audited	Budget		Average	rate	Average				rate	Average
	Budget	outcome	Budget	outcome	Budget	outcome	•	proved budget	Avelage	(%)	Average (%)	Madii	ım-term estimate		(%)	Average (%)
R thousand	2018/19	outcome	2019/20	outcome	2020/21	outcome	2021/22		/0 <sub>1</sub>	2018/19-2021/22	(70)	2022/23	2023/24	2024/25	2021/22 - 20	
Revenue	200,10		2010/20		2424721					010/10 2021/22		242124	242421	202 1/20		72 1124
Tax revenue	_	_[	_	_	_	_	_	_	_	_	_	_	_	_	_]	_
Non-tax revenue	211 952	214 320	223 660	227 775	244 932	240 886	238 760	260 983	102,7%	6.8%	86.9%	300 983	314 362	328 476	8,0%	86,4%
Sale of goods and services other than capital	180 339	183 647	199 926	196 440	212 814	212 714	210 884	210 884	100,0%	4,7%	74,1%	250 094	261 224	272 952	9,0%	71,3%
assets									,	,						,
Sales of goods and services produced by entity	180 339	183 647	199 926	196 440	212 814	212 714	210 884	210 884	100,0%	4,7%	74,1%	250 094	261 224	272 952	9,0%	71,3%
of which:																
Administrative fees	180 339	183 647	199 926	196 440	212 814	212 714	210 884	210 884	100,0%	4,7%	74,1%	250 094	261 224	272 952	9,0%	71,3%
Sales by market establishment	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other sales	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sales of scrap, waste, arms and other used	-	-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-
current goods																
Other non-tax revenue	31 613	30 673	23 734	31 335	32 118	28 172	27 876	50 099	121,6%	17,8%	12,8%	50 889	53 138	55 524	3,5%	15,1%
Transfers received	16 510	16 510	43 096	43 096	40 467	40 467	46 089	46 089	100,0%	40,8%	13,1%	47 308	46 949	49 057	2,1%	13,6%
Total revenue	228 462	230 830	266 756	270 871	285 399	281 353	284 849	307 072	102,3%	10,0%	100,0%	348 291	361 311	377 533	7,1%	100,0%
Expenses															-	
Current expenses	228 462	243 776	266 756	253 830	285 399	256 445	284 849	307 072	99,6%	8,0%	100,0%	348 291	361 311	377 533	7,1%	100,0%
Compensation of employees	142 350	150 368	165 606	169 119	186 508	170 223	196 195	200 114	99,9%	10,0%	65,0%	238 138	246 272	257 329	8,7%	67,5%
Goods and services	72 025	78 645	87 778	70 035	85 775	72 747	76 437	95 026	98,3%	6,5%	29,8%	99 046	103 453	108 098	4,4%	29,2%
Depreciation	10 369	10 854	9 450	11 646	10 536	12 010	11 010	10 642	109,2%	-0,7%	4,3%	11 092	11 586	12 105	4,4%	3,3%
Interest, dividends and rent on land	3 718	3 909	3 922	3 030	2 580	1 465	1 207	1 290	84,8%	-30,9%	0,9%	15	_	-	-100,0%	0,1%
Transfers and subsidies	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total expenses	228 462	243 776	266 756	253 830	285 399	256 445	284 849	307 072	99,6%	8,0%	100,0%	348 291	361 311	377 533	7,1%	100,0%
Surplus/(Deficit)	-	(12 946)	-	17 041	-	24 908	-	-		-100,0%		-	-	-	-	

Figure 8: Budget programme resource considerations

### **Explanatory: Revenue Sources of the NNR**

The main sources of revenue for NNR are the application and authorisation fees paid to the NNR in terms of section 28 of National Nuclear Regulator Act (Act No. 47 of 1999) and Government transfers (money appropriated by Parliament). The NNR also received revenue from other sources such as, interest earned, donations and/or contributions received by the NNR, with the approval of the Minister, from any source.

The NNR revenue budget for 2021/22 financial year is R307 million. This budget is expected to grow, over the MTEF period, at an average of 4,39% per annum. The Minister of DMRE may, on the recommendation of the board and in consultation with the Minister of Finance, and by notice in the Gazette, determine the fees payable to the NNR in respect of any annual nuclear application and authorisation fee. On average, application, and authorisation fees account for about 82% of the NNR revenue budget and the remaining revenue is from Government transfer (15%), interest earned (2%) and other income (1%). The NNR revenue collection is expected to remain stable over the MTEF period. However, the unforeseen closure of mining and mineral processing facilities, liquidations, revocations, reclassifications and decommissioning of facilities, mainly attributed to the effects of the Covid-19 and the lockdown restrictions may hinder the entity's efforts to maximize revenue collections.

# 5. Updated Key Risks and Mitigations

Outcome	Key risk	Risk mitigation
Provide an independent radio- analytical verification capability and capacity.	Lack of SANAS accreditation for existing Laboratory methods.	<ul> <li>Updating of the accreditation plan and development SANAS corrective action plan.</li> <li>Implementation of the activities of the approved accreditation plan and SANAS corrective action plan.</li> </ul>
Ensure the readiness to regulate SMRs	Inadequate Regulatory Standards to regulate and authorise SMR's or new technology	<ul> <li>1. Update and implement SMR Annual Plan.</li> <li>2. Progress Report on Gap Analysis on Regulatory Standards as per SMR Annual Plan</li> </ul>
Maintain the implementation of regulatory programmes to assure effective nuclear safety regulation.	Inconsistency in implementation of enforcement actions.	<ul> <li>Develop Work Instruction for inspectors on implementation of enforcement actions.</li> <li>Finalise the enforcement modules of the Inspector training programme.</li> <li>Develop and implement the plan for grading matrix related to non-compliances.</li> <li>Development of non-compliance database.</li> </ul>
	Failure to complete compliance assurance activities on time (inspections, environmental verification, investigation, etc.)	<ul> <li>Fill existing vacancies that are funded as they arise.</li> </ul>
	Failure to complete NISL and SGR review and assessment tasks	<ul> <li>1.Identify project leader/team leaders</li> <li>2.Appoint project leader/team leaders</li> </ul>
	Failure to complete effective consultations with all relevant external stakeholders on Indoor Radon Regulatory Framework	<ul> <li>1. Initiate meetings involving organisation's CEOs / DGs or Executives.</li> <li>2. Invite relevant stakeholders to workshop and meetings.</li> <li>3. Develop focused communication providing details on each stakeholder role on indoor radon regulatory control in South Africa.</li> </ul>
	Failure to complete reviews and assessment within timelines requested by applicants and authorisation holders	1. Continue to motivate for positions to be filled
Provide an effective oversight of the Long-Term Operations.	Delays in processing LTO application.	<ul> <li>Draft recommendation for LTO authorisation fees.</li> <li>Streamline recruitment process to enable hiring competent individuals.</li> <li>Internal training based on Technical Assessment Guide (TAG) 5.</li> <li>Ensure public engagements by Eskom.</li> <li>Collate information from bilateral partners in preparation for review.</li> </ul>
	Undue pressure to finalise informed regulatory decision for LTOs	<ul> <li>Develop a Technical Assessment Guide.</li> <li>Apprise the Executive Authority on progress made to the project.</li> <li>Monitor Eskom's LTO dashboard.</li> </ul>
Adequate funding for execution of NNR's mandate	Inability to sustain the NNR financially	<ul> <li>1. Continue to pursue approval of funding model by the DMRE.</li> <li>2. Intensify financial compliance during compliance assurance activities.</li> </ul>
Enhance ICT capabilities to enable business support.	Compromise of information and business continuity and inability to operate effectively in a changing environment.	<ul> <li>Conduct regular and ongoing environmental scans and risk assessments to identify new and emerging threats.</li> <li>Conduct ICT security assessments and tests and implement remediation plans to address identified gaps.</li> <li>Develop and implement a business continuity plan, which includes regular testing.</li> <li>Implement ICT governance standards, monitor, and report on compliance with standards.</li> <li>Implement ICT training and communication plan for employees.</li> <li>Develop and implement a training plan for ICT personnel.</li> </ul>
Ensure the long-term sustainability of the CNSS.	Inability to leverage relevant strategic partnership.	<ul> <li>Develop Spokes/Project specific agreements.</li> </ul>

