



***NATIONAL NUCLEAR REGULATOR  
STRATEGY PLAN AND BUDGET FOR 2009 /2012***

**TABLE OF CONTENTS**

<b>I.</b>	<b>EXECUTIVE SUMMARY FROM THE CHIEF EXECUTIVE OFFICER.....</b>	<b>3</b>
<b>II.</b>	<b>NNR OVERVIEW.....</b>	<b>5</b>
	A. <i>The Mandate of the NNR.....</i>	5
	B. <i>Vision.....</i>	6
	C. <i>Mission Statement.....</i>	6
	D. <i>Core Values.....</i>	7
	E. <i>NNR Structure.....</i>	8
	F. <i>Value Chain.....</i>	9
<b>III.</b>	<b>SITUATIONAL ASSESSMENT.....</b>	<b>10</b>
	A. <i>EXTERNAL ENVIRONMENT.....</i>	10
	1. <i>Key Policy Developments.....</i>	10
	2. <i>Population development around nuclear installations.....</i>	12
	3. <i>Stakeholder survey outcomes.....</i>	12
	4. <i>Implications of the stakeholder survey outcomes.....</i>	13
	B. <i>INTERNAL ENVIRONMENT.....</i>	14
	1. <i>The NNR Capacity Assessment.....</i>	14
	2. <i>Corporate Governance.....</i>	15
	3. <i>Internal Business Processes.....</i>	16
<b>IV.</b>	<b>STRATEGIC DIRECTION.....</b>	<b>17</b>
	A. <i>Positioning of the NNR.....</i>	17
	B. <i>Key priorities of MTEF period.....</i>	20
	C. <i>Strategic Risks identified in relation to strategic objectives.....</i>	21
	D. <i>Balanced Scorecard.....</i>	23
<b>V.</b>	<b>COMPLIANCE TO REGULATIONS.....</b>	<b>31</b>
	A. <i>Submission to the Minister of the DME in respect of the Regulations and Notices under the NNR Act.....</i>	31
<b>VI.</b>	<b>IMPLEMENTATION PLANNING.....</b>	<b>34</b>
	A. <i>Implementation plan.....</i>	35
<b>VII.</b>	<b>RESOURCE PLAN.....</b>	<b>42</b>
	A. <i>Human resource plan.....</i>	42
	B. <i>Budget plan.....</i>	43
<b>VIII.</b>	<b>STRATEGY PLAN REVIEW AND APPROVAL.....</b>	<b>50</b>
	A. <i>Standard Glossary of Terms.....</i>	50
<b>IX.</b>	<b>APPENDICES.....</b>	<b>51</b>
	A. <i>Abbreviations.....</i>	51



## **I. EXECUTIVE SUMMARY FROM THE CHIEF EXECUTIVE OFFICER**

The National Nuclear Regulator (*NNR*) is mandated as the competent authority for nuclear regulation in South Africa, in terms of the National Nuclear Regulator Act, 1999 (*Act 47 of 1999*), to provide for the protection of persons (*the public and workers*), property and the environment against nuclear damage.

It is a pleasure to present this strategic plan which details *NNR* strategic trajectory for the next 3 years commencing in 2009. This strategic plan represents the commitment of the *NNR* towards the realisation of its mandate.

While the strategic plan for 2009-2012 spans over 3 years, it is necessary for *NNR* to conduct annual strategic reviews to assess its ability to respond to a changing external environment. It is also necessary to conduct this annual review to ensure that the *NNR* processes are efficient and effective in achieving its mandate. This strategic plan supports and builds on the strategic planning work that has been done in the recent past.

The *NNR* embarked on a strategic planning process in the course of this year which involved the following:

- An environmental analysis relating to key trends within the nuclear industry as well as the South African regulatory environment,
- A review of the current *NNR* strategic plan and other *NNR* relevant documentation, and
- A detailed internal analysis of the *NNR*.

The environmental scan and the benchmarking revealed that within the context of a potential resurgence in demand for nuclear power, as well as an increase in uranium mining - the challenge to effectively regulate the nuclear industry will intensify significantly in the medium to long-term. Internationally, there is an increasing public expectation regarding regulatory transparency and openness, as well as participation in decision making. Thus, the *NNR* will need to improve its ability to effectively engage its key stakeholders and enhance public confidence in its regulatory processes.

Further, this strategic plan takes into account the recently released Nuclear Energy Policy and Strategy for the Republic of South Africa and looks at the *NNR*'s readiness to respond to this new policy direction. This will involve taking steps to review *NNR*'s current regulatory frameworks, address internal capacity constraints and re-engineer business processes in order to effectively respond to the challenges that have been identified.

The purpose of this strategic plan is to clearly set out how the *NNR* will effectively respond to these challenges in a structured and well coordinated manner, taking care to retain its current strengths, pursuing relevant opportunities while addressing its weaknesses and avoiding potential threats. The plan sets out the critical success factors that will affect the organisation's strategic trajectory and identifies the strategic objectives, goals and initiatives the *NNR* will need to focus on over the next three years in order to realise its vision and mandate.

Four key strategic focus areas have been identified to ensure achievement of the mandate of the National Nuclear Regulator. Within each strategic focus area, a number of broad goals and strategic objectives have been identified. These objectives and goals build on existing initiatives



within the NNR and include newly identified initiatives that have been developed in response to the environmental changes that have been identified, including the new policy direction of the country. The four focus areas are:

- Safety and Regulation
- Stakeholder Management
- Internal Business Processes
- Human Resources

The NNR goals can be mapped directly onto these strategic focus areas:

- Delivery of mandate and effective utilisation of resources
- Enhance regulatory enforcement regime
- Strengthen regulatory oversight of nuclear security
- Maintain co-operative governance
- Improve local reputation and stakeholder management
- Increase regional and international involvement
- Maintain international reputation
- Promote good governance
- Streamline internal processes
- Improve infrastructure
- Enhance effective communication
- Enhance expertise of staff
- Ensure adequate supply of skills
- Foster growth and retention of talent

The successful achievement of these broad goals represents success for the NNR in achieving its vision and fulfilling its mandate. The measures and targets that will indicate success and objectively indicate the achievement on its goals are detailed in this document; as is the planned road map and implementation plan.

The process followed in developing this strategic plan is both comprehensive and collaborative, involving detailed examination of all the key areas the NNR. The outcome is a plan which the NNR have a high level of commitment to implementing as we strive to continue to add value for all its stakeholders and delivering on its vision and mandate.



## II. NNR OVERVIEW

The section outlines the overview of the National Nuclear Regulator.

### A. The Mandate of the NNR

The National Nuclear Regulator (NNR) is mandated to provide for the protection of persons (the public and workers), property and the environment against nuclear damage as the competent authority for nuclear regulation in South Africa through the National Nuclear Regulator Act, Act No 47 of 1999.

The NNR's regulatory practices include prescriptive and descriptive approaches, as appropriate, and focuses on holders of authorisations instituting appropriate processes for compliance with regulatory requirements.

Section 5 of the NNR Act provides that the objectives of the Regulator are to:

1.	Provide for the protection of persons, property and the environment against nuclear damage through the establishment of safety standards and regulatory practices;
2.	Exercise regulatory control related to safety over the siting, design, construction, operation, manufacture of component parts, and decontamination, decommissioning and closure of nuclear installations;
3.	Exercise regulatory control over other actions, to which this Act applies, through the granting of nuclear authorisations;
4.	Provide assurance of compliance with the conditions of nuclear authorisations through the implementation of a system of compliance inspections;
5.	Fulfil national obligations in respect of international legal instruments concerning nuclear safety;
6.	Ensure that provisions for nuclear emergency planning are in place.

Furthermore, the Act stipulates that the functions of the Regulator are to:

1.	Grant or amend nuclear authorisations;
2.	Employ assets and deploy resources (hire, purchase, acquire);
3.	Collaborate with other institutions for the collection and dissemination of scientific and technical information regarding nuclear energy;



4.	Collaborate with other institutions regarding provision of instruction for or training of persons required by the NNR;
5.	Provide financial and other assistance for the training of people to enable the NNR to perform its functions;
6	Insure itself against loss, damage, risk or liability;
7.	Advise the Minister on: a. Conditions that may cause nuclear damage b. Items the Minister has referred to the NNR c. What the NNR thinks necessary;
8.	Act as national competent Authority in connection with International Atomic Energy Agency's Regulations;
9.	Conclude contracts to enhance the value of the services rendered by the NNR;
10.	Prepare & submit annual report on the health & safety of workers, the public and environment associated with all sites.

## B. Vision

The vision statement describes the future outlook” of the National Nuclear Regulator if it is to achieve its ultimate aims.

**To be a leading authority for the regulation of the safe use and handling of nuclear and radioactive materials.**

## C. Mission Statement

The mission statement describes the overall purpose of National Nuclear Regulator.

