

PRESENTATION TO PORTFOLIO COMMITTEE ON MINERAL RESOURCES AND ENERGY

NRWDI 2021-2022 ANNUAL PERFORMANCE PLAN



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- Situational Analysis
- Strategic Alignment and Contribution to Government Priorities
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ABOUT NRWDI



- The National Radioactive Waste Disposal Institute Act No. 53 of 2008 (NRWDIA) became effective on the 1st December 2009.
- NRWDIA established the National Radioactive Waste Disposal Institute (NRWDI) as a wholly owned state entity.
- NRWDI is responsible for discharging an institutional ministerial obligation in terms of Section 1 of the Nuclear Energy Act (Act 46 of 1999) relating to the disposal of radioactive waste on a national basis.
- The governance of NRWDI is entrusted to a Board of Directors.
- Board is appointed in terms of the prescripts of NRWDIA.
- Minister of Mineral Resources and Energy is the Executive Authority responsible for NRWDI.

MANDATE OF NRWDI

NRWDI draws its mandate from:

- 1) Section 24(b) of the Constitution (Act 108 of 1996)
- 2) Section 5 of National Radioactive Waste Disposal Institution Act (Act 53 of 2008)

CONSTITUTIONAL MANDATE OF NRWDI

According to Section 24(b) of the Constitution of the Republic of South: 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; and
- iii. Secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.

FUNCTIONAL MANDATE OF NRWDI

According to Section 5 of the NRWDI Act, the functional mandate of NRWDI is:

- Long-term management and disposal of radioactive waste on a national basis;
- Operation of the Vaalputs national radioactive waste disposal facility;
- Develop criteria for accepting and disposing radioactive waste;
- Manage, operate and monitor operational radioactive waste disposal facilities;
- Site, design and construct new disposal and related facilities as required;
- Define and conduct research and development aimed at finding solutions for longterm radioactive waste management and disposal;
- Provide information on all aspects of radioactive waste disposal to the public in general; and
- Maintain a national radioactive waste database.

KEY LEGISLATION THAT GOVERNS RADIOACTIVE WASTE DISPOSAL

The following key Acts govern the management and disposal of radioactive waste:

- Nuclear Energy Act, (No 46 of 1999);
- National Nuclear Regulator Act, (No 47 of 1999);
- National Radioactive Waste Disposal Institute Act, (No 53 of 2008);
- National Environmental Management Act, (No 107 of 1998);
- Hazardous Substances Act, (No 15 of 1973);
- National Water Act, (No 36 of 1998);
- Disaster Management Act, (No 57 of 2002); and
- Dumping at Sea Control Act, (No. 73 of 1980)



VISION

To be a world-class radioactive waste disposal organisation.

MISSION

To provide environmentally safe and technologically innovative radioactive waste disposal solutions for the benefit of current and future generations.

VALUES

N Nurturing

We will make the well-being of people and the environment, priority.

R Respect

We will respect all and obey the laws and legislation that govern our country and regulates our industry.

W Work-Life Balance

We are committed to the creation of a culture that supports the achievement of both life and work.

D Dedication

We will demonstrate passion, commitment and care in all that we do being fully aware of the impact that our actions may have on current and future generations.

Integrity

We will conduct ourselves with openness, honesty and respect for all our stakeholders.

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National Radioactive Waste Disposal Institute Organisational Structure



SITUATIONAL ANALYSIS



SITUATIONAL ANALYSIS

Strengths Weaknesses	Ses
 NRWDI mandate is legislated and unambiguous. Suitably experienced and qualified staff. World-class low-level waste disposal facility, Vaalputs, which is in operation for more than 30 years. Board and management are committed to open, transparent and accountable management of NRWDI. International partnerships and connectedness. Clean audits as part of good reputation. Communication with stakeh inadequate. Loss of institutional knowle Loss of institutional knowle Lack of brand identity and in place. Internal processes and syste in place. Change management proces Vaalputs functional shift need strengthened. 	akeholders is owledge. nd image. systems not completely rocesses for the t needs to be