Outcome	Key risk	Risk mitigation
		<ul> <li>Implementation of revised CNSS processes (RRD/TSS/E&amp;T/SPs).</li> </ul>
Financial sustainability of the CNSS	Financial sustainability of the CNSS	Implement and report on the interim sustainability strategies for each of the CNSS pillars and revise them as appropriate based on the pilot projects     Implementation of Integrated CNSS Sustainability Plan in consultation with CSS/review of Pelekeza report and revise as appropriate based on the pilot projects.
Ensure proactive management of potential litigation.	Any possible legal challenges to NNR.	<ul> <li>Review and update NNR regulatory universe.</li> <li>Assess and monitor compliance on a quarterly basis.</li> <li>Monitor and report on legislative compliance.</li> <li>Annual refresher training on POPIA training.</li> </ul>
Enhance stakeholder engagements (internal and external).	Compromise and damage to the reputation of the regulator.	<ul> <li>Develop and implement a relevant 2022-2023 stakeholder engagement plan for internal and external stakeholders.</li> </ul>
Provision of adequate and safe facilities for the site office.	Further project delay due to the demand of increase in fees by the professional service team	Appointment of a mediator to intervene between parties in terms of the service level agreement.
Inclusion of previously disadvantaged individuals in economic activities.	Lack of capable service providers to deliver required scientific specialised services	<ul> <li>Continuous engagement with stakeholders in industry events and activities</li> <li>Continuously testing the market and setting aside bids for PDI's where market is conducive.</li> </ul>

Table 8: Updated Key Risks and Mitigations.

## 6. PUBLIC ENTITIES

Name of public entities	Mandate	Outcomes
N/A	N/A	N/A

Table 9: Public entities

### 7. INFRASTRUCTURE PROJECTS

No.	Project Name	Programme	Description	Outputs	Start Date	Completion Date	Total Estimated Cost	Current Year Expenditure
1.	Cape Town office construction project	Finance	Construction of office building to accommodate NNR employees in Cape Town	NNR Cape Town office space/building	November 2014	December 2024	R56 million	A total of R2 628 923 has been spent to date since inception of professional services on the construction of the Cape Town building

Table 10: Infrastructure projects

### 8. PUBLIC-PRIVATE PARTNERSHIP

Name	Purpose	Outputs	Current value of agreement	End date agreement
N/A	N/A	N/A	N/A	N/A

Table 11: Public-Private Partnership

## PART D: TECHNICAL INDICATOR DESCRIPTION

Outcome	Ensure proactive management of potential litigation.
Indicator Title	PM3: Level of legislative compliance
Definition  Source/Collection of Data	The level to which the NNR complies with primary legislation as measured through the Exclaim software.
Source/Collection of Data	Quarterly legislative compliance report
Method of Calculation	A systems (Exclaim) generated % of compliance to legislation
Means of Verification (PoE)	Quarterly legislative compliance report
Assumptions	<ul> <li>Adequate capacity within Legal, Risk and Compliance</li> <li>Availability and co-operation from stakeholders (Act Owners and Workflow users)</li> <li>Available budget for the system</li> </ul>
Disaggregation of Beneficiaries (where applicable)	N/A
Spatial Transformation (where applicable)	N/A
Calculation Type	Non-cumulative
Reporting Cycle	Quarterly
Desired Performance	100% compliance to applicable legislation
Indicator Responsibility	Senior Manager: Legal Risk and Compliance

Outcome	Enhance stakeholder engagements (internal and
	external).
Indicator Title	RM7: % implementation of the stakeholder engagement plan
Definition	This indicator measures the level the NNR engages with
	stakeholders internally and externally.
Source/Collection of Data	Engagement plan
	Corporate calendar
Method of Calculation	A calculated percentage of activities as per the plan i.e.  Actual Performance
	Planned performance
	The formula is also applicable for calculation of the
	annual target.
Means of Verification (PoE)	Stakeholder engagement plan
	Quarterly reports
Assumptions	Availability of financial and human resources
	to implement the plan.
	Conducive external environment.
	<ul> <li>Co-operation from stakeholders.</li> </ul>
Disaggregation of Beneficiaries	N/A
(where applicable)	
Spatial Transformation (where	N/A
applicable)	
Calculation Type	Non-cumulative
Reporting Cycle	Quarterly
Desired Performance	100% implementation of the stakeholder engagement
	plan.
Indicator Responsibility	Divisional Executive: CSS

Outcome	Enhance ICT capabilities to enable business support.
Indicator Title	PM1: % implementation of the ICT business support plan
Definition	Implementation of the approved information
	communication and technology plan to enhance business
	operations.
Source/Collection of Data	Annual ICT security plan.
	Relevant status reports.
Method of Calculation	A calculated percentage of activities as per the plan i.e.  Actual Performance Planned performance
	The formula is also applicable for calculation of the annual target.
Means of Verification (PoE)	Approved plans and progress reports.
Assumptions	<ul> <li>Business requirements timeously and clearly identified by divisions.</li> <li>Timeous approval of planned initiatives by business.</li> <li>Implementation of initiatives by divisions.</li> </ul>
Disaggregation of Beneficiaries	N/A
(where applicable)	
Spatial Transformation (where applicable)	N/A
Calculation Type	Non-cumulative
Reporting Cycle	Quarterly
Desired Performance	100% implementation of the ICT business support plan
Indicator Responsibility	Divisional Executive: CSS