**To provide and maintain an effective and efficient national regulatory framework for the protection of persons, property and the environment against nuclear damage through:**

- **Application of safety standards and regulatory practices and;**
- **Implementation of human resources and transformation practices best suited to the nuclear regulatory needs of South Africa.**



## D. Core Values

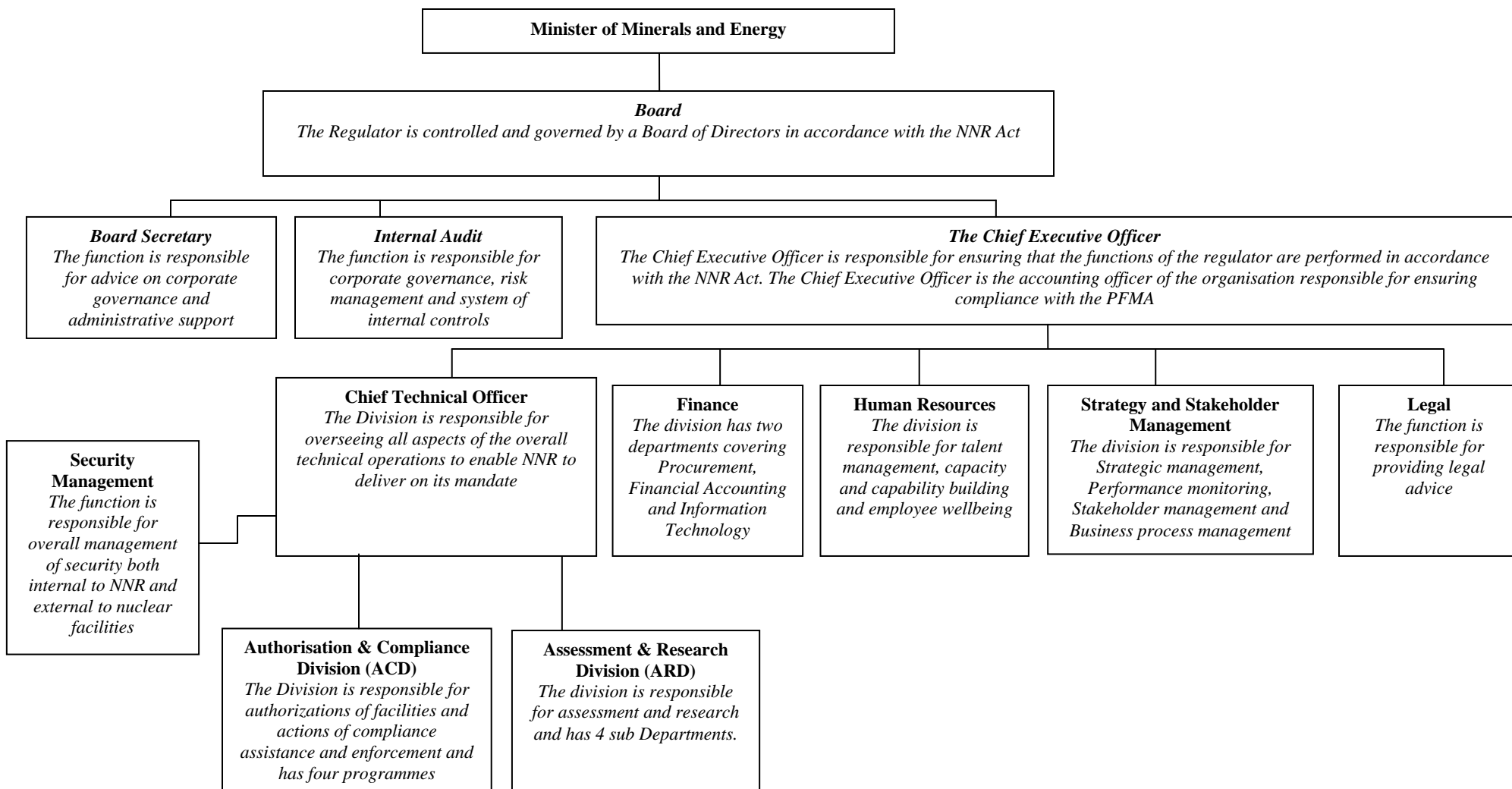
The NNR's core values are:

<b>Value</b>	<b>Description</b>
<b>Excellence</b>	In all aspects of service delivery
<b>Ethical Conduct</b>	Evidenced by integrity, valuing cultural diversity, honesty, compassion, trustworthiness, respect and fairness
<b>Professionalism</b>	Displayed through commitment, questioning attitude, dedication, responsibility, accountability and being proactive
<b>Credibility</b>	commanded through consistency, objectivity, impartiality, confidence, transparency, competence and knowledge base



### E. NNR Structure

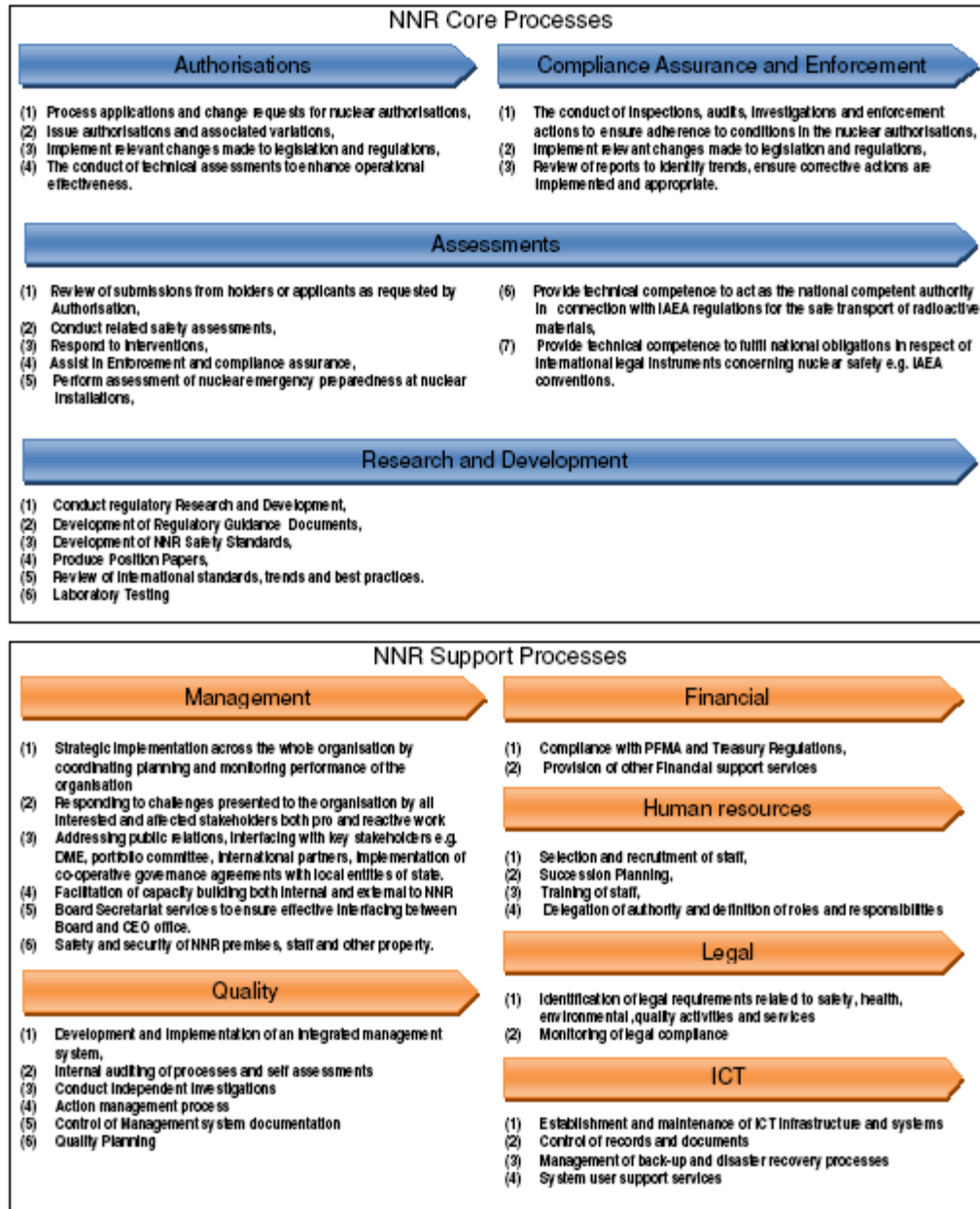
Below is the National Nuclear Organisational structure as approved by the NNR Board in 2008:





## F. Value Chain

In order to fulfill its mission, the NNR undertakes the following key core business and support services activities:





### **III. SITUATIONAL ASSESSMENT**

The understanding of the current situation was used to identify the approaches needed to drive success into the future. A full understanding of the current situation was included in the workshop pre-reading and included an analysis of several areas:

- A. Internal Views
- B. Stakeholder Views
- C. (*Performance on*) Recent Goals and Initiatives
- D. Industry Trends
- E. International Best Practice

A situational assessment of the current environment was undertaken which took into consideration the pre-workshop preparation around Key Industry Trends that may have an impact on the NNR.

#### **A. EXTERNAL ENVIRONMENT**

##### **1. Key Policy Developments**

The nuclear landscape in South Africa is undergoing significant changes, reflecting the developments in the global nuclear industry, in particular a growing international trend towards a resurgence of nuclear power.

In August 2008, the Minister of Minerals and Energy published the Nuclear Energy Policy and Strategy, pronouncing greater use of nuclear in South Africa. Furthermore the 2007/8 South African yearbook quotes an expectation of 10 000MW nuclear energy in the next 10 years.

In response to these policy pronouncements, government departments and entities within the nuclear sector have developed programmes to match the above expectations.

The above implies that there will be expansion of scope for the National Nuclear Regulator.

##### **1.1. Eskom new build programme**

Based on the government pronouncements relating to greater use of nuclear energy in South Africa linked to the constrained electricity supply capacity, Eskom plans an expansion of nuclear reactors for the generation of electricity. The current plans linked to the Nuclear Energy Policy and Strategy envisage an increase of 10 000 MW of electrical power coming from nuclear energy over a period of 10 years. This represents roughly the equivalent of 5 plants the size of the current Koeberg Nuclear Power Station and will therefore require the regulator to proactively ready itself to licence at least 5 nuclear power plants.

Eskom has officially notified NNR of their investigation/feasibility study on the choice of technology for new nuclear generating capacity, in addition to that to be supplied by the Pebble Bed Modular Reactor Programme (PBMR). Within this investigation Eskom has requested the NNR to



develop regulatory criteria for siting of new nuclear power plants which would assist Eskom in the sites selection process, and in the development of Site Safety Reports for candidate sites.