SITUATIONAL ANALYSIS

Opportunities	Threats
 Income generating opportunities by rendering advisory services to the AU and SADC countries on radioactive waste management and disposal. Position NRWDI as Centre of Excellence in radioactive waste management and disposal. 	 Negative public perceptions and sentiment about nuclear energy and radioactive waste. Delay in obtaining the Vaalputs Nuclear Installation License and concluding the Vaalputs functional shift.
Build strong co-operative partnerships with IAEA, global and local waste management organisations to enhance and complement NRWDI's competencies.	 Competition for the limited pool of suitably experienced and qualified staff in the nuclear energy sector Cyber and Information security challenges.
Mature technologies exist for off-site dry storage (up to 100 years) for spent nuclear fuel.	 Impact of Covid-19 pandemic. Financial Sustainability.

STRATEGIC ALIGNMENT



NRWDI's CONTRIBUTION TO GOVERNMENT PRIORITIES

Medium Term Strategic Framework	National Development Plan
 Priority 1: Economic Transformation and Job Creation Priority 2: Education, Skills and Health Priority 6: A Capable, Ethical and Developmental State Priority 7: A better Africa and World 	 Chapter 3, 'Economy and employment', sets out the achievement for full employment, decent work and sustainable livelihoods Chapter 13, 'Building a Capable State', sets out a vision of the transformative and developmental role of the state. Chapter 14, 'Promoting accountability and fighting corruption', sets out a vision which has zero tolerance for corruption.
Cross Cutting Focus Areas	
• Women	
• Youth	
People with Disabilities	

KEY STRATEGIC PROJECTS



OFF-SITE ABOVEGROUND STORAGE FACILITY FOR SPENT FUEL

Procurement of off-site aboveground Centralised Interim Storage Facility (CISF) for the long-term storage of spent fuel by 2024.



OFF-SITE ABOVEGROUND STORAGE FACILITY FOR SPENT FUEL

- NRWDI will use this critical and national infrastructure project as a catalyst and an enabler to forge durable partnerships and social compacts between government, business, labour, communities and civil society that will result in job creation, skills development, inclusive growth and economic transformation in order to give impetus to the creation of a capable, ethical and developmental state that is at the cutting-edge of the Fourth Industrial Revolution.
- Prefeasibility Study has been finalized, which concluded that the CISF project is highly feasible for the following reasons:
 - The demand or need for the project is justified.
 - The national radioactive waste management policy promotes the CISF establishment.
 - A robust regulatory framework for siting, licensing and construction of the CISF exists.
 - Expertise to deliver the project exist locally and internationally.
 - CISF is not first-of-a-kind and can therefore be modelled on the existing ones in the world.

SUPPORT KOEBERG NUCLEAR POWER PLANT LIFETIME EXTENSION

- Koeberg Nuclear Power Plant lifetime will be extended by another 20 years to 2045.
- Replacement of key critical reactor components is necessary and will result in disposal of large nuclear components such as Original Steam Generators (OSGs).
- NRWDI to develop new disposal solutions for these waste categories.



SUPPORT KOEBERG NUCLEAR POWER PLANT LIFETIME EXTENSION



ORIGINAL STEAM GENERATOR

REACTOR PRESSURE VESSEL HEAD

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2021/22 ANNUAL PERFORMANCE PLAN



PROGRAMME 1: ADMINISTRATION

The purpose of the programme is to ensure that NRWDI is operationally efficient, cost-effective, properly managed and complies with good corporate governance principles.

Programme 1 makes a contribution to the MTSF's priority 6 which is "Capable, Ethical and Developmental State" by contributing to the following:

- A functional, efficient and integrated government
- A professional, meritocratic and ethical administration
- A social compact and engagement with key stakeholders
- Mainstreaming of gender, empowerment of youth and persons with disability.

PROGRAMME 1: ADMINISTRATION

The core outcome is achieved through the provision of key corporate functions under the following sub-programmes:

- Strategic planning, monitoring and evaluation and reporting;
- Risk Management;
- Internal Audit;
- Board Secretariat;
- Communications and stakeholder;
- Finance and Supply Chain;
- Corporate Services (Human Capital Management; Information and Communications Technology Management; Legal Services Management; and General Administration and Facilities Management).