Outcome	Financial sustainability of the CNSS.
Indicator Title	FM1: % funding of NNR planned activities
Definition	Budget plan for NNR activities
Source/Collection of Data	Board approved budget
Method of Calculation	Milestones as per the organisational performance framework.
Means of Verification (PoE)	<ul><li>Board approved budget</li><li>Quarterly financial reports</li></ul>
Assumptions	<ul> <li>Submission of complete authorisation holders' database in the beginning of the financial year.</li> <li>Billing of authorisation holders within 60 days from the beginning of the financial year</li> <li>The requested % increase of authorisation fees granted by the Minister of Minerals, Resources and Energy</li> <li>There is not significant budget cuts/ austerity measures</li> </ul>
Disaggregation of Beneficiaries (where applicable)	N/A
Spatial Transformation (where applicable)	N/A
Calculation Type	Non-cumulative
Reporting Cycle	Quarterly
Desired Performance	100% funding of NNR planned activities
Indicator Responsibility	Chief Financial Officer

Outcome	Financial sustainability of the CNSS.
Indicator Title	FM2: % funding of CNSS planned activities
Definition	The implementation of the approved funding model to
	fund and sustain the CNSS.
Source/Collection of Data	CNSS sustainability plan
	<ul> <li>Approved funding model</li> </ul>
Method of Calculation	Milestones as per the organisational performance
	framework regarding plans.
Means of Verification (PoE)	Approved quarterly financial report
Assumptions	Viable and sustainable CNSS business case
Disaggregation of Beneficiaries	N/A
(where applicable)	
Spatial Transformation (where	N/A
applicable)	
Calculation Type	Non-cumulative
Reporting Cycle	Quarterly
Desired Performance	100% funding of CNSS planned activities
Indicator Responsibility	Chief Financial Officer

Outcome	Inclusion of previously disadvantaged individuals in economic activities.
Indicator Title	FM3: % procurement spent on designated groups
Definition	The percentage of procurement spent against the total
	procurement value of planned bids, as per the
	Preferential Procurement Policy Framework Act
	(PPPFA). This is to ensure that previously
	disadvantaged individuals are included in the
	economic activities of the NNR.
Source/Collection of Data	Demand Plan
	Procurement records
Method of Calculation	A calculated percentage of activities as per the plan
	i.e.
	Actual Performance
	Planned performance
	The formula is also applicable for calculation of the
	annual target.
Means of Verification (PoE)	Supply Chain Management (SCM) report
	on bids awarded to targeted groups
Assumptions	Response by prospective suppliers or
	service providers from the designated
	groups as the NNR invites bids.
Disaggregation of Beneficiaries (where	Designated groups in terms of the PPPFA
applicable)	
Spatial Transformation (where	N/A
applicable)	
Calculation Type	Non-cumulative
Reporting Cycle	Quarterly
Desired Performance	70% procurement spent on designated groups
Indicator Responsibility	Chief Financial Officer

Outcome	Provision of adequate and safe facilities for the site office.
Indicator Title	PM2: % implementation of the Cape Town office
	construction project plan
Definition	This is the extent to which project milestones and
	activities are carried out to complete the project.
Source/Collection of Data	Project plan
	Business case (for the project).
Method of Calculation	A calculated percentage of activities as per the plan
	i.e.
	Actual Performance Planned performance
	The formula is also applicable for calculation of the
	annual target.
Means of Verification (PoE)	Project plan
	Project report
Assumptions	Availability of procurement spent.
	Resource costs are consistent and within
	the 20% escalation by National Treasury.
	<ul> <li>The scope of the project will not change.</li> </ul>
	Implementation of the project schedule will
	be as planned by Professional Service
	Team, the NNR, and the Building
	Contractor.
Disaggregation of Beneficiaries (where	N/A
applicable)	
Spatial Transformation (where	N/A
applicable)	
Calculation Type	Non-cumulative
Reporting Cycle	Quarterly
Desired Performance	100% implementation of the Cape Town office
	construction project plan
Indicator Responsibility	Chief Financial Officer

Outcome	Maintain the implementation of regulatory
	programmes to assure effective nuclear and radiation
	safety regulation.
Indicator Title	RM2a: number of inspections conducted (NORM, NTWP
	and NPP)
Definition	The number of regulatory inspections conducted
	based on the Compliance Assurance Plan (CAP)
	The NNR (CAP) is made up of the following
	activities:
	Inspections of authorised facilities.
	Audits of specific areas when required.
	<ul> <li>Investigations of specific matters where applicable.</li> </ul>
	Enforcement actions when there is nuclear safety
	or security breach; and
	Analysis of environmental samples i.e., air,
	water, soil, sediments etc. around facilities and/or
	communities around installations.
Source/Collection of Data	Compliance Assurance Plan
	Inventory of inspections conducted
Method of Calculation	A calculated percentage of activities as per the plan i.e.
	Actual Performance Planned performance
	The formula is also applicable for calculation the of annual
	target.
Means of Verification (PoE)	Inspection reports
	<ul> <li>Letters to authorisation holder or applicant</li> </ul>
	informing them of inspection outcomes
	<ul> <li>Inventory of inspections conducted</li> </ul>
Assumptions	Availability of NNR human and financial
	resources
	<ul> <li>Availability of authorisation holder personnel</li> </ul>
	<ul> <li>Availability of tools and equipment</li> </ul>
	<ul> <li>NNR allowed unfettered access to sites</li> </ul>

Disaggregation of Beneficiaries (where applicable)	N/A
Spatial Transformation (where applicable)	N/A
Calculation Type	Non-cumulative
Reporting Cycle	Quarterly and annually
Desired Performance	All planned inspections conducted
Indicator Responsibility	Divisional Executive: NTN; Divisional Executive: NPP

Outcome	Maintain the implementation of regulatory
	programmes to assure effective nuclear and
	radiation safety regulation.
Indicator Title	RM2b: 14% % implementation of the reviews and
	assessments plan (NORM, NTWP and NPP)
Definition	Reviews and assessments undertaken for effective
	nuclear and radiation safety regulation in the NORM,
	NTWP and NPP programmes
Source/Collection of Data	<ul> <li>Authorisation holder         documentation/submissions and requests for         various approvals to the NNR</li> <li>Database of submissions</li> </ul>
Method of Calculation	A calculated percentage of activities as per the plan i.e.  Actual Performance Planned performance  The formula is also applicable for calculation of the annual target.
Means of Verification (PoE)	Letter to authorisation holder or applicant,
	informing them of review and assessment
	outcomes
	<ul> <li>Quarterly plan for reviews and assessments</li> </ul>
	<ul> <li>Inventory of reviews and assessments</li> </ul>
	undertaken
Assumptions	<ul> <li>Holders of nuclear authorisations and</li> </ul>
	applicants submit safety assessments as per
	agreed schedule
	Availability of NNR resources
	Availability of TSO resources to assist with
	reviews, as necessary.
	Availability of authorisation holder personnel.
	Availability of tools and equipment.  NND allowed watertard access to sites.
	NNR allowed unfettered access to sites.
Disaggregation of Beneficiaries (where applicable)	N/A
Spatial Transformation (where	N/A
applicable)	