Although Eskom have not formerly indicated the timeframes or the selected sites for the new plants, the NNR is aware that the sites will be selected from Thyspunt or Bantamsklip on the south coast, or Duynefontein, Brazil or Schulpfontein on the west coast. With regard to potential applications for site licenses the NNR has developed a draft regulation on siting of nuclear installations. The main focus of the assessment work in this regard relates to identification of the external hazards (seismic, air crash, flooding etc), establishment of emergency planning zones based on risk analysis, and a prior epidemiological survey. As regards the construction and operation phases, the focus of work will be on the reviews of the plant design, operating and accident procedures, and procurement, manufacturing, construction, testing, commissioning, operation and eventual decommissioning. The NNR has developed the “NNR Strategy For The Licensing Of New Light Water Nuclear Power Reactors” (NNR-SD-0001) to address the full scope of activities from siting to plant operation.

### **1.2. High-level Waste Management in South Africa**

The Radioactive Waste Management and Strategy defines the respective roles of government, regulators, waste generators, and operators regarding waste management. It also sets the stage for developing institutional and financial arrangements to implement long term waste management solutions that are safe, environmentally sound, and effective. Above ground storage of spent fuel is finite and not sustainable in the long term.

Additionally, government will soon establish a National Radioactive Waste Management Institute to coordinate all waste management activities including management options for high level waste.

### **1.3. Uranium mining activities for the next few decades**

The Nuclear Energy Policy and Strategy also calls for greater coordination of nuclear energy research and development, development of uranium conversion capability as part of the national uranium beneficiation strategy, establishment of uranium enrichment capability, establishment of a nuclear fuel fabrication capability, and investigating the feasibility of a national spent fuel reprocessing capability.

The uranium beneficiation strategy has led to an increased interest in uranium mining. The high uranium price has also made the mining of uranium attractive to a number of global players. Activities associated with uranium exploration have consequently been on the increase as investors poise themselves to take advantage of the resurgence in the economics of uranium mining.

In tandem, the NNR has received several applications for uranium exploration. Incorporating this trend into the planning horizon for the NNR, and taking into account that just in the last financial year, nineteen new Certificates of Registrations (CoRs) were issued; there is an urgent need for additional staff members in this area.

### **Implications of the key policy developments changes**

These changes in the nuclear landscape pose the following significant implications:

- The need for stronger regulation and legislation



- The need to review and update the NNR regulatory standards, policies and practices to ensure that they are effective and efficient to deal with the envisaged scope of work
- The need to adequately staff the NNR to respond to the envisaged changes in the nuclear landscape. These include projects such as:
  - (i) Eskom new build programme
  - (ii) Pebble Bed Modular Reactor Programme
  - (iii) Development of uranium conversion capability as part of the uranium beneficiation strategy
  - (iv) Establishment of a uranium enrichment capability
  - (v) Establishment of a nuclear fuel fabrication capability
  - (vi) Investigating the feasibility of a national spent fuel reprocessing capability
  - (vii) Enhancement of the NNR Nuclear Emergency Management function
  - (viii) Enhancement of the NNR's physical security oversight functions
  - (ix) Establishment of an independent radio-analytical laboratory for regulatory purposes from 2011 onwards.
  - (x) Establishment of a National Radioactive Waste Management Institute

This eminent change broadens the scope of the NNR's oversight and breadth of its activities. In order to effectively respond to these implications, the NNR has to start with preparatory work in order to have the agility to deal with the dynamic nuclear environment in order to sustain its ability to continue to effectively and efficiently execute its mandate in the medium to long term.

## **2. Population development around nuclear installations**

There is increasing population growth developments surrounding certain nuclear installations like Koeberg Nuclear Power Station and Necsa. This poses a threat on the ability for the nuclear facilities to ensure the effective implementation of any nuclear emergency plan to ensure the safety of the public and the viability of the emergency plans.

The NNR is therefore expected to exercise its responsibility to outline, where appropriate, specific requirements relating to the control and/or monitoring of developments within the formal emergency planning zone surrounding a specific nuclear installation, after consultation with the relevant provincial and/or municipal authorities to ensure safety of the public.

### **Implications of the growing population around the nuclear installations:**

In order to effectively manage the challenge, the NNR plans to develop regulations to provide requirements to the relevant provincial and municipal authorities regarding the control and monitoring of present and future developments in the formal emergency planning zone of nuclear installations.

## **3. Stakeholder survey outcomes**

Based on the results of the stakeholder survey conducted in 2007/2008 financial year, the NNR identified that there is a need to create an environment where the NNR is recognised as the credible custodian of public health and safety with regard to nuclear, radioactive materials and nuclear technology applications as part of the implementation of the stakeholder management plan.



The report also indicated that there is an increased public need for information and pressure for greater stakeholder involvement in decision-making will inevitably increase the interest and concerns of the public with regards to nuclear safety and public health.

#### **4. Implications of the stakeholder survey outcomes**

The NNR will thus need to actively engage its diverse array of stakeholders in order to manage reputation and build stakeholder confidence. In addition, the NNR will need to elevate itself to a position where it is recognised as a credible custodian of public health and safety.

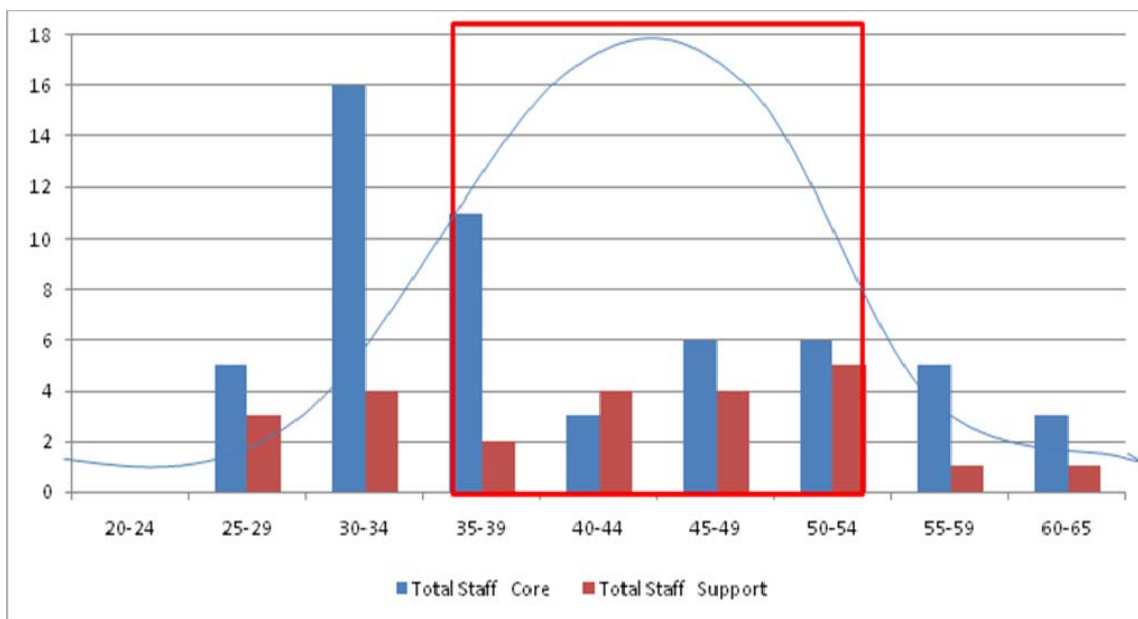
## B. INTERNAL ENVIRONMENT

### 1. The NNR Capacity Assessment

One of the more daunting challenges facing the NNR is the scarcity of experienced staff to carry out its mandate.

The following diagrams depict the organisation’s current age, experience profile and competency levels to illustrate this point:

#### a) Age analysis versus experience profile:



The diagram above outlines the current profile and split between ‘young and relatively inexperienced’ and ‘older and more experienced’ staff. Even though there are no universally accepted guidelines in respect of staffing mix, common sense dictates that the majority of productive staff (particularly in specialist and technical organizations) should fall within the 35-year old to 54-year old age bracket as depicted in the graph above. This forms the backbone in most organizations. As is evident in the graph, the NNR is weak in this area.

In the case of the NNR, the highest number of employees can be found in the 25 to 34-age category. By and large, this group is relatively inexperienced, still learning their trade, and have been with the NNR for less than five years. Ordinarily, this should not be seen as a barrier if the organisation has a well established talent management framework that is able to nurture and ultimately migrate this group into highly productive and value adding contributors over time. However, it is well known that due to global market forces and fierce competition for technical skills, this group is very mobile.



A closer examination of the graph also indicates that there are approximately 8 professional and/or core staff members that are approaching retirement. Some of them occupy leadership and management positions. The organisation's vulnerability is further compounded by the fact that systematic knowledge management instruments to facilitate the downloading and cataloguing of tacit and institutional knowledge from retiring employees are absent.

In summary, the NNR is currently experiencing capacity constraints, even before one factor's in the anticipated growth in the industry.

### **Implications of the capacity constraints**

The NNR has undertaken a detailed review of its current capacity requirements with regards to staff numbers and coverage of technical disciplines needed to service the existing nuclear authorisations issued and the planned expansion of the South African nuclear sector.

The following are key implications:

- The need to sustaining an appropriate level of in-house technical (especially engineers and scientists) capacity to deliver on its core business
- The ability to retain and attract staff within a holistic human resource management framework.
- The need to participate in national and international skills development programmes
- The need to make use of technical support organisations which brings with it the security concerns and over reliance

## **2. Corporate Governance**

The NNR obtained a qualified audit for the 2007/2008 reporting period. The main causes for the qualification have been lack of effective internal control processes and compliance monitoring tools to assess adherence to policies and procedures.

These gaps outlined above were primarily caused by lack of leadership, high turn over of Finance staff especially at management level and also inadequate skills levels required to effectively execute the work.

### **Implications of qualified audit report**

The NNR needs to improve its corporate governance processes. In particular there is a need to:

- Review and update policies to govern activities of the organisation specifically the Delegation of Authority and supply chain management policy amongst others.
- Develop and implement effective internal controls and compliance monitoring tools
- Strengthen strategic alliances between the Executing Authority and the Board while ensuring that the Board and Management vigorously pursue a shared vision for effective delivery on the NNR mandate.
- Building strong relationships at Executive and management levels will facilitate decision-making processes and gear the organization towards better delivery on its core business.
- Build capacity through ensuring that all Finance staff fully implements their Personal Developmental Plans to address skills gaps.