PERFORMANCE INFORMATION: PROGRAMME 1

				Annual targets			
Outcome Outputs		Output indicators	Estimated performance		MTEF period		
outcome	outputs		2020/21	2021/22	2022/23	2023/24	
	Implemented finance	Percentage	80%	80%	80%	80%	
	strategic plan	implementation of 5-	implementation of	implementation of	implementation of	implementation of	
		year finance	year 1 plan of	year 2 plan of	year 3 plan of	year 4 plan of	
		strategic plan	finance strategic	finance strategic	finance strategic	finance strategic	
Effective Efficient			plan	plan	plan	plan	
and Posponsivo	Implemented human	Percentage	80%	80%	80%	80%	
	capital strategic plan	implementation of 5-	implementation of	implementation of	implementation of	implementation of	
NRVVDI		year human capital	year 1 plan of human	year 2 plan of human	year 3 plan of human	year 4 plan of human	
		strategic plan	capital strategic plan	capital strategic plan	capital strategic plan	capital strategic plan	
	Unqualified Audit	Unqualified audit	Unqualified audit	Unqualified audit	Unqualified audit	Unqualified audit	
	Report	report	report	report	report	report	

PROGRAMME 2: RADIOACTIVE WASTE DISPOSAL OPERATIONS

The purpose of the program is to provide radioactive waste disposal and related services on a national basis by managing and operating various waste disposal and related nuclear facilities such as the Vaalputs National Disposal Facility, to ensure the safe disposal of all classes of radioactive waste in order to protect humans and the environment.

The following activities are inherently part of the Radioactive Waste Operations Division:

- Operate the national low level waste repository at Vaalputs;
- Manage, operate and monitor operational radioactive waste disposal facilities including related predisposal management of radioactive waste on disposal sites;
- Manage ownerless radioactive waste on behalf of the Government, including the development of radioactive waste management plans for such waste;
- Provide information on all aspects of radioactive waste management to the public living around radioactive waste disposal facilities and to the public in general; and
- Maintain the Vaalputs Waste Disposal Inventory Database and submit annually a report to the NNR relating to waste inventory disposed of at Vaalputs.

Programme 2 makes a contribution to two of the MTSF priorities namely priority 1 which is "Economic Transformation and Job Creation" and Priority 6 " A capable , ethical and developmental state". NRWDI is currently establishing new waste disposal and related infrastructure that will create and sustain more decent jobs.

PERFORMANCE INFORMATION: PROGRAMME 2

			Annual targets				
Outcome		Output indicators	Estimated performance		MTEF period		
outcome	Cutputs	output maleators	2020/21	2021/22	2022/23	2023/24	
Safe disposal of all classes of radioactive waste	All radioactive waste classes disposed P fo su P fo pa re ge	Percentage compliance rate for annual SHEQ audit for disposal facilities on Vaalputs site	80%	80%	80%	80%	
		Number of Public Safety Information Forum (PSIF) meetings held with communities surrounding Vaalputs	2	4	4	4	
		Percentage acceptance rate for the disposal of waste packages received from waste generators for disposal	100%	100%	100%	100%	

PROGRAMME 3: SCIENCE, ENGINEERING & TECHNOLOGY

The purpose of the programme is to develop and implement technologies for all classes of radioactive waste that currently do not have disposal and related infrastructure such as the infrastructure for the safe storage and disposal of spent nuclear fuel or high level radioactive waste and long lived intermediate level waste on a national basis.

The following activities are inherently part of the Science, Engineering and Technology Division:

- Investigate the need for any new radioactive waste disposal facilities and to site, design and construct new facilities as required;
- Define and conduct research and development aimed at finding solutions for long-term radioactive waste management; and
- Maintain a national radioactive waste database and publish a report on the inventory and location of all
 radioactive waste in the Republic at a frequency determined by the Board.

Programme 3 makes a contribution to two of the MTSF priorities namely: Priority 1 which is Economic Transformation and Job Creation" and Priority 6 " A capable , ethical and developmental state" NRWDI is currently establishing new waste disposal and related infrastructure that will create and sustain more decent jobs.