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<sup>&</sup>lt;sup>14</sup> The Regulator and each of the holders agree on the schedule of reviews and assessments on a quarterly basis. An annual reconciliation is done at the end of the financial year (FY)

Calculation Type	Non-cumulative
Reporting Cycle	Quarterly and annually
Desired Performance	100% implementation of reviews and assessments for all programmes (NORM, NTWP and NPP)
Indicator Responsibility	Divisional Executive NTN; Divisional Executive NPP

Outcome	Maintain the implementation of regulatory programmes
	to assure effective nuclear and radiation safety
	regulation.
Indicator Title	RM2c: % implementation of the reviews and assessments plan (NISL)
Definition	Reviews and assessments undertaken for effective nuclear
	and radiation safety regulation for Nuclear Installation Site
	License project.
Source/Collection of Data	Authorisation holder documentation/submissions
	and requests for various approvals to the NNR
	Database of submissions
Method of Calculation	A calculated percentage of activities as per the plan i.e.  Actual Performance Planned performance  The formula is also applicable for calculation of the annual target.
Means of Verification (PoE)	Letter to authorisation holder or applicant,
	informing them of review and assessment
	outcomes
	<ul> <li>Quarterly plan for reviews and assessments</li> </ul>
	Inventory of reviews and assessments
	undertaken
Assumptions	<ul> <li>Holders of nuclear authorisations and applicants submit safety assessments as per agreed schedule</li> <li>Availability of NNR resources</li> <li>Availability of TSO resources to assist with reviews, as necessary.</li> <li>Availability of authorisation holder personnel.</li> <li>Availability of tools and equipment.</li> <li>NNR allowed unfettered access to sites.</li> </ul>
Disaggregation of Beneficiaries (where	N/A
applicable)	
Spatial Transformation (where	N/A
applicable)	
Calculation Type	Non-cumulative
Reporting Cycle	Quarterly and annually
Desired Performance	100% implementation of the reviews and assessments plan
	for the NISL project
Indicator Responsibility	Divisional Executive NPP

Outcome	Maintain the implementation of regulatory programmes
	to assure effective nuclear and radiation safety
	regulation.
Indicator Title	RM2d: % implementation of the reviews and assessments plan (SGR)
Definition	Reviews and assessments undertaken for effective nuclear
	and radiation safety regulation with regards to the Steam
	Generator Replacement project.
Source/Collection of Data	Authorisation holder documentation/submissions
	and requests for various approvals to the NNR
	Database of submissions
Method of Calculation	A calculated percentage of activities as per the plan i.e.
	Actual Performance Planned performance
	The formula is also applicable for calculation of the annual
	target.
Means of Verification (PoE)	Letter to authorisation holder or applicant,
	informing them of review and assessment
	outcomes
	<ul> <li>Quarterly plan for reviews and assessments</li> </ul>
	Inventory of reviews and assessments
	undertaken
Assumptions	Availability of NNR human and financial
	resources.
	<ul> <li>Availability of authorisation holder personnel.</li> </ul>
	<ul> <li>Availability of tools and equipment.</li> </ul>
	NNR allowed unfettered access to sites
Disaggregation of Beneficiaries (where	N/A
applicable)	
Spatial Transformation (where	N/A
applicable)	
Calculation Type	Non-cumulative
Reporting Cycle	Quarterly and annually
Desired Performance	100% implementation of the reviews and assessments plan
	for the SGR project
Indicator Responsibility	Divisional Executive NPP

Outcome	Maintain the implementation of regulatory programmes to assure effective nuclear and radiation safety regulation.
Indicator Title	RM3: Develop stakeholder consultation plan
Definition	Development of a plan to engage stakeholders regarding participation in the development of the Radon in Dwellings National Plan.
Source/Collection of Data	<ul><li>Radon regulatory framework</li><li>Stakeholder consultation plan</li></ul>
Method of Calculation	Milestones (approval stages) as per the organisational performance framework.
Means of Verification (PoE)	Stakeholder consultation plan
Assumptions	<ul> <li>Availability of Stakeholders.</li> <li>Availability of human resources.</li> <li>Adequate Cooperation of stakeholders.</li> </ul>
Disaggregation of Beneficiaries (where applicable)	N/A
Spatial Transformation (where applicable)	N/A
Calculation Type	Non-cumulative
Reporting Cycle	Annually
Desired Performance	Approved Stakeholder Consultation Plan
Indicator Responsibility	Divisional Executive: NTN

Outcome	Provide an effective oversight of the Long-Term
	Operations.
Indicator Title	RM4 % review of the LTO safety case
Definition	This indicator measures the progress made in review the LTO safety case.
Source/Collection of Data	<ul><li>Resource plan</li><li>LTO Review plan</li></ul>
Method of Calculation	A calculated percentage of activities as per the plan i.e.  Actual Performance Planned performance  The formula is also applicable for calculation of the annual target.
Means of Verification (PoE)	<ul><li>Safety evaluation progress report</li><li>LTO review plan</li></ul>
Assumptions	<ul> <li>Timeous submissions from applicant.</li> <li>Timely resolution of technical issues.</li> <li>Quality of submissions.</li> <li>Sufficient resources.</li> </ul>
Disaggregation of Beneficiaries (where applicable)	N/A
Spatial Transformation (where applicable)	N/A
Calculation Type	Non-cumulative
Reporting Cycle	Quarterly and annually
Desired Performance	100% review of the LTO safety case
Indicator Responsibility	Divisional Executive NPP

Outcome	Provide an independent radio-analytical
	verification capability and capacity 15
Indicator Title	RM1: SANAS Accreditation Gamma Spec:
	(Soil/Sediment/Water) ISO/IEC 17025:2017
Definition	This indicator measures the progress made toward
	the accreditation of specific methods for the NNR
	laboratory by SANAS.
Source/Collection of Data	Laboratory quality manual.
	Laboratory procedures.
	Schedule of accreditation.
	On-site assessment report
Method of Calculation	A calculated percentage of activities as per the plan i.e.  Actual Performance Planned performance The formula is also applicable for calculation of the annual target.
Means of Verification (PoE)	Approved accreditation plan.
	SANAS on-site assessment report report.
	SANAS action plan
Assumptions	<ul> <li>Availability of human and financial resources, including where relevant TSO or external consultants.</li> <li>Availability of tools and equipment.</li> <li>Availability of SANAS team.</li> <li>No external factors such as COVID-19 or public events preventing access to the facilities for the assessments.</li> </ul>
Disaggregation of Beneficiaries (where applicable)	N/A
Spatial Transformation (where	N/A
applicable)	
Calculation Type	Non-cumulative
Reporting Cycle	Quarterly
Desired Performance	
Indicator Responsibility	Divisional Executive: RITS

<sup>&</sup>lt;sup>15</sup> Outcome definition: Implementation of planned activities to be able to attain SANAS accreditation on identified methods i.e. Spec:(Soil/Sediment/Water) ISO/IEC 17025:2017.