### **3. Internal Business Processes**

There are internal inadequacies in synergy between systems, processes and structure. The unfilled posts in the organisation aggravate this challenge. In addition, there is a need to continuously reengineer the internal business processes in order to improve the efficiency and effectiveness of available human and financial resources.





**IV. STRATEGIC DIRECTION**

This section outlines the strategic direction of the National Nuclear Regulator. The importance of setting the strategic direction is to articulate the NNR’s response and positioning given the dynamic environment in order to create a stable environment that will enable delivery of the mandate.

This section has four sub-sections A, B, C and D. They are all interlinked and aligned to enable the NNR to achieve all the strategic goals. The outline of the section is as follows:

<b>Sub-section</b>	<b>Description</b>
A	Presents the strategic positioning of the NNR for both core and support business. It highlights the strategic objectives formulated to respond the changes outlined in section (iii – situational assessment) above, describes the key performance areas and scope of work required to achieve the strategic objectives and articulates the key performance outcomes the expected results at the end of the planning period.
B	Provides the MTEF priorities that are linked to the strategic direction defined in sub-section A.
C	Highlights the organisational key strategic risks that may influence the achievement of strategic business objectives
D	Outlines the specific, quantifiable, realistic targets set by the NNR in order to execute the scope to achieve the strategic objectives and key performance outcomes defined above in section C.

**A. Positioning of the NNR**

The strategic direction of the NNR is based on the philosophy that the organisation must proactively respond to the external environment while being realistic in terms of its ability and resources to do so in the internal environment.

The positioning of the NNR is based on the key features of the situational assessment which will influence the NNR’s approach to regulation over the period of this plan are:

**Core business:**

- Growing international trend towards a resurgence of nuclear power.
- Resurgence of uranium mining regionally
- Growing needs for standards for protecting the environment.

**Support business:**

- Higher mobility of workforce
- Potential increase in skills scarcity.



- Increased need for public safety awareness

The regulatory environment associated with reactor and uranium is changing rapidly. The NNR recognizes that the changes will require significant change for the NNR in order to effectively respond to the change.

**The NNR's strategic theme for this planning period is to create a strong, stable and effective regulatory capability through a two-fold approach.**

## 1. Primary focus areas

The primary focus area is the core business of the NNR. The NNR has taken a strategic approach to make safety, security and operational excellence the key performance measures for the core business.

The primary goal is to ensure adequate protection of public health and safety and the environment through the use of best practice of appropriate regulatory policies, practices and effective compliance monitoring that ensures effective regulations.

In order to ensure achievement of the primary goal outlined above, the NNR identified the strategic objectives that describes the intended purpose, defined the key performance areas and key performance outcomes that measure the results to be achieved.

The following objectives were agreed and set to drive the scope of the core business:

- Delivery of mandate and effective utilisation of resources
- Enhance regulatory enforcement regime
- Strengthen regulatory oversight of nuclear security
- Maintain co-operative governance

### **Key performance areas:**

In order to realise the strategic objectives outlined above, the following scope of work has been defined:

**Standards:** review and implement appropriate regulatory policies, practices and effective compliance monitoring by, strengthening the analytical verification capability and capacity of the NNR Laboratory, strengthening the regulatory enforcement regime, and strengthening the NNR's regulatory research programmes in support of the regulatory process.

**Inspection and enforcement:** enforcing compliance with the law by holders, and in particular the nuclear site licence conditions.

**Authorisations process:** granting, amending or updating nuclear authorisations timely.

### **Key performance outcomes:**



Furthermore, in order to achieve the scope of work for the core business, key performance indicators (KPIs) have been clearly set to serve as a measure to assess if results have been achieved core business:

- Reduction of occurrences of any nuclear related accidents to the workers, public, property and environment
  - Ensure that risk to the workers, public and the environment is kept as low as reasonably achievable below the regulatory limits
  - Ensure that the radiation doses to workers and the public are as low as reasonably practicable below the regulatory limits at all regulated facilities.
  - Increased compliance by holders to ensure that all activities at regulated facilities are carried out safely and timely
- Operational excellence regarding granting and amending nuclear authorisations

## 2. Secondary focus areas

The NNR recognises that to achieve its targets set out in the primary focus areas, an enabling environment needs to be established internally within the organisation. The internal environment needs to be underpinned by efficiency and effectiveness principles.

The organisational structure restructuring/change was one of the key elements that were done in the context of creating the structure to support the required enabling environment.

In order to ensure achievement of the support business goals outlined above, the NNR identified the strategic objectives that describes the intended purpose, defined the key performance areas and key performance outcomes that measure the results to be achieved.

The following objectives were agreed and set to drive the scope of the support business:

- Improve local reputation and stakeholder management
- Increase regional and international involvement
- Maintain international reputation
- Promote good governance
- Streamline internal processes
- Improve infrastructure
- Enhance effective communication
- Enhance expertise of staff
- Ensure adequate supply of skills
- Foster growth and retention of talent

### Key performance areas:

The NNR continuously improves its support and enabling processes to ensure that they are efficient, cost-effective and supportive of risk management and effective decision-making:

- **Internal business processes:** improve and strengthen internal business processes, ensure alignment to good governance practices in order to adequately be responsive to environmental dynamics.



- **Stakeholder management:** create an environment where the NNR is recognised as the credible custodian of public health and safety with regard to nuclear, radioactive materials and nuclear technology applications
- **Regional collaborations:** fulfil international and regional obligations with respect to international instruments and other initiatives.
- **Human resources:** Build capacity through effective talent management

### **Key performance outcomes**

The following are the key performance outcomes (KPOs) of the secondary focus areas. These were clearly defined to outline the key results to be achieved in the support business:

- Compliance to good governance and operational excellence requirements
- Increased stakeholder confidence
- Increased public awareness on safety matters
- Reduction of attrition rate
- Reduction of skills gaps
- Enhancement of management and leadership capacity

### **B. Key priorities of MTEF period**

The expanding nuclear programme, introduction of new technologies such as the PBMR and proposed new build programme and resurgence in uranium mining, bring increased competition for scarce skills. To address the challenges faced, the NNR has proactively engaged in strengthening its in-house capacity and has launched strategic initiatives such as:

- Develop, review and implement appropriate regulatory policies, practices and effective compliance monitoring by strengthening the analytical verification capability and capacity of the NNR Laboratory, strengthening the regulatory enforcement regime, and strengthening the NNR's regulatory research programmes in support of the regulatory process.
- Improved pipeline sourcing and talent management for recruitment, retention and development of technical expertise;
- Establishment of partnerships with technical support organizations;
- Ensuring that adequate infrastructure including office space is in place in line with the increase in the size of NNR
- Improve international co-operation and liaison enabling NNR specialists to extend their knowledge through participation in international forums and scientific visits.
- Strengthening of corporate governance by developing and maintaining sound policies and adequate control

The key priorities above are aligned with the primary and secondary focus areas outline above.

Fulfilment of the above needs is important for the NNR to be in a position to effectively and efficiently:

- i. Enforce regulatory standards and practices to ensure that an acceptable level of safety and full compliance with the conditions of authorisation and regulatory requirements is maintained by regulated operating organisations and applicants for nuclear authorisations.



- ii. Meet the national obligations with respect to international instruments on nuclear safety.
- iii. Support the implementation of the National Radioactive Waste Management Policy and Strategy.
- iv. Support the implementation of the National Nuclear Energy Policy and Strategy.
- v. Respond to the needs of the holders of nuclear authorisations, applicants for new nuclear authorisations and other stakeholders
- vi. Improving stakeholder confidence in South Africa's nuclear regulatory system through the implementation of an enhanced communications policy to improve public understanding of the issues relating to the nuclear sector; providing accurate and timely information about the safety performance of authorization holders to stakeholders; and enhancing the efficacy and frequency of face-to-face stakeholder engagement processes;
- vii. Improving and strengthening internal business processes, aligned to best practice and responsive to environmental dynamics through the implementation of an integrated management system to ensure excellence in internal business processes, sound financial administration and good corporate governance; and
- viii. Attracting, developing and retaining staff to maximize internal capacity through the use of an innovative talent management strategy to achieve a high quality, diverse work force with the skills needed to achieve the NNR's vision; reducing the NNR reliance on external technical support by building capacity within the organization; realignment of policies, procedures and practices to advance the transformation imperative; and ensuring a sustainable safety assessment capability in order to conduct safety assessment reviews for the granting or otherwise of authorizations for new actions and the approval of changes to existing actions

### C. Strategic Risks identified in relation to strategic objectives

Below are the strategic risks that may influence the achievement of strategic business objectives.

- **Leadership capacity:** There has been lack of sustainability of strategic direction due to the fact that 80% of EXCO members are acting. This poses a risk in terms of providing clear strategic direction of the organization, business continuity and mobilizing a culture of performance in the medium to long term.
- **Good governance:** The NNR obtain a qualified audit for the 2007/2008 reporting period. The main causes for the qualification have been lack of effective internal control processes and compliance monitoring tools to assess adherence to policies and procedures. This compromises the relationship between the NNR Management, NNR Board and the oversight Executive Authority.
- **Human resources capacity:** The NNR currently has a high attrition rate and about 40% vacancies. The inability to retain and attract staff might compromise the delivery of the strategic objectives.

In order to mitigate the risks identified above, the NNR has identified the following strategic initiatives that form part of the implementation plan:



- **Leadership capacity:** Leadership and management development programmes for all D and E Bands
- **Good governance:** Development of comprehensive and sound policies and internal control systems
- **Human resource capacity:** Implementation of talent management framework that includes, succession planning, retention strategy amongst others



**D. Balanced Scorecard**

In order to execute the scope of work defined under for both core and support business and also to achieve the strategic objectives and key performance outcomes defined above in section C, the NNR has defined specific, quantifiable, realistic targets to be achieved in the next three years. These targets establish the bar for the rest of the planning effort. .