PERFORMANCE INFORMATION: PROGRAMME 3

			Annual Targets			
Outcome	Outputs	Output Indicators	Estimated Performance	MTEF Period		
			2020/21	2021/22	2022/23	2023/24
Centralised storage of spent nuclear fuel	CISF established	Percentage of CISF project plan implemented	20% CISF project plan implemented	40% CISF project plan implemented	60% CISF project plan implemented	80% CISF project plan implemented

PROGRAMME 4: RADIOACTIVE WASTE COMPLIANCE MANAGEMENT

The purpose of the programme is to ensure that NRWDI's core mandate is executed in compliance with quality, health, safety, environmental and nuclear licensing regulatory requirements, relevant international standards and best practices. The programme also seeks to provide management systems and resources to discharge the obligations associated with holding a nuclear authorisation.

The following activities are inherently part of the Radioactive Waste Compliance Management Division:

- Implementation of institutional control over closed repositories, including radiological monitoring and maintenance as appropriate;
- Assessing and inspecting the acceptability of radioactive waste for disposal and issuing of radioactive waste disposal certificates; and
- Developing criteria for accepting and disposing radioactive waste in compliance with applicable regulatory safety requirements and any other technical and operational requirements.

Programme 4 makes a contribution to one priority of the MTSF namely Priority 6 which is "Capable, Ethical and Developmental State."

PERFORMANCE INFORMATION: PROGRAMME 4

			Annual targets				
Outcome	Outputs	Output indicators	Estimated performance		MTEF period		
			2020/21	2021/22	2022/23	2023/24	
Compliance with the applicable statutory requirements.	Management System requirements implemented Management System requirements implemented	Percentage implementation of the Radiation Protection Program for Vaalputs Percentage implementation of a Quality Management System for NRWDI that is ISO 9001 compliant Percentage implementation of an ISO compliant SHE Management System for NRWDI	80% of annual project plan for implementation of the Radiation Protection Program executed 80% of annual project plan for implementation of ISO 9001 compliant Quality Management System executed 80% of annual project plan for implementation of ISO compliant SHE Management System executed	80% of annual project plan for implementation of the Radiation Protection Program executed 80% of annual project plan for implementation of ISO 9001 compliant Quality Management System executed 80% of annual project plan for implementation of ISO compliant SHE Management System executed	80% of annual project plan for implementation of the Radiation Protection Program executed 80% of annual project plan for implementation of ISO 9001 compliant Quality Management System executed 80% of annual project plan for implementation of ISO compliant SHE Management System executed	80% of annual project plan for implementation of the Radiation Protection Program executed 80% of annual project plan for implementation of ISO 9001 compliant Quality Management System executed 80% of annual project plan for implementation of ISO compliant SHE Management System executed	

BUDGET FY 2021/22- FY 2023/24



BUDGET FY 2021/22- FY 2023/24

Revenue By Category	2021/22 Budget	2022/23 Budget	2023/24 Budget	MTEF Total	Ave %age over MTEF
	R 000	R 000	R 000	R 000	
Interest	1,725	1,725	1,725	5,175	3%
Transfers received	49,166	50,304	50,486	149,956	97%
Total revenue	50,891	52,029	52,211	155,131	100%

BUDGET TRENDS AND ANALYSIS: REVENUE

- The revenue over the MTEF will increase from R50.9 million in 2021/22 to R52.2 million in 2023/24.
- This is an increase of R1.3 million or 2.6% over the MTEF.
- The NRWDI will derive its revenue from transfer payments received from government allocations. This allocation is expected to increase below inflation from R49.166 million in 2021/22 to R50.486 million in 2023/24.
- On obtaining the Vaalputs Nuclear Installation Licence, NRWDI will also generate revenue in the form of waste disposal fees from radioactive waste generators, in particular Necsa and Eskom. This will be used for the purpose of the Vaalputs low level waste disposal function.
- Funding to be used mainly for infrastructure projects will, over the long term, be obtained from the Radioactive Waste Management Fund, where-in fees will be raised and collected in line with the polluter-pays-principle.