Outcome	Ensure the readiness to regulate SMRs.
Indicator Title	RM5: % implementation of the SMR plan
Definition	Implementation of the recommendations of the SMR
	benchmarking report.
Source/Collection of Data	Benchmarking report
	<ul> <li>Approved implementation plan</li> </ul>
Method of Calculation	A calculated percentage of activities as per the plan
	i.e.
	Actual Performance Planned performance
	The formula is also applicable for calculation of the
	annual target.
Means of Verification (PoE)	Approved implementation plan.
	<ul> <li>Implementation progress reports.</li> </ul>
Assumptions	Availability of financial and human resources.
	<ul> <li>Cooperation from internal and external</li> </ul>
	stakeholders.
	<ul> <li>No external disruptive activities or international</li> </ul>
	pandemic effects
Disaggregation of Beneficiaries (where	N/A
applicable)	
Spatial Transformation (where applicable)	N/A
Calculation Type	Cumulative
Parauting Cycle	Output and the
Reporting Cycle	Quarterly
Desired Performance	100% implementation of the recommendations of the
	SMR benchmarking report
Indicator Responsibility	Divisional Executive: RITS

Outcome	Ensure the long-term sustainability of the CNSS.
Indicator Title	RM6: Develop pilot report (Year 1)
Definition	Implementation of pilot plan for CNSS pillars for the first year.
Source/Collection of Data	<ul><li>Approved strategy</li><li>Pilot plan</li></ul>
Method of Calculation	A calculated percentage of activities as per the plan i.e.  Actual Performance Planned performance  The formula is also applicable for calculation of the annual target.
Means of Verification (PoE)	<ul><li>Pilot plan</li><li>Approved pilot report</li></ul>
Assumptions	<ul><li>Availability of funds</li><li>Availability of staff</li><li>Participation of CNSS partners</li></ul>
Disaggregation of Beneficiaries (where applicable)	N/A
Spatial Transformation (where applicable)	N/A
Calculation Type	Non-cumulative
Reporting Cycle	Quarterly
Desired Performance	100% implementation of the pilot plan for CNSS pillars for the first year
Indicator Responsibility	Divisional Executive: RITS

## ANNEXURE A: DETAILED RISK REGISTER



# NATIONAL NUCLEAR REGULATOR TYPE OF ASSESSMENT: STRATEGIC RISK ASSESSMENT FINANCIAL YEAR: 2022/23

#### DATE OF ASSESSMENT: 15 SEPTEMBER 2021

Outcome		RISK ANALY	rsis		Inherent impact rating	Value	Inherent Likelihood rating	Value	Inherent Risk	Current/Existing Controls	Control Adequacy	Control Effectiveness	Residual Impact rating	Value	Residual Likelihood	Value	Resi dual Risk Ratin g	Actions Plans	Action Owner	Action Start Date	Due Date	Risk Owner
	Risk description	Risk category	Root Cause(s) (Contributing factor)	Consequence(s) Description																		
Provide an independent radio-analytical verification capability and capacity	Lack of SANAS accreditation for existing Laboratory methods	Compliance/Regulatory	1. SANAS requirements were updated to align with the new ISO/IEC 17025:2017 standard 2. Laboratory analysis methods are not fully validated	1. Laboratory analysis results may not be defendable legally 2. NNR utilises the services of a licence holder Necsa to analyse samples when accredited results are required. 3. Delays in obtaining results to make timely regulatory decisions. 4. Members of the public potentially exposed to radiation. 5. NNR reputational damage.	Critical	5	Likely	4	20	1. Verification is conducted at other laboratories. 2. NNR laboratory is established, and staff is competent to operate the instruments. 3. About 85% of the samples as per the verification plan are analysed at the NNR laboratory. 4. 70% of methods are validated and verified as per SANAS requirements. 5. Procedures for analysis of the verification samples developed and implemented. 6. The NNR laboratory continues to participate in the inter-laboratory comparison studies to demonstrate our technical competence.	Partially Adequate	Partially Effective	Major	4	Moderate	3	12	1. Updating of accreditati on plan and SANAS corrective action plan 2.Impleme ntation of the activities of the approved accreditati on plan and SANAS corrective action plan	Ms. N Mohlala (Manager : LAB)	1-Apr- 2022	31- Mar- 2023	Ms. L. Mpete (Divisiona I Executive: RITS)

Outcome	Risk description	RISK ANALY Risk category	Root Cause(s) (Contributing factor)	Consequence( s) Description	Inherent impact rating	Value Inherent Likelihood rating	Value	Inherent Risk	Current/Existing Controls  7. Analysis of samples as per	Control Adequacy	Control Effectiveness	Residual Impact rating	Value	Residual Likelihood	Value	Resi dual Risk Ratin g	Actions Plans	Action Owner	Action Start Date	Due Date	Risk Owner
Ensure the readiness to Regulate SMRs	Inadequate Regulatory Standards to regulate and authorise SMR's or new technology	Compliance/Regulatory	1. Current regulatory standards may not fully cover all technical and safety aspects of new technology/des igns 2. Inadequate knowledge in SMR technology, standards and authorisation approaches. 3. Policy uncertainty on SMR technology choices and timelines.	1. Inability to effectively provide regulatory licensing requirements , guidance, position and regulation of SMRs. 2. Ineffective and inefficient implementati on of NNR mandate of protecting of persons, property and the environment against nuclear damage. 3. NNR reputational damage. 4. Potential uncertainties for licensing of SMRs	Critical	5 Likely	4	20	the approved verification plan.  1. NNR Act. 2. Regulations on Safety Standards and Regulatory Practices. 3. Draft Regulations. 4. Small Modular Reactors Action Plans 5. Participation in IAEA SMR Webinars and Committees. 6. Bilateral Cooperation . 7. Established NNR SMR Team.	Partially Adequate	Partially Effective	Moderate	3	Moderate	3	9	1. Update and implement SMR Annual Plan. 2. Progress Report on Gap Analysis on Regulatory Standards as per SMR Annual Plan	Ms. B Mbebe (Manager : RSP)	1-Apr- 2022	31- Mar- 2023	Ms. L. Mpete (Divisiona I Executive: RITS)
Maintain the implementati on of regulatory programmes to assure effective nuclear safety regulation	Inconsistenc y in implementati on of enforcement actions	Core Verification / Enforcement	1. Lack of harmonised approach regarding rating of findings. 2. Lack of harmonised approach in the follow up of occurrences. 3. Insufficient training and guidance provided to	1. Inconsistent application of enforcement actions. 2. NNR reputational damage. 3. Increased pressure from stakeholders	Major	4 Common	5	20	1. Enforcement policy and procedure (PRO-ENF-001 and PRO-ENF-002) 2. All enforcement actions are reviewed by management 3. Inspector qualification process.	Partially Adequate	Partially Effective	Moderate	3	Likely	4	12	1. Develop work instruction for inspectors on implement ation of enforceme nt actions. 2. Finalise the enforceme nt modules of the Inspector	Mr. O Phillips (Division al Executive : NPP) Ms. D Kgomo (Division al Executive : NPP)	1-Apr- 2022	31- Mar- 2023	Mr. O. Phillips (Divisiona I Executive: NPP) Ms. D Kgomo (Divisiona I Executive: NTN)