<i>VISIONARY GOAL</i>	<i>GOAL DESCRIPTION</i>	<i>KEY PERFORMANCE OUTCOMES</i>	<i>OBJECTIVES (MEASURE OF SUCCESS)</i>	<i>TARGET '09</i>	<i>TARGET '10</i>	<i>TARGET '11</i>
<b>1 DELIVERY OF MANDATE AND EFFECTIVE UTILISATION OF RESOURCES</b>	Ensure adequate protection of workers, public health and safety and the environment through the use of best practice of appropriate regulatory policies, practices and effective compliance monitoring that ensures effective regulations. .	<ul style="list-style-type: none"> <li>Reduction of occurrences of any nuclear related accidents to the public, property and environment</li> <li>Risk to the workers, public and the environment kept as low as reasonably achievable below the regulatory limits</li> <li>Radiation doses to workers and the public kept as low as reasonably practicable at all regulated nuclear facilities below the regulatory limits</li> <li>Full compliance with authorisations conditions by holders to ensure that the all activities regulated entities are carried out</li> </ul>	1. Achieved milestones, identified in the framework and implementation plan to optimise the legislative and regulatory framework, each year	100%	100%	100%
			2. # of nuclear related accidents at sites	0	0	0
			3. % compliance by holders	100%	100%	100%



<i>VISIONARY GOAL</i>	<i>GOAL DESCRIPTION</i>	<i>KEY PERFORMANCE OUTCOMES</i>	<i>OBJECTIVES (MEASURE OF SUCCESS)</i>	<i>TARGET '09</i>	<i>TARGET '10</i>	<i>TARGET '11</i>
		<p>safely and timely</p> <ul style="list-style-type: none"> <li>Operational excellence regarding granting and amending nuclear authorisations</li> </ul>	<p>4. Radiation doses to workers</p> <p>5. Radiation dose to public</p> <p>6. Risk to workers public and the environment</p> <p>7. % Nuclear sites inspected</p> <p>8. % Licensees' emergency exercises done</p>	<p>Within prescribed limit</p> <p>Within prescribed limit</p> <p>Within prescribed limit</p> <p>100% as per plan</p> <p>100% as per plan</p>	<p>Within prescribed limit</p> <p>Within prescribed limit</p> <p>Within prescribed limit</p> <p>100% as per plan</p> <p>100% as per plan</p>	<p>Within prescribed limit</p> <p>Within prescribed limit</p> <p>Within prescribed limit</p> <p>100% as per plan</p> <p>100% as per plan</p>





<i>VISIONARY GOAL</i>	<i>GOAL DESCRIPTION</i>	<i>KEY PERFORMANCE OUTCOMES</i>	<i>OBJECTIVES (MEASURE OF SUCCESS)</i>	<i>TARGET '09</i>	<i>TARGET '10</i>	<i>TARGET '11</i>
			9. Completeness and timeliness of safety reviews completed	As per plan with the holders	As per plan with the holders	As per plan with the holders
<b>2 ENHANCE REGULATORY ENFORCEMENT REGIME</b>	Enhance the enforcement of regulatory standards and practices to achieve and ensure effectiveness and efficiency <i>(of level of safety)</i> .	<ul style="list-style-type: none"> <li>Increased compliance by holders to ensure that the activities at regulated entities are carried out safely and timely</li> </ul>	<i>(Enhance the enforcement of regulatory standards and practices to)</i> 1. Achieve 100% enforcement	100%	100%	100%
			2. Achieve 100% compliance	100%	100%	100%
<b>3 STRENGTHEN THE NUCLEAR SECURITY REGULATORY OVERSIGHT</b>	Strengthen the nuclear security regulatory oversight through the use of best practice of appropriate regulatory standards, policies, practices and effective compliance monitoring that ensures effective regulations. .	<ul style="list-style-type: none"> <li>Strengthened regulatory oversight of nuclear security</li> </ul>	1. Regulatory framework and implementation plan for nuclear security in place	December 2008		
			2. Achieved milestones, identified in the framework and implementation plan	100%	100%	100%
<b>4 PROMOTE GOOD GOVERNANCE</b>	Promote compliance to good governance, accountability and	<ul style="list-style-type: none"> <li>Comprehensive and sound policies and procedure to ensure compliance with</li> </ul>	1. Have unqualified audit report	July 2009	July 2010	July 2011
			2. Reduce the number	July 2009	July 2009	July 2009



<i>VISIONARY GOAL</i>	<i>GOAL DESCRIPTION</i>	<i>KEY PERFORMANCE OUTCOMES</i>	<i>OBJECTIVES (MEASURE OF SUCCESS)</i>	<i>TARGET '09</i>	<i>TARGET '10</i>	<i>TARGET '11</i>
	transparency.	governance etc. Have a measure to have achieved it by mid year.  <ul style="list-style-type: none"> <li>Compliance to good governance and operational excellence requirements</li> </ul>	of audit findings  3. Achieve timely reporting as stipulated  4. % compliance internal policy and procedures			
<b>5 STREAMLINE INTERNAL PROCESSES</b>	Align and streamline business processes.		1. Increase organisational performance  2. Achieve financial objectives	100% adherence to approved policies, procedures and processes on quarterly basis  Monthly expenditure per budget	100% adherence to approved policies, procedures and processes on quarterly basis  Monthly expenditure per budget	100% adherence to approved policies, procedures and processes on quarterly basis  Monthly expenditure per budget
<b>6 ENHANCE EFFECTIVE COMMUNICATION</b>	Enhance internal and external communication processes.		1. Increase positive feedback from stakeholders ( <i>Surveys reports</i> )	10%	20%	30%
<b>7 IMPROVE INFRASTRUCTURE</b>	Improve infrastructure ( <i>ICT and Building etc.</i> ).		1. Minimise downtime levels	• 1 to 2 hour response time and resolution	• 1 to 2 hour response time and resolution by internal	• 1 to 2 hour response time and resolution



<i>VISIONARY GOAL</i>	<i>GOAL DESCRIPTION</i>	<i>KEY PERFORMANCE OUTCOMES</i>	<i>OBJECTIVES (MEASURE OF SUCCESS)</i>	<i>TARGET '09</i>	<i>TARGET '10</i>	<i>TARGET '11</i>
				by internal resources • 4 hour response time and resolution by external support or minimum per SLA	resources • 4 hour response time and resolution by external support or minimum per SLA	by internal resources • 4 hour response time and resolution by external support or minimum per SLA
			2. Adhere to timeline in establishing physical infrastructure	• SLA negotiated within one month of receiving request • Infrastructure ready per project time lines	• SLA negotiated within one month of receiving request • Infrastructure ready per project time lines	• SLA negotiated within one month of receiving request • Infrastructure ready per project time lines
<b>8 MAINTAIN INTERNATIONAL REPUTATION</b>	Enhance NNR reputation by participating in	<ul style="list-style-type: none"> <li>Increased stakeholder confidence</li> </ul>	Have yearly plan to participate in Forums ( <i>local and international</i> )	April '09	April '10	April '11



<i>VISIONARY GOAL</i>	<i>GOAL DESCRIPTION</i>	<i>KEY PERFORMANCE OUTCOMES</i>	<i>OBJECTIVES (MEASURE OF SUCCESS)</i>	<i>TARGET '09</i>	<i>TARGET '10</i>	<i>TARGET '11</i>
	international and local forums and being responsive to stakeholders.	<ul style="list-style-type: none"> <li>Increased public awareness on safety matters</li> </ul>	Achieve according to planned milestones	100%	100%	100%
			Achieve improvement in stakeholder satisfaction ( <i>% of baseline each year</i> )	20%	20%	20%
<b>9 IMPROVE LOCAL REPUTATION AND STAKEHOLDER MANAGEMENT</b>	Increase stakeholder confidence in the nuclear regulatory system.		<i>(increase and maintain stakeholder confidence in the nuclear regulatory system)</i> 1. Increase regular contacts and meetings by	10%	20%	30%
			2. Shorten regulatory response time to holders and the public to within agreed time-frames	100%	100%	100%
			3. Have the <b>number of good vs. negative stories</b> to be more by	10%	20%	30%
<b>10 INCREASE REGIONAL AND INTERNATIONAL INVOLVEMENT</b>	Enhance the involvement in regional and international development to harmonise safety standards and	<i>(Enhance the involvement in regional and international development in harmonisation of safety standards and practices)</i> 1. Have a network of African Regulators	100%	100%	100%	



<i>VISIONARY GOAL</i>	<i>GOAL DESCRIPTION</i>	<i>KEY PERFORMANCE OUTCOMES</i>	<i>OBJECTIVES (MEASURE OF SUCCESS)</i>	<i>TARGET '09</i>	<i>TARGET '10</i>	<i>TARGET '11</i>
	practices. {Include the international participation with other regulators }		established			
			2. Increase interaction with regulators in sub-region of SADC	100%	100%	100%
<b>11. ENHANCE CO-OPERATIVE GOVERNANCE</b>	Enhance implementation and maintenance of co-operative governance agreements.		<i>(Enhance implementation and maintenance of corporate governance agreements)</i> 1. Have at least 2 meetings per year at JCC level	100%	100%	100%
<b>12. ENHANCE EXPERTISE OF STAFF</b>	Exploit the current base of expertise and forums ( <i>local and international</i> ) to enhance skills coverage and develop NNR core business processes ( <i>procedures and practices</i> ).	<ul style="list-style-type: none"> <li>• Reduction of attrition rate</li> <li>• Reduction of skills gaps</li> <li>• Enhancement of management and leadership capacity</li> </ul>	1. % of training completed	50%	75%	100%
			2. Ensure documentation of core business processes to retain corporate memory	30%	80%	90%
<b>13. ENSURE ADEQUATE SUPPLY OF SKILLS</b>	Ensure adequate supply of skills and deliver on NNR mandate for short and		3. Achieve coverage for all positions	75%	80%	85%
			4. Increase number of interns	8	10	12



