

Vote 28

Minerals and Energy

Budget summary

R million	2009/10				2010/11	2011/12
	Total to be appropriated	Current payments	Transfers and subsidies	Payments for capital assets	Total	Total
MTEF allocation						
Administration	229.3	217.3	1.3	10.7	251.7	267.0
Promotion of Mine Safety and Health	133.0	127.5	5.1	0.5	142.7	151.2
Mineral Regulation	168.1	168.1	–	–	186.2	197.3
Mineral Policy and Promotion	62.4	37.3	25.1	–	67.1	71.0
Hydrocarbons and Energy Planning	55.3	55.3	–	–	60.5	64.1
Electricity, Nuclear and Clean Energy	338.4	73.2	265.2	–	458.0	563.9
Associated Services	3 660.8	–	3 660.8	–	3 940.3	4 124.5
Total expenditure estimates	4 647.2	678.6	3 957.4	11.2	5 106.5	5 439.0
Executive authority	Minister of Minerals and Energy					
Accounting officer	Director-General of Minerals and Energy					
Website address	www.dme.gov.za					

Aim

The aim of the Department of Minerals and Energy is to formulate overall minerals and energy policies, promote integrated planning, and regulate the sectors to support growth, transformation, safety and sustainability.

Programme purposes

Programme 1: Administration

Purpose: Provide strategic support and management services to the ministry and the department.

Programme 2: Promotion of Mine Safety and Health

Purpose: Protect the health and safety of mine employees and people affected by mining activities in the execution of the department's statutory mandate.

Programme 3: Mineral Regulation

Purpose: Regulate the minerals and mining sector in order to promote economic development, employment and ensure transformation and environmental compliance.

Programme 4: Mineral Policy and Promotion

Purpose: Develop relevant mineral policies that promote South Africa's mining and minerals industries in order to attract investment.

Programme 5: Hydrocarbons and Energy Planning

Purpose: Undertake integrated energy planning to promote the sustainable use of energy resources by developing appropriate policies and regulations that promote the efficient use of petroleum products, coal, gas and renewable energy sources.

Programme 6: Electricity, Nuclear and Clean Energy

Purpose: Monitor developments in the electricity, nuclear and clean energy sectors and improve and implement appropriate policies governing these sectors and oversee relevant public entities. Promote universal access to electricity by the broader South African population.

Programme 7: Associated Services

Purpose: Transfer, manage and monitor funds in support of the department's mandates to funded and non-funded statutory bodies and organisations.

Strategic overview: 2005/06 – 2011/12

The Department of Minerals and Energy plays an important regulatory role in the mining and energy sectors, as well as promoting the development of the industries. Over the medium term, the department will prioritise interventions aimed at improving the security of energy supply, promoting mine health and safety and strengthening the regulatory framework within these sectors.

Energy

In January 2008, South Africans experienced rolling power outages as demand for electricity outstripped supply. With the electricity reserve margin declining to less than 8 per cent compared to a target of 19 per cent by the end of 2008, ensuring that there is a secure supply in the electricity sector is clearly a priority. In response to these challenges, the department has instituted a multi-pronged approach to deal with the electricity emergency.

Ensuring a secure supply of electricity

This includes short term interventions aimed at managing demand and improving energy efficiency. Among others, the department has set energy conservation targets, promulgated electricity regulations for the prohibition of certain practices in the electricity supply industry, and defined compulsory norms and standards for the prohibition of the use of incandescent light bulbs in certain circumstances. More long term measures include reforming the legislative and regulatory framework, as well as building new capacity for electricity generation.

The department is currently in the final stages of negotiations with an independent power producer for the construction of two peaking power plants of 1000MW capacity in Eastern Cape and KwaZulu-Natal. The power plants are scheduled for commissioning in the first quarter of 2011. All procurement of generation capacity will be done through Eskom's single buyer office, which means that Eskom is the sole buyer of power from independent power producers. A new regulation will be promulgated to define how the single buyer office will operate, including the oversight role of government and the National Energy Regulator of South Africa.

Electricity pricing

After the electricity pricing policy had been developed by the Department of Minerals and Energy in consultation with the National Energy Regulator of South Africa and other stakeholders, Cabinet approved the policy in November 2008. The electricity sets a clear framework on the determination of electricity prices, creates the basis for cost effective tariffs, ensures the long term sustainability of the electricity industry and promotes the achievement of government's long term socioeconomic goals. This policy will guide the energy regulator in achieving a multi-year price determination (the wholesale tariff negotiation with Eskom) and support the long term sustainability of the electricity industry.