Outcome		RISK ANALY			Inherent impact rating	Inherent Likelihood rating	Value	Inherent Risk	Current/Existing Controls	Control Adequacy	Control Effectiveness	Residual Impact rating	Value	Residual Likelihood	Value	Resi dual Risk Ratin g	Actions Plans	Action Owner	Action Start Date	Due Date	Risk Owner
	Risk description	Risk category	Root Cause(s) (Contributing factor) inspectors.	Consequence(s) Description													training programm e. 3. Develop and implement the plan for grading matrix realted to non- compliance s. 4. Developme nt of non- compliance database.				
Maintain the implementati on of regulatory programmes to assure effective nuclear safety regulation	Failure to complete compliance assurance activities on time (inspections, environment al verification, investigation, etc.)	Compliance/Regulatory	1. Insufficient staffing due to resignations and unfunded positions. 2. Business/ operational dynamics that impact planned work. 3. Protest action. 4. Prevailing conditions at site may prevent the conduct of planned activities (e.g. safety, security or holder availability). 5. Decisions taken by other regulatory authorities prevent the conduct of planned compliance activities. 6. Impact of Covid-19.	1. Non-delivery or delays in meeting performance objectives. 2Reputational risk. 3. Holder non compliances not identified.	Critical	5 Likely	4	20	1. Annual planning of compliance assurance activities is done in line with available resources. 2. Timeframes included in inspector's performance contracts and monitored by the managers. 3. Defined and documented compliance assurance processes. 4. Quarterly and monthly review and reporting on delivery of compliance assurance activities. 5. Liasing with SAPS as and when needed for affected areas 6. Ongoing review and	Adequate	Effective	Moderate	3	Likely	4	12	1. Fill existing vacancies that are funded as they arise.	Mr. O Phillips (Division al Executive : NPP) Ms. D Kgomo (Division al Executive : NTN)	1-Apr- 2022	31- Mar- 2023	Mr. O. Phillips (Divisiona I Executive: NPP) Ms. D. Kgomo (Divisiona I Executive: NTN)

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Outcome		RISK ANALY	'SIS		Inherent impact rating	Inherent Likelihood rating	Value	Inherent Risk	Current/Existing Controls	Control Adequacy	Control Effectiveness	Residual Impact rating	Value	Residual Likelihood	Value	Resi dual Risk Ratin	Actions Plans	Action Owner	Action Start Date	Due Date	Risk Owner
	Risk description	Risk category	Root Cause(s) (Contributing factor)	Consequence( s) Description												Э					
									adjustment of the work plans in line with organisational and authorisation holder's response to COVID-19.												
Maintain the implementati on of regulatory programmes to assure effective nuclear safety regulation	Failure to complete NISL and SGR review and assessment tasks	Compliance/Regulatory	1.Insuffienct staff 2.Unavailability of TSO specialists 3.Conflicting review and assessment priorities 4.Availability of project leader (NISL) 5. Long term projects	1. Non responsiven ess to applicant needs 2. Delayed reviewed process 3. Negative impact on quality of review and therefore safety 4. Over reliance on project leaders	Modera te	3 Common	5	15	1. Additional resources appointed 2. TSO appointed 3. Quarterly review plan 4. Identify and assign deputy project manager	Partially Adequate	Effective	Moderate	3	Likely	4	12	1.Identify project leader/tea m leaders 2.Appoint project leader/tea m leaders	Mr. O Phillips (Division al Executive : NPP)	1-Apr- 2022	31- Mar- 2023	Mr. O Phillips (Divisiona I Executive: NPP)
Maintain the implementati on of regulatory programmes to assure effective nuclear safety regulation	Failure to complete effective consultations with all relevant external stakeholders on Indoor Radon Regulatory Framework	Strategic	1. Lack of understanding of the significance of regulating indoor radon in South Africa 2. Stakeholders not realising their role on indoor radon control 3. Some key stakeholders do not have any	1. Ineffective engagement s and lack of feedback. 2. Negative impact on the development of indoor radon regulatory framework.	Major	4 Likely	4	16	1.Signed cooperative agreements with some key stakeholders	Inadequate	Ineffective	Major	4	Likely	4	16	1. Initiate meetings involving organisatio n's CEOs / DGs or Executives . 2. Invite relevant stakeholde rs to workshop and meetings. 3. Develop focused	Mr O.J Pule Manager: Contamin ated Sites	1-Apr- 2022	31- Mar- 2023	Ms. D. Kgomo (Divisiona I Executive: NTN)