<i>VISIONARY GOAL</i>	<i>GOAL DESCRIPTION</i>	<i>KEY PERFORMANCE OUTCOMES</i>	<i>OBJECTIVES (MEASURE OF SUCCESS)</i>	<i>TARGET '09</i>	<i>TARGET '10</i>	<i>TARGET '11</i>
	long term.		5. Have strategic partnerships with universities in Science and Engineering	2	3	4
<b>14. FOSTER GROWTH AND RETENTION OF TALENT</b>	Create an environment that fosters growth and retention of skills with emphasis on effective training and development, PM and appropriate remuneration and reward.		1. Achieve staff satisfaction level of:	75%	80%	85%
			2. Achieve % of total personnel cost spend on training and IDP development for all staff	2%	3%	4%
			3. Have E and D band [staff] undergo leadership development training	75%	80%	85%
			4. Achieve retention of key identified skills	80%	90%	95%
			5. Ensure successor for each key position	40%	50%	60%



***V. COMPLIANCE TO REGULATIONS***

**A. Submission to the Minister of the DME in respect of the Regulations and Notices under the NNR Act**

In addition to the strategic commitments made in the NNR score cards, the NNR is expected to comply with requirements in respect of regulations under the NNR Act. The NNR must annually make submission under various regulations for approval by the Minister of Department of Minerals and Energy. The table below gives the requirements to be submitted annually in terms of the National Nuclear Regulator Act:



<i>SECTION</i>	<i>PROVISION</i>	<i>DELIVERABLE</i>	<i>SUBMISSION DATE</i>
7(1)(j)	7(1)(j) Produce and submit to the Minister an annual public report on the health and safety related to workers, the public and the environment associated with all sites including, but not limited to, the prescribed contents.	Annual Report	30 August annually
15(6)(d)	15(6) The chief executive officer must -  (d) <i>complete a report on the activities of the Regulator for each financial year in accordance with the Reporting by Public Entities Act, 1992 (Act No. 93 of 1992), and submit the report to the board for approval;</i>	Report against strategic objectives	Quarterly
15(6)(e)	15(6) The chief executive officer must—  (e) <i>each financial year, after consultation with the board and with the approval of the Minister, publish and distribute a plan of action for the activities of the Regulator.</i>	Strategic Plan and Budget	31 September annually
28(a) and (b)	28 The Minister 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 Regulator in respect of -  a) <i>any application for the granting of a nuclear authorisation;</i> b) <i>an annual nuclear authorisation fee.</i>	Recommendation for the granting of a nuclear authorisation and an annual nuclear authorization fee by the Board for the Minister	31 September annually
29(1) and (2)	29 (1) The Minister must, on the recommendation of the board and by notice in the Gazette, categorise the various nuclear	Recommendation for the categorization of the various nuclear	31 December annually





	<p>installations in the Republic, based on the potential consequences of a nuclear accident.</p> <p>(2) The Minister must, on the recommendation of the board and in consultation with the Minister of Finance and by notice in the Gazette, determine -</p> <p><i>A. the level of financial security to be provided by holders of nuclear installation licenses in respect of each of those categories; and</i></p> <p><i>B. the manner in which that financial security is to be provided,</i></p> <p><i>C. in order for the holder of a nuclear installation licence to fulfill any liability which may be incurred in terms of section 30.</i></p>	<p>installations by the Board to the Minister</p>	
--	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------	--



## ***VI. IMPLEMENTATION PLANNING***

This section outlines the roadmap for implementing and achieving the strategic direction (ref. Section II). The road map focuses on the strategies required to achieve NNR's objectives and goals. The strategies were (*indirectly*) prioritised by means of developing a timeline (*Appendix*).



## A. Implementation plan

Strategies are the broad high-level project based activities which drive the achievement of the objectives by controlling the critical success factors and overcoming the barriers. From these strategies detailed project plans can be developed.

<b><i>1) CLEAR MANDATE AND RESOURCES</i></b>	
<b><i>STRATEGIES:</i></b>	<b><i>COMPLETION DATE</i></b>
S(1). Implement the plan to achieve milestones ( <i>optimise the legislative and regulatory framework taking into account the changing nuclear environment</i> )	Sep '10 deliverable timeframe according to envisaged nuclear programme
S(2). Conduct benchmarking against other regulators in order to assess effectiveness of NNR practices	Dec '10
S(3). Conduct self assessments to monitor compliance with standards and processes	Dec '10
S(4). Establish the advisory committee	April 2009
S(5). Continue to apply regulatory control through the development and implementation of compliance assurance programs and safety assessments and enforcement	On going
S(6). Strengthen the regulatory oversight of nuclear security by developing a regulatory framework and implementation plan for nuclear security	December 2008
S(7). Implement milestones, identified in the nuclear security framework and implementation plan	On going
S(8). Subject NNR to peer review against best practice for self improvements	Dec '10
S(9). Upgrading NNR emergency response control centre	Dec '10



<b>2) EXPERTISE OF OUR PEOPLE</b>	
<b>STRATEGIES:</b>	<b>COMPLETION DATE</b>
S(10). Develop strategy to achieve reduction in skills gaps	Jun '09
S(11).Develop a plan to implement the strategy (skills gap reduction) including milestones	Jun '09
S(12).Develop strategy to address gaps(documented procedures)	Sep '10
S(13).Develop plan to implement strategy (documented procedures)	Sep '10
S(14). Implement the plan to achieve milestones (skills gap reduction)	Mar '11
S(15). Implement the plan to achieve milestones (documented procedures)	Mar '11

<b>3) GOOD REPUTATION</b>	
<b>STRATEGIES:</b>	<b>COMPLETION DATE</b>
S(16). Develop a yearly plan to participate in forums	Mar '09
S(17). Develop strategy for stakeholder engagement	Mar '09
S(18). Implement the plan for participation in forums	Mar '11
S(19).Implement the strategy for stakeholder engagement	Mar '11
S(20).Implement stakeholder satisfaction survey	Mar '11



<b>4) GOOD GOVERNANCE</b>	
<b>STRATEGIES:</b>	<b>COMPLETION DATE</b>
S(21).Implement a Business Continuity Plan (BCP)	Mar '10
S(22).Develop compliance monitoring tools (control assessment checklist for managers and checked by the CFO)	Mar '10
S(23).Develop and implement EDMS integrating CSA and QMS for automated processes	Sep '10
S(24).Develop financial policies, procedures and control system	

<b>5) INTERNAL PROCESSES</b>	
<b>STRATEGIES:</b>	<b>COMPLETION DATE</b>
S(25).Develop departmental and individual scorecards	June '09
S(26).Implement QMS	Mar '10

<b>6) EFFECTIVE COMMUNICATION</b>	
<b>STRATEGIES:</b>	<b>COMPLETION DATE</b>
S(27).Implement communication strategy	Mar '09

<b>7) IMPROVED INFRASTRUCTURE</b>	
<b>STRATEGIES:</b>	<b>COMPLETION DATE</b>



<b>7) IMPROVED INFRASTRUCTURE</b>	
<b>STRATEGIES:</b>	<b>COMPLETION DATE</b>
S(28).Plan and implement for all physical infrastructure across NNR	Mar '09
S(29).Implement IT Strategy	Mar '10

<b>8) REGULATORY ENFORCEMENT REGIME</b>	
<b>STRATEGIES:</b>	<b>COMPLETION DATE</b>
S(30).Develop efficiency tools to monitor and measure business efficiency	June '09
S(31).Implement verification and enforcement regime to ensure full compliance to regulatory requirements	June '09
S(32).Develop harmonised system of verification and enforcement programme	Mar '09
S(33).Ensure revision of legislation to improve enforcement regime	Mar '10

<b>9) NNR REPUTATION AND STAKEHOLDER MANAGEMENT</b>	
<b>STRATEGIES:</b>	<b>COMPLETION DATE</b>
S(34).Develop and implement public education campaign	Dec '09

<b>10) REGIONAL AND INTERNATIONAL INVOLVEMENT</b>	
<b>STRATEGIES:</b>	<b>COMPLETION DATE</b>
S(35).Participate in international forums in support of core business and reputation	Sep '09



<b>10) REGIONAL AND INTERNATIONAL INVOLVEMENT</b>	
<b>STRATEGIES:</b>	<b>COMPLETION DATE</b>
S(36).Establish African Regulators Network	Dec '09
S(37).Establish and implement bi-laterals in SADC region	Dec '09



<b>11) CO-OPERATIVE GOVERNANCE</b>	
<b>STRATEGIES:</b>	<b>COMPLETION DATE</b>
S(38).Develop and implement cooperative agreement plan and identify partnerships with other entities	Sep '09

<b>12) ADEQUATE SUPPLY OF SKILLS</b>	
<b>STRATEGIES:</b>	<b>COMPLETION DATE</b>
S(39).Implement Succession Plan	Sep '09
S(40).Implement a culture change programme (Address morale)	Dec '09

<b>13) GROWTH AND RETENTION OF TALENT</b>	
<b>STRATEGIES:</b>	<b>COMPLETION DATE</b>
S(41).Review and agree conditions of service	Sep '09
S(42).Review and implement HR policies and procedures	Sep '09
S(43).Review and implement remuneration system	Sep '09
S(44).Review the organisational structure (includes staffing plan)	Sep '09
S(45).Implement training and development plan	Sep '09
S(46).Implement EE Plan (Addressing gender, etc)	Dec '09





<b><i>13) GROWTH AND RETENTION OF TALENT</i></b>	
<b><i>STRATEGIES:</i></b>	<b><i>COMPLETION DATE</i></b>
S(47).Review HR strategy and plan	Dec '09
S(48).Implement leadership development plan	Dec '09
S(49).Implement a culture change programme (address morale)	Dec '09
S(50).Implement succession plan	Sep '09



**VII. RESOURCE PLAN**

**A. Human resource plan**

The NNR has undertaken a detailed review of its current capacity requirements with regards to staff numbers and coverage of technical disciplines needed to service the existing nuclear authorisations issued and the planned expansion of the South African nuclear sector.