The department also developed a regulation allowing the energy regulator to deviate from the approved tariffs in certain circumstances. This regulation requires the system operator to declare that there is a deficit in electricity generation or a transmission constraint that requires extraordinary action. The energy regulator can then mitigate the electricity deficit or transmission constraint, by deviating from the approved tariff in one of three prescribed circumstances. First, when electricity demand is higher than supply, this threatens the sustainability of the electricity supply industry; second, when national savings targets of at least 10 per cent are not achieved, and third, when the sector saving targets is not achieved. This includes measures to be instituted if individuals and entities consume electricity more than their set quotas, where they are charged at a premium rate to discourage wasteful practices.

Restructuring the electricity distribution industry

The restructuring of the electricity distribution industry aims to restructure and consolidate the fragmented electricity distribution industry into regional electricity distributors to increase efficiencies, reduce disparities in tariffs, improve customer service, maintain infrastructure networks, and benefit from economies of scale. The department has drafted a constitutional amendment to allow for regional electricity distributors to be constituted as public entities. This amendment is required before the primary legislation establishing the regional electricity distributors can be passed. The constitutional amendment is due to be effected in the second half of 2009.

New energy legislation and policies

The National Energy Act was signed by the president in November 2008. The act aims to ensure that diverse energy resources are available, taking into account environmental management requirements and coordination among economic sectors. It also provides for energy planning, the increased generation and consumption of renewable energies, the establishment of a contingency energy supply and the holding of strategic energy feedstocks and carriers, and promotes adequate investment in and the maintenance of energy infrastructure. In addition, the act provides for the establishment of the South African National Energy Development Institute as a schedule 3A entity in line with the Public Finance Management Act (1999).

Petroleum pipeline regulations were promulgated in April 2008. The regulations provide guidance on the determination of tariffs for pipelines, storage and loading facilities, and establish the necessary systems and structures for the National Energy Regulator of South Africa to regulate the industry and promote investment in infrastructure in the pipeline industry.

Nuclear energy remains a possible option for power generation in South Africa. The nuclear energy policy and strategy was approved by Cabinet in June 2008. The policy provides a framework for the development of an expanded nuclear programme. Regulations on the format of application for a nuclear installation licence, or a certificate of registration or exemption, have also been published.

Minerals

The increase in the number of mine related fatalities has raised concerns about mine health and safety. The fatality rate per million hours worked increased from 0.20 in 2006 to 0.21 in 2007. Following a presidential request to undertake an audit of mine safety, the department completed audits of 333 high risk mines in 2007/08. Despite the increase in fatalities, there has been some improvement in the injury rate per million hours worked, which decreased from 4.14 in 2006 to 3.62 in 2007. To further enforce compliance, the department has introduced amendments to the Mine Health and Safety Act (1996). The amendments aim to establish the Mine Health and Safety Inspectorate as a juristic entity with greater investigative capacity and enforcement powers.

A downstream beneficiation strategy for the mineral sector was developed in 2008 with inputs from the interdepartmental task team. The team has been participating in the process since 2006 and its main role players are the departments of minerals and energy, trade and industry, science and technology and National Treasury.

Selected performance and operations indicators

Table 28.1 Minerals and Energy

Indicator	Programme	Past			Current	Projections		
		2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Number of occupational health and safety inspections and mine audits conducted each year	Promotion of Mine Safety and Health	14 549	16 354	12 700	12 700	12 700	12 700	12 700
Number of mining rights granted to historically disadvantaged South Africans each year	Mineral Regulation	–	–	42	27	27	27	27
Number of women led companies licensed each year	Mineral Regulation	–	49	18	18	18	18	18
Number of charter inspections conducted each year	Mineral Regulation	–	–	160	140	140	140	140
Number of small to medium mining enterprises supported each year	Mineral Policy and Promotion	15	18	38	45	48	48	48
Number of random site inspections conducted each year	Hydrocarbons and Energy Planning	–	–	360	1 200	1 800	1 920	2 040
Number of sites where fuel samples were taken each year	Hydrocarbons and Energy Planning	–	–	60	120	120	120	120
Number of compliance audit certificates issued each year	Hydrocarbons and Energy Planning	–	–	–	4	4	4	4
Number of operational integrated energy centres each year	Hydrocarbons and Energy Planning	2	5	5	3	2	2	2
Number of new households electrified each year	Associated Services	185 833	122 711	187 925	150 000	150 000	200 000	250 000
Number of new schools electrified each year	Associated Services	1623	372	948	2 500	2 500	0	0
Number of new bulk substations built each year	Associated Services	–	–	9	10	10	10	10
Number of temporary jobs created each year	Associated Services	2 327	4 729	5 035	4 500	4 500	4 500	4 500
Number of full time jobs created each year	Associated Services	259	526	559	500	500	500	500
Number of learners participating in electrification projects each year	Associated Services	1 553	1 389	1 599	800	800	800	800
Amount of broad based black economic empowerment (BEE) and black women-owned and small, medium and micro enterprise (SMME) expenditure generated by the integrated national electrification programme each year	Associated Services	R453.5m	R560.m	R894m	R933m	R933m	R1.2bn	R1.2bn
Number of subsidised renewable energy projects each year	Electricity, Nuclear, Clean Energy	0	0	3	3	4	6	8
Number of green certificates issued each year	Electricity, Nuclear, Clean Energy	0	0	0	0	0	2	5