BUDGET FY 2021/22- FY 2023/24

Expenditure By Category (Excl. Vaalputs)	2021/22 Budget	2022/23 Budget	2023/24 Budget	MTEF Total	Ave %age over MTFF
	R 000	R 000	R 000	R 000	
Compensation of Employees	41,240	42,448	43,177	126,865	82%
Goods and Services	8,948	8,877	8,331	26,157	17%
Depreciation	703	703	707	2,109	1%
Total Expenditure	50,891	52,029	52,211	155,131	100%

- The expenditure of NRWDI (excluding the Vaalputs operations) is expected to increase from R50.891 million in 2021/22 to R52.211 million in 2023/24.
- Compensation of Employees contributes 82% of the total budget, whilst Good and Services contributes 17% and Depreciation contributes 1%.
- The NRWDI MTEF budget currently excludes the Vaalputs operations as this function is currently performed by Necsa, and will be transferred to NRWDI upon the obtaining of the nuclear installation licence.
- The majority of NRWDI's expenditure will be associated with the Vaalputs functional shift, Vaalputs Nuclear Installation License, setting up of internal processes and systems, research and development activities.
- The number of personnel inclusive of the 19 Vaalputs staff is 51, and this is expected to remain constant over the medium term.

Expenditure By Category (Incl. Vaalputs)	2021/22 Budget	2022/23 Budget	2023/24 Budget	MTEF Total	Ave %age over MTFF
	R 000	R 000	R 000	R 000	
Compensation of Employees	49,327	50,858	51,924	152,109	57%
Goods and Services	36,363	37,390	37,983	111,736	42%
Depreciation	1,201	1,221	1,242	3,664	1%
Total Expenditure	89,891	89,469	91,149	267,509	100%

The inclusion of the Vaalputs operations budget in the NRWDI MTEF budget allocations results in the consolidated COE budget decreasing by 25% (from 82% to 57%) and the Good and Services budget increasing by 25% (from 17% to 42%).

Expenditure By Programme	2021/22 Budget	2022/23 Budget	2023/24 Budget	MTEF Total	Ave %age
(Excl. Vaalputs)	R 000	R 000	R 000	R 000	over MTEF
Administration	34,050	34,695	35,105	103,850	67%
Radwaste Operations	2,797	2,875	2,833	8,505	5%
Science, Engineering & Technology	5,272	5,428	5,360	16,060	10%
Radwaste Compliance	8,772	9,031	8,913	26,716	17%
Total Expenditure	50,891	52,029	52,211	155,131	100%

Expenditure By Programme	2021/22 Budget	2022/23 Budget	2023/24 Budget	MTEF Total	Ave %age over
(Incl. Vaalputs)	R 000	R 000	R 000	R 000	MTEF
Administration	34,050	34,695	35,105	103,850	39%
Radwaste Operations	38,797	40,315	41,771	120,883	45%
Science, Engineering & Technology	5,272	5,428	5,360	16,060	6%
Radwaste Compliance	8,772	9,031	8,913	26,716	10%
Total Expenditure	86,891	89,469	91,149	267,509	100%

The inclusion of the Vaalputs operations budget in the NRWDI MTEF budget allocations also results in a decrease in the Administration programme budget 28% (from 67% to 39%), and an increase in the core business budget by 28% (from 33% to 61%)

CONCLUDING REMARKS

- An institutionalised culture of accountability, trust, honesty and responsibility prevails in NRWDI, demonstrating a resilient commitment towards good governance, prudent financial management, operational excellence and leadership based on the highest ethical and moral standards.
- The long-term sustainability of NRWDI, however, remains a risk for NRWDI. With the competing priorities faced by NRWDI and the need for delivery of its mandate, the funding over the MTEF cycle is inadequate to cover both the operational and project related costs.
- NRWDI will never compromise on safety and security, taking full accountability for our social and environmental responsibilities, always seeking value for money and actively engage with stakeholders in an open, transparent and respectful manner.
- NRWDI remains totally committed to fulfilling the vast expectations of South Africans that radioactive waste can be safely managed in a manner that meets or exceeds all applicable regulatory standards and requirements for protecting the health, safety and security of our people and the environment, both now and in the future.



THANK YOU.



www.nrwdi.org.za



ANY QUESTIONS?