Further in approving the restructuring of the NNR, the NNR Board had previously approved the increase in numbers of the NNR resulting in a total staff compliment 122. This compliment was linked to the NNR requirements to service the existing authorisation holders and did not take account of impact of the recently announced government’s National Policy and Strategy, Eskom’s expansion programme as well as the renewed interest in uranium exploration.

However, due to the problems in attracting the right calibre of specialists to the NNR, resulting largely from salary packages that were not market related, the NNR had not previously requested the full funding of the approved staff compliment. The staff compliment was therefore only partially funded. The revision of the salary packages in 2007 has now placed the NNR in a more competitive position within the market and the NNR can now successfully attract the specialists needed.

The NNR is therefore now desirous of filling the existing vacancies and addressing the future staffing needs.

NNR Programme	Required new Staff Numbers Per Financial Year			
	2008/09	2009/10	2010/11	2011/12
Nuclear Reactors	1	5	1	0
PBMR	4	10	0	0
Nuclear Technology	4	5	1	0
Norm	3	3	3	1
New Build	10	10	0	0
Emergency Planning	3	0	2	1
Security	2	0	1	1
Quality Assurance	3	4	0	0
Regulatory Research	3	4	0	0
Support Services	5	2	1	2
<b>Total</b>	<b>38</b>	<b>43</b>	<b>9</b>	<b>5</b>

The NNR also plans to increase the number of interns employed with the aim of building a skills pool. This is catered for under the NNR general expenses



## B. Budget plan

### PROJECTIONS OF REVENUE AND EXPENDITURE

The overall budgeted expenditure and income for the financial year 2009–2012 reflects an increase for 2009-2010 of 42% against the comparative 2008/09 budget of R90,295,357. This is mainly due to increasing the staff complement from 102 to 122 as approved by the NNR Board in 2006 and providing the necessary infrastructure for the staff increase. NNR strategic plan spans over the three years, thus a budget for the entire three periods. The operational budget is expected to increase from the 2009 by inflation (estimated at 13%) and personnel expenditure over the entire three year period. In addition to the usual inflationary adjustment, this increase accommodates provisions needed for the organisation to implement the following:

- ⇒ Optimisation of the legislative and regulatory environment in order to improve regulatory efficiency and effectiveness
- ⇒ Adoption of an inclusive, balanced and effective approach in addressing stakeholder needs, including openness and transparency by implementation of an effective communication strategy
- ⇒ Use of an innovative human resource management strategy to achieve a high quality, diverse work force with the skills needed to achieve the NNR's vision
- ⇒ Improvement and strengthening internal business processes, aligned to best practices and responsive to environmental dynamics by:
  - Developing and implementation a knowledge management system including retention of corporate memory
  - Implementation of ICT strategy to build sound IT infrastructure to support core business

### EXPENDITURE

The budget is broken down over a three year period into following line items:

	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
	<b>R 000</b>	<b>R 000</b>	<b>R 000</b>
⇒ Personnel Expenses	74.220	83.869	94.772
⇒ Subsistence and travel	5.983	6.761	7.640
⇒ Expenditure General	24.177	27.320	30.872
⇒ Operational Expenses	11.049	12.089	12.767
⇒ Capital Expenditure	12.815	63.374	26.628

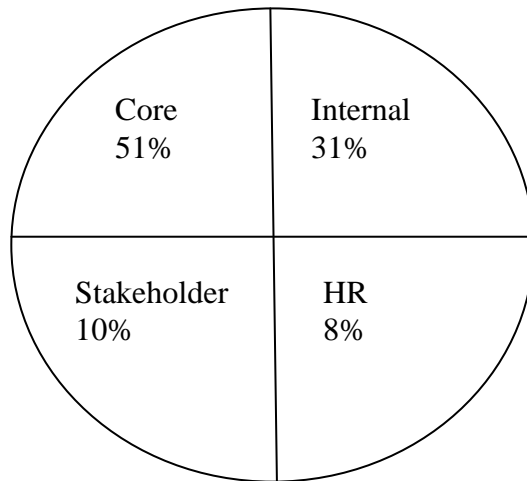
The operational budgets for 2010/11 and 2011/12 are both projected to increase by 13%.

The projected capital expenditure for the three years, as presented in the 2009-12 MTEF include major infrastructure expenditure (such as construction of a new office building for the NNR and will be funded from the state grant as indicated in the overall budget attached in annexure 1.



However, these have not factored in, the full costs associated with the foreseen expansion of the nuclear programme in South Africa such as the Eskom new builds expansion programme , expansion of uranium mining and other nuclear technologies development ,as these will only become clear later in the next financial years. Provision has been made in the budget for resources to undertake preparatory work for this foreseen nuclear expansion programme.

The more detailed allocation of the budget is presented in annexure 1 below and can be broken down as follow in terms of the strategic objectives:



The allocation of the 2009-2010 budget will be as follows:

The core business will get 51%, which is R65,405,411. The core business is the primary strategic objective for NNR.

The secondary objectives are related to Internal Business which is allocated 31%, which is R39,756,230, Stakeholder management is 10% which is R12,824,590 and Human Resource is 8%, which is R10,259,672.

**Main cost drivers:**

The main cost drivers are personnel cost which amount to R74,220,664 which is 58% of the total budget The increase in personnel cost is due to increase in staff complements in line with the approved structure. The other reason is high inflation rate which is higher than indicative rate of 6% from National Treasury assume in the 2008-2009 budget.

The consulting fees are another major cost driver. This is due to complex diversity of nuclear industry and shortage of skills. It is 8% of the total budget.

International visits will make 2% of the overall budget, which is not significant to the budget as a whole.

**Internal business process**

The organization received a qualified audit opinion for the year ending 31 March 2008, due to the internal weakness in the internal controls and systems. This warranted a high allocation percentage of the budget to address all the weakness identified during the audit and strengthen the corporate service department, thus an allocation of 31 % of the total 2009-2010 budget to support the strategic objectives to develop and implement sound policies and adequate systems of internal control.



## **Stakeholder Management and regionalization**

The stakeholder survey conducted in 2007/08 financial year indicated that there is a need to increase publicity regarding nuclear safety and public health and credibility public confidence of the NNR, thus an allocation of 10 % of the total 2009-2010 budget to support the strategic objectives.

## **Human resources**

The implementation of the revised HR strategies, policies and procedures are aimed at achieving a high quality, diverse work force with the skills needed to achieve the NNR's vision, thus an allocation of 8%, which is R10,259,672 of the total 2009-2010 budget to implement the strategic objectives.

## **REVENUE**

The NNR currently generates revenue from two sources, namely:

- Government funding
- Authorization fees collected from authorization holders (existing and new)

Any shortfall not covered by Government funding is recovered through fees from authorization holders. This may lead to fee increases that are above inflation.

The income/revenue of the NNR for the three years 2009-2012 of the strategic plan is summarized in Table 1 below. The overall approach used from 2001 to calculate the authorisations fees has remained the same namely that the annual fees charged to a specific holder is based on an estimated person-effort based on past operational experience and also taken into account expected increases in workload for these holders. The first notice on authorization fees published in 2001 was based on person-effort based on the NNR total complement of 86. Subsequent to that the authorizations fess were adjusted from year to year based on inflation without specifically reviewing the person-effort spent on the various projects. In 2006 the Board approved that the NNR staff complement be increased by 36 posts (mainly technical) from 86 to 122 to be spread over three years. The proposed income and expenditure budget of the strategic plan for 2009-2010 is based 122 staff number.

For the calculation of the authorization fees for 2009-2010 the person-effort for each of the authorizations holders has been revised taken into account past operational experience and also expected increases in workload. Due to the readjustment of person-efforts to the various regulated entities, as can be seen from Table 1 some authorizations fees have increased significantly above inflation.

As related to the calculation of authorizations fees for the mining and mineral processing the approach has further been optimised to ensure better fairness to the various holders by widening the categories on mines and minerals processing. In the previous calculation fees formula, three broad categories of mines and minerals processes were identified and each holder was allocated a category and a corresponding fee. With operating experience since 2001 it became clear that the categories of mines and mineral processes should be widened to account for all Certificate Of Registrations managed by the NNR. The categories have been increased from three to five and for each category a person-effort has been calculated for the regulatory oversight of each facility. Given this new approach with the spreading of the categories, which is a more accurate reflection of the facilities regulated by NNR, some facilities



fees will increase by more than inflation (in the lower categories –although the increase in Rands term is not very significant).

Given that the adjustment of person-effort has been made for 2009-2010 the projected increases for authorizations fees for the next two years to 2012 will remain within inflation (estimated at 13% in the proposed income and expenditure budget).