Outcome		RISK ANALY			Inherent impact rating	Value Inherent Likelihood rating	Value	Inherent Risk	Current/Existing Controls	Control Adequacy	Control Effectiveness	Residual Impact rating	Value	Residual Likelihood	Value	Resi dual Risk Ratin g	Actions Plans	Action Owner	Action Start Date	Due Date	Risk Owner
	Risk description	Risk category	Root Cause(s) (Contributing factor) relationship with the NNR and do not appreciate its mandate 4. Ineffective cooperative agreements (where applicable) 5. Radon project not a priority for external stakeholders	Consequence(s) Description													communic ation providing details on each stakeholde r role on indoor radon regulatory control in South Africa.				
Maintain the implementati on of regulatory programmes to assure effective nuclear safety regulation	Failure to complete reviews and assessment within timelines requested by applicants and authorisation holders	Compliance/Regulatory	Human resource constrains due to unavailability of funds for approved positions	1. Delayed responses to submissions from authorisation holders or applicants 2. Employees suffering burnout 3. Non-delivery poses reputational risk to the NNR	Critical	5 Common	5	25	1. Submissions prioritized in consultation with authorisation holders and applicants following a graded approach 2. Quarterly review plans for all programmes	Inadequate	Ineffective	Major	4	Moderate	3	12	1. Continue to motivate for positions to be filled	Mr. P. Bester (PM: NPP) Mr. P. Mohajane (PM: NORM) Mr. T. Pather (PM: NTWP)	1-Apr- 2022	31- Mar- 2023	Mr. O. Phillips (Divisiona I Executive: NPP) Ms. D Kgomo (Divisiona I Executive: NTN)
Provide an effective oversight of the Long-Term Operations	Delays in processing LTO application	Compliance/Regulatory	1.Unavailability of financial and human resources. 2. COVID-19 related inefficiencies especially dealing with international community. 3. Unavailability of bilateral partners due to own commitments. 4. Difficulty	Inability to effectively regulate LTO for KNPS.     Reputational damage.	Major	4 Common	5	20	1. TSO currently appointed. 2. Existing regulatory framework including the draft TAG. 3. Project and resource plan. 4. Training plan.	Partially Adequate	Partially Effective	Major	4	Moderate	3	12	1. Draftrecom mendation for LTO authorisati on fees. 2. Streamline recruitment process to enable hiring competent individuals. 3. Internal training based on Technical	Mr. O Phillips (Division al Executive : NPP)	1-Apr- 2022	31- Mar- 2023	Mr.O. Phillips (Divisiona I Executive: NPP)

Outcome		RISK ANALY			Inherent impact rating	Inherent Likelihood rating	Value	Inherent Risk	Current/Existing Controls	Control Adequacy	Control Effectiveness	Residual Impact rating	Value	Residual Likelihood	Value	Resi dual Risk Ratin g	Actions Plans	Action Owner	Action Start Date	Due Date	Risk Owner
	Risk description	Risk category	Root Cause(s) (Contributing factor)	Consequence( s) Description																	
			recruiting relevant competence due to scarce skills and internal processes etc.														Assessme nt Guide (TAG) 5. 4. Ensure public engageme nts by Eskom. 5. Collate information from bilateral partners in preparation for review.				
Provide an effective oversight of the Long-Term Operations	Undue pressure to finalise informed regulatory decision for LTOs	Compliance/Regulatory	1. Failure by Eskom to submit the safety case on time. 2. Public resistance to LTO. 3. Failure by Eskom to meet regulatory requirements for the LTO.	1. Delays in finalising the regulatory decisions on LTO. 2. Reputational damage. 3. Inability to review the safety case within the time given. 4. Extended shut down of Koeberg.	Critical	5 Common	5	25	1. Timelines stipulated on the existing Regulatory Framework. 2. Quarterly project meetings with Eskom to track progress. 3. LTO regulatory standards in place. 4. Inspection programme being implemented. 5. Public engagement processes. 6. Eskom LTO dashboard. 7. Regular meetings with Eskom Executive.	Partially Adequate	Partially Effective	Critical	5	Moderate	3	15	1. Develop the Technical Assessme nt Guide. 2. Apprise the Executive Authority on progress made to the project. 3. Monitor Eskom's LTO dashboard.	Mr. O Phillips (Division al Executive : NPP)	1-Apr- 2022	31- Mar- 2023	Mr. O. Phillips (Divisiona I Executive: NPP)

		RISK ANALY	/SIS		Inherent impact	Value Likelihood	Value	Inherent Risk	Current/Existing Controls	Control Adequacy	Control Effectiveness	Residual Impact rating	Value	Residual Likelihood	Value	Resi dual Risk Ratin	Actions Plans	Action Owner	Action Start Date	Due Date	Risk Owner
Outcome	Risk description	Risk category	Root Cause(s) (Contributing	Consequence(	rating	rating										g					
Adequate funding for execution of NNR's mandate	Inability to sustain the NNR financially	Financial	factor)  1. Late approval and gazetting of authorisation fees. 2. Late payment of authorisation fees by authorisation holders. 3. Possible reclassification and surrender of nuclear authorisations. 4. Minimal contribution by government related to regulatory activities.	s) Description  1. Inability to fund regulatory activities.  2. Strategic projects held back.	Critical	5 Likely	4	20	1. Robust debtors collection process both in financial and legal activities. 2. Budget allocation is approved at EXCO to ensure alignment with strategic imperatives and key regulatory activities. 3. Billing in advance. 4. Levy of interest on all overdue debts.	Partially Adequate	Partially Effective	Critical	5	Moderate	3	15	1. Continue to pursue approval of funding model by the DMRE. 2. Intensify financial compliance during compliance assurance activities.	Mr. D Netshivha zwaulu (Chief Financial Officer)	1-Apr- 2022	31- Mar- 2023	Mr. D. Netshivhaz waulu (Chief Financial Officer)
Enhance ICT capabilities to enable business support	Compromise of information and business continuity and inability to operate effectively in a changing environment.	Disaster Recovery / Business Continuity	ICT systems and processes do not support business requirements. ICT capacity to ensure safe and secure continuation of business operations.	1. Leaking or loss of information. 2. Reputational harm. 3. Business continuity negatively impacted 4. Inability to respond to emerging threats and changes in operating environment.	Critical	5 Likely	4	20	1. ICT Strategy. 2. APP and AOP 3. Ongoing training and awareness for employees	Partially Adequate	Partially Effective	Major	4	Moderate	3	12	1. Conduct regular and ongoing environme ntal scans and risk assessmen ts to identify new and emerging threats. 2. Conduct ICT security assessmen ts and tests and implement remediatio n plans to address identified gaps. 3. Develop and implement a business continuity plan which includes	Mr. J Boulton (Manager : ICT)	1-Apr- 2022	31- Mar- 2023	Ms. A. Simon (Divisiona I Executive: CSS)