Expenditure estimates

Table 28.2 Minerals and Energy

Programme	Audited outcome			Adjusted appropriation	Revised estimate	Medium-term expenditure estimate		
	2005/06	2006/07	2007/08	2008/09		2009/10	2010/11	2011/12
R million								
1. Administration	130.8	152.8	191.4	220.5	220.5	229.3	251.7	267.0
2. Promotion of Mine Safety and Health	99.0	105.1	104.3	127.0	127.0	133.0	142.7	151.2
3. Mineral Regulation	84.0	129.3	137.8	162.1	162.1	168.1	186.2	197.3
4. Mineral Policy and Promotion	84.3	75.3	73.6	64.9	64.9	62.4	67.1	71.0
5. Hydrocarbons and Energy Planning	20.6	31.2	35.6	45.9	45.9	55.3	60.5	64.1
6. Electricity, Nuclear and Clean Energy	82.1	65.0	86.7	261.4	261.4	338.4	458.0	563.9
7. Associated Services	1 690.8	2 048.9	2 318.0	2 904.4	2 803.1	3 660.8	3 940.3	4 124.5
Total	2 191.6	2 607.7	2 947.4	3 786.2	3 685.0	4 647.2	5 106.5	5 439.0
Change to 2008 Budget estimate				190.8	89.6	329.0	517.3	671.2

Table 28.2 Minerals and Energy (continued)

R million	Audited outcome			Adjusted appropriation	Revised estimate	Medium-term expenditure estimate		
	2005/06	2006/07	2007/08	2008/09		2009/10	2010/11	2011/12
Economic classification								
Current payments	417.9	501.0	573.4	654.3	654.3	678.6	756.2	801.5
Compensation of employees	217.1	246.2	290.6	349.1	349.1	394.3	426.1	451.3
Goods and services	200.8	254.7	277.2	305.2	305.2	284.3	330.1	350.1
of which:								
Administrative fees	2.1	2.9	1.5	26.6	26.6	34.8	38.0	41.7
Advertising	2.7	11.3	18.3	18.7	18.7	16.1	17.2	18.0
Assets less than R5 000	3.0	3.6	2.3	3.2	3.2	3.7	3.9	4.1
Audit costs: External	2.1	2.2	2.4	2.5	2.5	2.6	2.8	2.9
Bursaries (employees)	1.0	1.1	1.7	2.6	2.6	2.9	3.0	3.2
Catering: Departmental activities	0.6	2.3	2.5	3.3	3.3	2.4	2.6	2.7
Communication	11.0	11.7	12.9	7.5	7.5	12.0	14.1	14.7
Computer services	5.9	10.0	9.5	29.6	29.6	26.9	28.3	29.6
Consultants and professional services:	67.9	56.0	39.9	10.8	10.8	3.3	21.6	23.4
Business and advisory services								
Consultants and professional services:	4.2	34.8	36.0	61.6	61.6	58.5	65.3	69.7
Infrastructure and planning								
Consultants and professional services:	1.4	2.1	5.7	2.4	2.4	2.0	2.3	2.4
Legal costs								
Contractors	1.3	2.9	8.3	11.1	11.1	7.5	7.8	8.1
Agency and support / outsourced services	0.0	0.3	0.0	13.6	13.6	15.4	17.9	18.7
Entertainment	1.3	0.3	–	0.4	0.4	0.4	0.4	0.4
Inventory: Learner and teacher support material	–	–	–	0.7	0.7	0.7	0.7	0.7
Inventory: Other consumables	0.2	0.2	0.1	0.4	0.4	0.5	0.5	0.5
Inventory: Stationery and printing	3.6	4.8	4.7	9.4	9.4	8.9	9.4	9.9
Lease payments	21.5	25.1	23.4	3.0	3.0	2.1	2.2	2.3
Owned and leasehold property expenditure	0.8	1.0	3.5	1.0	1.0	1.1	1.2	1.2
Travel and subsistence	53.7	64.9	73.4	64.7	64.7	52.0	59.0	62.3
Training and development	2.9	2.1	5.0	7.3	7.3	7.8	8.2	8.5
Operating expenditure	9.8	11.0	15.2	14.7	14.7	14.0	14.8	15.4
Venues and facilities	3.7	4.1	10.8	9.6	9.6	8.1	8.5	8.9
Financial transactions in assets and liabilities	0.0	0.1	5.6	–	–	–	–	–
Transfers and subsidies	1 768.4	2 099.9	2 366.5	3 120.2	3 019.0	3 957.4	4 338.2	4 624.5
Provinces and municipalities	298.2	390.9	462.5	595.6	494.4	1 108.0	1 240.1	1 376.6
Departmental agencies and accounts	204.2	206.2	262.1	257.2	257.2	270.0	282.7	220.2
Public corporations and private enterprises	1 264.9	1 500.5	1 639.8	2 266.0	2 266.0	2 578.2	2 814.0	3 026.2
Households	1.1	2.3	2.1	1.3	1.3	1.3	1.4	1.5
Payments for capital assets	5.3	6.8	7.5	11.7	11.7	11.2	12.1	13.0
Machinery and equipment	4.3	6.4	5.3	9.4	9.4	9.7	10.5	11.4
Software and other intangible assets	1.1	0.1	2.2	1.5	1.5	1.5	1.6	1.7
Land and subsoil assets	–	0.2	–	0.8	0.8	–	–	–
Total	2 191.6	2 607.7	2 947.4	3 786.2	3 685.0	4 647.2	5 106.5	5 439.0