The authorizations fees for 2009-2010 are as follow:

• Eskom Koeberg:	R 34,327,962.00
• Eskom PBMR Demonstration Power Plant (DPP)	R 15,163,981.00
• PBMR Fuel Fabrication Plant	R 4,459,994.00
• Necsa (Pelindaba)	R 14,825,982.00
• Necsa (Vaalputs)	R 2,675,997.00
• Mines and Minerals Processing	R 12,710,988.00
○ category 1      small users	R 15,912.00
○ category 2      scrap processors & smelters	R 17,840.00
○ category 3      fertilizers	R 135,673.00
○ category 4      small mines	R 147,171.00
○ category 5      big mines	R 347,880.00
• Hourly Fee Rate for new applications	R 658.79



**TABLE 1 NNR Budgeted Expenditure and Income FY 2009/10 – 2011/12**

**Expenditure**

COST ITEM	Approved Budget 2008/2009	Proposed Budget 2009/2010	Forecast Budget 2010/2011	Forecast Budget 2011/2012	Var 2008/2009	Var 2009/2010	Var 2010/2011 vs 2011/2012
	R	R	R	R	vs 2009/2010	vs 2010/2011	
PERSONNEL EXPENSES	57,702,314	74,220,664	83,869,350	94,772,366	29%	13%	13%
SUBSISTENCE AND TRANSPORT	5,466,988	5,983,304	6,761,133	7,640,080	9%	13%	13%
GENERAL EXPENSES	17,277,726	24,177,640	27,320,734	30,872,429	40%	13%	13%
OPERATING EXPENSES	6,367,737	11,049,296	12,089,604	12,767,243	74%	13%	13%
CAPITAL EXPENDITURE	3,480,592	12,815,000	63,374,600	26,628,990	268%	395%	-58%
<b>TOTAL BUDGET</b>	<b>90,295,357</b>	<b>128,245,904</b>	<b>166,415,421</b>	<b>172,681,108</b>	<b>42%</b>	<b>30%</b>	<b>4%</b>

**Income**

SOURCE	Approved Budget 2008/2009	Proposed Budget 2009/2010	Forecast Budget 2010/2011	Forecast Budget 2008/2009	Var 2008/2009	Var 2009/2010	Var 2010/2011 vs 2011/2012
	R	R	R	R	vs 2009/2010	vs 2010/2011	
AUTHORISATION FEE ESKOM	32,712,413	34,327,962	38,411,500	43,375,637	5%	12%	13%
AUTHORISATION FEE PBMR	11,029,751	15,163,981	16,955,750	19,137,818	37%	12%	13%
AUTHORISATION FEE NESCA	6,947,000	14,825,982	16,559,654	18,749,187	113%	12%	13%
AUTHORISATION FEE VAALPUTS	2,488,775	2,675,997	2,992,191	3,377,262	8%	12%	13%
AUTHORISATION FEE FUEL PLANT	2,524,177	4,459,994	4,986,985	5,628,770	77%	12%	13%
AUTHORISATION FEE MINES-AND MINERALS PROCESSING	9,742,240	12,710,988	14,212,908	16,041,995	30%	12%	13%



Strategy Definition Document

INTEREST	4,200,000	4,371,000.00	4,233,433	4,311,440	4%	-3%	2%
OTHER	318,000						
TOTAL BEFORE STATE CONTRIBUTION	69,962,356	88,535,904	98,352,421	110,622,109	27%	11%	12%
STATE CONTRIBUTION	20,333,000	39,710,000	68,063,000	62,059,000	95%	718%	-9%
<b>GRAND TOTAL</b>	<b>90,295,356</b>	<b>128,245,905</b>	<b>166,415,421</b>	<b>172,681,109</b>	<b>42%</b>	<b>30%</b>	<b>48%</b>





Annexure 1

Details of budget for 2009-2012

<b>SUMMARY</b>	<b>2008/09</b>	<b>2009/10</b>	<b>2010/11</b>	<b>2011/12</b>
	Current	Projected	Projected	Projected
<i>Personnel</i>				
Staff Earnings (Salaries, Allowances, etc)	38,002,109	51,942,383	58,694,893	66,325,229
Staff Benefit - Company Contributions Paid	9,523,199	12,364,551	13,971,942	15,788,295
Staff Annual Pmts (Lump Sum, Bonuses, Leave etc)	3,731,938	5,654,090	6,389,122	7,219,707
Post Retirement Medical Benefits	2,200,000	1,783,664	2,015,540	2,277,561
Contract Workers	996,893	2,475,976	2,797,853	3,161,574
<i>Subsistence &amp; travel expenses</i>	0	-	-	-
S & T - Domestic Visits	2,794,959	3,158,304	3,568,883	4,032,838
S & T - Foreign Visits	2,500,000	2,825,000	3,192,250	3,607,243
Visitors- Foreign & ad Hoc	-	-	-	-
Re-allocation Costs	1,230,000	1,389,900	1,570,587	1,774,763
<i>Administrative expenses</i>	-	-	-	-
Audit Fees	868,577	981,492	1,109,086	1,253,267
Bursars	385,000	435,050	491,607	555,515
Telephone, Postage, Courier Expenses	1,070,153	1,209,273	1,366,478	1,544,121
Meetings, Refreshments, Workshops, etc	1,121,155	1,266,905	1,431,603	1,617,711
Government Levies (SDL,RSC etc)	400,000	452,000	510,760	577,159
Operating Leases	5,409,108	6,112,292	6,906,890	7,804,786
Remuneration - Board of Directors	549,855	621,336	702,110	793,384
Consultancy	9,229,171	10,428,963	11,784,728	13,316,743
Training - Domestic	837,123	945,949	1,068,922	1,207,882
Training - Foreign	30,000	33,900	38,307	43,287
Social Responsibility	266,000	300,580	339,655	383,811
<i>Operating expenses</i>	0	-	-	-
Advertisements	987,053	1,115,370	1,260,368	1,424,216
Bank Charges	10,700	12,091	13,663	15,439
Books, Publications & Library Sevicees	400,210	452,237	511,028	577,462
Building Running Costs	444,720	502,534	567,863	641,685
Consumables	275,884	311,749	352,276	398,072
Insurances	361,060	407,998	461,038	520,972
Subscriptions & Membership Fees	111,920	126,470	142,911	161,489
Maintenance & Service Contracts	1,349,859	1,525,341	1,723,635	1,947,708
Repairs & Maintenance Costs	580,001	655,401	740,603	836,882
Printing Works	600,000	678,000	766,140	865,738
Research Contracts	1,000,000	1,130,000	1,276,900	1,442,897
Stationery	140,643	158,927	179,587	202,933
Transport Costs (Pool Cars)	9,837	11,116	12,561	14,194
Medical Examination Costs	81,472	92,063	104,032	117,556
<i>Sundries expenses</i>	0	-	-	-
Depreciation on Property & Equipment	1,021,500	3,870,000	3,977,000	3,600,000
<b>TOTAL OPERATING EXPENDITURE</b>	<b>88,520,099</b>	<b>115,430,904</b>	<b>130,040,821</b>	<b>146,052,118</b>
<b>TOTAL CAPITAL EXPENDITURE</b>	<b>1,776,258</b>	<b>12,815,000</b>	<b>36,374,600</b>	<b>26,628,990</b>
Furniture	1,159,422	1,908,000	190,800	209,990
Office Equipment	69,336			
Telephone		259,000	294,000	319,000
Computer Equipment	547,500	2,148,000	1,514,800	1,100,000
Computer Software		6,000,000	3,000,000	3,000,000
Intruments		800,000	500,000	10,500,000
Security for building		600,000	-	2,000,000
Library		200,000	500,000	500,000
Infrastructure		<b>900,000</b>	<b>30,375,000</b>	<b>9,000,000</b>
	<b>90,296,357</b>	<b>128,245,904</b>	<b>166,415,421</b>	<b>172,681,108</b>

**VIII. STRATEGY PLAN REVIEW AND APPROVAL****A. Standard Glossary of Terms**

<b>Vision</b>	A picture of the “preferred future”; a statement that describes how the future will look if the organisation achieves its ultimate aims.
<b>Mission</b>	A statement of the overall purpose of an organisation. Describes what you do, for whom you do it and the benefit.
<b>Guiding Principles</b>	General guidelines which set the foundation for how an organisation will operate.
<b>Goals / Imperatives</b>	Broad, long-term aims that define accomplishment of the mission.
<b>Objectives (<i>Measures of Success</i>)</b>	Specific, quantifiable, realistic targets that measure the accomplishment of a goal over a specified period of time.
<b>Critical Success Factors</b>	Components of strategy where the organisation must excel to achieve its objectives.
<b>Barriers</b>	Existing or potential challenges that hinder the achievement of one or more objectives.
<b>Strategies</b>	Broad activities required to achieve an objective, control a critical success factor, or overcome a barrier.
<b>Activity</b>	Specific steps to be taken, by whom and by when, to implement a strategy.
<b>Deliverable</b>	Specific, tangible and measurable outcome of a strategy or group of activities within a strategy.

**IX. APPENDICES****A. Abbreviations**

AG	–	Assessment Group
ALARA	–	As Low As Reasonably Achievable
ARD	-	Assessment and Research Division
ACD	-	Authorisation & Compliance Division
CEO	-	Chief Executive Officer
CFO	-	Chief Financial Officer
CoR	-	Certificates of Registration
CSA	-	Control Self Assessment
CSS	–	Corporate Support Services
DME	-	Department of Minerals and Energy
DPP	-	Demonstration Power Plant
EDMS	-	Electronic Data Management Systems
EE	–	Employment Equity
EXCO	-	Executive Committee
HR	–	Human Resources
IRR	–	International Regulatory Review
IAEA	–	International Atomic Energy Agency
ICT	-	Information Communication Technology
IDP	-	Independent Development Programmes
IT	-	Information Technology
JCC	-	Joint Coordinating Committee
KPI	–	Key performance indicator
KPO	-	Key Performance Outcome
mSv	–	milliSievert



---

MTEF	-	Medium Term Expenditure Framework
MW	-	Mega Watt
NECSA	-	South African Nuclear Energy Corporation
NGO	-	Non-Governmental Organisation
NNR	-	National Nuclear Regulator
NNRA	-	National Nuclear Regulator Act
NTNS	-	Nuclear Technology and Natural Sources
PAIA	-	Promotion of Access to Information Act
PBMR	-	Pebble Bed Modular Reactor
PFMA	-	Public Finance Management Act
PRD	-	Power Reactor Division
QMS	-	Quality Management System
RASSC	-	Radiation Safety Standards Committee
RaSSIA	-	Radiation Safety Infrastructure Appraisal
SADC	-	Southern Africa Development Community
SAR	-	Safety Analysis Report
SLA	-	Service Level Agreement
SWOT	-	Strengths, Weaknesses, Opportunities and Threats