Outcome		RISK ANALY			Inherent impact rating	Inherent Likelihood rating	Value	Inherent Risk	Current/Existing Controls	Control Adequacy	Control Effectiveness	Residual Impact rating	Value	Residual Likelihood	Value	Resi dual Risk Ratin g	Actions Plans	Action Owner	Action Start Date	Due Date	Risk Owner
	Risk description	Risk category	Root Cause(s) (Contributing factor)	Consequence( s) Description																	
																	regular testing. 4. Implement ICT governance standards and monitor and report on compliance with standards. 5. Implement ICT training and communic ation plan for employees . 6. Develop and implement a training plan for ICT personnel.				
Ensure the long-term sustainability of the CNSS	Inability to leverage relevant strategic partnership	Stakeholder Communication	1. Inadequate partnership agreements (i.e., Obligations for both parties unclearly defined). 2. Lack of involvement of all partners/stake holders in decision making process. 3. Inadequate feedback to primary stakeholders (NNR	1. Ineffective partnerships/collaboration . 2. Reputational damage to either party. 3. Breach of Terms and Conditions of the partnership agreement/s. 4. Lack of return on investment. 5. Existing partners may pull out/potential	Major	4 Likely	4	16	1. MoA's in place. 2. Partnership/coll aboration agreements. 3. Integrated CNSS Sustainability Plan	Partially Adequate	Partially Effective	Major	4	Likely	4	16	1. Develop spokes/pro ject specific agreement s. 2. Implement ation of revised CNSS processes (RRD/TSS/E&T/SPs)	Dr S Nhleko ( Acting Director: CNSS)	1-Apr- 2022	31- Mar- 2023	Ms. L. Mpete (Divisiona I Executive: RITS)

Outcome		RISK ANALY	SIS		Inherent impact rating	Value	Inherent Likelihood rating	Value	Inherent Risk	Current/Existing Controls	Control Adequacy	Control Effectiveness	Residual Impact rating	Value	Residual Salah	Re du Ris Rat	Actions Plans	Action Owner	Action Start Date	Due Date	Risk Owner
	Risk description	Risk category	Root Cause(s) (Contributing factor)	Consequence( s) Description																	
			Programmes) regarding project changes/status	partners may not want to collaborate.																	
Financial sustainability of the CNSS	Failure to sustain CNSS programmes in the long-term	Financial	1. Funding limitation to ensure long term sustainability of the CNSS.	1. Inability to fulfil mandate/ach ieve objectives. 2. Financial loss. 3. Reputational damage. 4. Interruptions of business operations. 5. Failure to implement long-term strategies.	Critical	5	Common	5	25	1. Current allocated NNR budget. 2. Current staff complement. 3. CNSS Strategic Business Plan. 4. Integrated CNSS Sustainability Plan	Partially Adequate	Partially Effective	Major	4	Likely 4	16	1. Implement and report on the interim sustainabili ty strategies for each of the CNSS pillars and revise them as appropriate based on the pilot projects 2. Implement ation of Integrated CNSS Sustainabil ity Plan in consultation with CSS/revie w of Pelekeza report and revise as appropriate based on the pilot projects.	Dr S Nhleko ( Acting Director: CNSS)	1-Apr- 2022	31- Mar- 2023	Ms. L. Mpete (Divisiona I Executive: RITS)
Ensure proactive management of potential litigation	Any possible legal challenges to NNR	Litigation	1. Non- compliance with established processes and legislation.	1. Reputational harm to the NNR. 2. Penalties associated	Critical	5	Likely	4	20	Established regulatory universe.     Monitor and report on compliance to	Adequate	Effective	Moderate	3	Moderate 3	9		Mr F Ndou (Senior Manager: LRC) Ms. F Malashe	2022	31- Mar- 2023	Mr. F. Ndou (Senior Manager: LRC)

Outcome	Risk	RISK ANAL	Root Cause(s)	_	Inherent impact rating	Inherent Likelihoo rating	Value	Inherent Risk	Current/Existing Controls	Control Adequacy	Control Effectiveness	Residual Impact rating	Value	Residual Likelihood	Value	Resi dual Risk Ratin g	Actions Plans	Action Owner	Action Start Date	Due Date	Risk Owner
	description	Risk category	(Contributing factor)  2. Lack of transparency in decision-making. 3. Different interpretation/u nderstanding of legislative requirements.	Consequence(s) Description with non-compliance to legislation.					legislative requirements. 3. Approved internal processes to ensure compliance with legislation. 4. Implementation of the file plan. 5. Classification of information.								and monitor compliance on a quarterly basis. 3. Monitor and report on legislative compliance. 4. Annual refresher training on POPIA training.	(Manager : KQM)			
Enhance stakeholder engagement (internal and external)	Compromise and damage to the reputation of the regulator	Stakeholder Communication	1.Failure to ensure ongoing and continuous improvement to stakeholder engagement processes	1. Stakeholders unaware of NNR regulatory processes and programmes 2. Delays in NNR projects due to lack of stakeholder's cooperation 3. Reputational harm and lack of trust in NNR's regulatory processes.	Modera te	3 Commo	n 5	15	1. Integrated Corporate Communication s & Stakeholder Relationship Management Strategy 2019	Partially Adequate	Partially Effective	Moderate	3	Likely	4	12	1. Develop and implement a relevant 2022-2023 stakeholde r engageme nt plan for internal and external stakeholde rs.	Mr. G Moonsam y (Manager : CSR)	1-Apr- 2022	31- Mar- 2023	Ms. A. Simon (Divisiona I Executive: CSS)
Provision of adequate and safe facilities for the site office	Further project delay due to the demand of increase in fees by the professional service team	Infrastructure	1.The passage of time since the inception of project at which point the professional services team was appointed to date	Delays in construction phase of the project 2.     Professional services team opting out of the contract	Modera te	4 Commo	n 4	16	1. The service level agreement between the NNR and professional services team have adequate provisions to handle the current impasse	Partially Adequate	Partially Effective	Moderate	3	Likely	4	12	1. Appointme nt of a mediator to intervene between parties in terms of the service level agreement	Project Steering Committe e	1-Apr- 2022	31- Mar- 2023	Mr. D Netshivhaz waulu (Chief Financial Officer)

Outcome	Risk	RISK ANAL	Root Cause(s)		Inherent impact rating	Value	Inherent Likelihood rating	Value	Inherent Risk	Current/Existing Controls	Control Adequacy	Control Effectiveness	Residual Impact rating	Value	Residual Likelihood	Value	Resi dual Risk Ratin g	Actions Plans	Action Owner	Action Start Date	Due Date	Risk Owner
	description	Risk category	(Contributing factor)	Consequence( s) Description																		
Inclusion of previously disadvantag ed individuals (PDI's) in economic activities	Lack of capable service providers to deliver required scientific specialised services	Supply Chain Management	1.Constrained nuclear industry in nationally and continentally	1. No response to NNR bids by PDI's cohort	Modera te	4	Common	5	20	1. Fair and transparent Supply Chain Management policy	Partially Adequate	Partially Effective	Moderate	3	Likely	4	12	1. Continuous engageme nt with stakeholde rs in industry events and activities 2. Continuous ly testing the market and setting aside bids for PDI's where market is conducive.	Ms. L. Nkosi (Senior SCM Specialist )	1-Apr- 2022	31- Mar- 2023	Mr. D Netshivhaz waulu (Chief Financial Officer)