Expenditure trends

Expenditure increased from R2.2 billion in 2005/06 to R3.8 billion in 2008/09 at an average annual rate of 20 per cent. This increase is driven by transfers and subsidies in the *Associated Services* programme, which rises from R1.7 billion to R2.9 billion over the same period. In 2008/09, transfer payments to public entities, municipalities and other organisations accounted for an average of 82 per cent of the department's total expenditure.

Spending on compensation of employees increased from R217.1 million in 2005/06 to R349.1 million in 2008/09 at an average annual rate of 17.2 per cent. Similarly, expenditure on goods and services increased from R201 million in 2005/06 to R305 million in 2008/09 at an average annual rate of 15 per cent. These increases are due to provisions for additional staff members and related expenditure.

Over the MTEF period, overall spending for the department is expected to grow from R3.8 billion in 2008/09 to an estimated R5.4 billion in 2011/12 at an average annual rate of 12.8 per cent. Growth in the budget is driven by payments to municipalities, public entities and other government agencies and is expected to increase from R3.1 billion in 2008/09 to an estimated R4.6 billion in 2011/12 at an average annual rate of 14 per cent. This is due to growth in the integrated national electrification programme for the electrification of households, schools and clinics.

Over the MTEF period, additional funding of R260 million, R55 million and R45 million is allocated for the demand side electricity management project, the renewable energy subsidy scheme and the renewable Working for Energy project.

Savings and reprioritisation

The department implemented cost containment initiatives over the MTEF period that produced total savings of R150.4 million (R45.3 million in 2009/10, R51.3 million in 2010/11 and R53.7 million in 2011/12) mainly from goods and services and transfers to departmental agencies.

In aggregate, savings amounting to R29.2 million in 2009/10, R26.2 million in 2010/11 and R27 million in 2011/12 have been identified in goods and services expenditure and transfer payments to public entities.

Infrastructure spending

The integrated national electrification programme consists of transfer payments to municipalities, Eskom and non-grid service providers for grid and non-grid electricity connections to schools, clinics and households. Transfer payments in relation to the programme accounted for an average of 51 per cent of the department's total expenditure between 2005/06 and 2008/09.

Additional allocations of R194 million for municipalities and R331 million for Eskom are reflected in the projected increase in capital infrastructure transfers for the implementation of the programme under the *Associated Services* programme over the MTEF period.

The total allocation for electrification was R1.6 billion for both grid and non-grid connections in 2007/08. The targets set for grid electrification were 150 000 household connections, 700 school connections and all clinics.

Departmental receipts

The main sources of receipts for the Department of Minerals and Energy are royalties, surface rental and prospecting fees collected from mining companies. Combined, these made up on average 92 per cent of total annual departmental revenue between 2004/05 and 2007/08. The exception was in 2006/07, when transfers received contributed 72 per cent of revenue because of non-departmental revenue of R466.5 million from the sale of assets from the Lebowa Mineral Trust. Actual revenue recoveries for 2007/08 were higher than anticipated, mainly due to an increase in royalty payments from individual mines. Royalties, surface rental, prospecting fees and petroleum licences are projected to continue to be the main source of receipts over the MTEF period, and departmental revenue is expected to increase from R217 million in 2009/10 to R247 million in 2011/12.

The Petroleum Products Amendment Act (2003) requires licensees to pay licence application and annual licence renewal fees, including amendment fees, for all licence types. To date, approximately 13 800 applications have been received and approximately 7 500 processed. Data from the petroleum product licensing system has been used as a benchmark to estimate the revenue to be collected by the end of 2008/09: R8.6 million for application and renewal fees from previous years and about R3.7 million as annual fees. This amount is set to remain stable in future years.

Table 28.3 Departmental receipts

R thousand	Audited outcome			Adjusted estimate	Revised estimate	Medium-term receipts estimate		
	2005/06	2006/07	2007/08	2008/09		2009/10	2010/11	2011/12
Departmental receipts	133 611	191 027	268 305	198 120	199 875	203 132	209 234	215 519
Sales of goods and services produced by department	2 510	1 809	3 358	4 498	4 797	4 691	4 834	4 980
Sales of scrap, waste, arms and other used current goods	3	3	4	2	3	1	1	1
Fines, penalties and forfeits	276	458	218	120	142	140	144	149
Interest, dividends and rent on land	129 800	188 515	244 126	190 000	192 246	197 915	203 858	209 981
Financial transactions in assets and liabilities	1 022	242	20 599	3 500	2 687	385	397	408
Extraordinary receipts	–	466 511	–	–	–	–	–	–
Lebowa Minerals trust abolition	–	466 511	–	–	–	–	–	–
Total	133 611	657 538	268 305	198 120	199 875	203 132	209 234	215 519

Programme 1: Administration

Expenditure estimates

Table 28.4 Administration

Subprogramme	Audited outcome			Adjusted appropriation	Medium-term expenditure estimate		
	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
R million							
Minister ¹	0.9	0.8	1.1	1.6	1.7	1.8	1.9
Deputy Minister ¹	0.6	0.2	–	1.3	1.4	1.5	1.6
Management	10.2	12.4	14.5	16.8	18.3	19.1	20.3
Corporate Services	99.8	118.5	155.3	176.4	180.9	199.5	211.6
Property Management	19.2	20.8	20.5	24.4	26.9	29.7	31.6
Total	130.8	152.8	191.4	220.5	229.3	251.7	267.0
Change to 2008 Budget estimate				11.0	(2.3)	(1.6)	(1.6)

1. From 2008/09, the current payments relating to the total remuneration package of political office bearers are shown, before this only salary and car allowances are included. Administrative and other subprogramme expenditure may in addition include payments for capital as well as transfers and subsidies.

Table 28.4 Administration (continued)

R million	Audited outcome			Adjusted appropriation	Medium-term expenditure estimate		
	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Economic classification							
Current payments	124.4	145.7	183.1	208.7	217.3	238.6	253.0
Compensation of employees	45.6	50.7	68.9	84.0	93.5	104.8	111.1
Goods and services	78.7	94.9	108.6	124.7	123.8	133.8	142.0
of which:							
Administrative fees	0.6	1.7	0.4	25.4	26.9	29.7	33.0
Advertising	0.5	0.9	1.2	1.6	1.4	1.5	1.5
Assets less than R5 000	2.2	2.0	2.1	2.6	2.8	2.9	3.0
Audit costs: External	2.1	2.2	2.4	2.5	2.6	2.8	2.9
Bursaries (employees)	0.6	1.0	0.9	1.6	1.8	1.8	1.9
Catering: Departmental activities	–	1.3	1.4	1.5	1.4	1.5	1.6
Communication	5.6	6.1	6.5	1.7	5.8	7.1	7.4
Computer services	5.9	10.0	9.4	25.3	26.5	27.9	29.2
Consultants and professional services:	7.1	6.1	7.6	3.1	1.7	3.5	3.6
Business and advisory services							
Consultants and professional services:	0.8	0.7	1.5	2.1	0.9	0.9	1.0
Legal costs							
Contractors	0.7	2.5	7.9	7.7	7.0	7.2	7.5
Agency and support / outsourced services	–	0.3	–	4.0	4.8	5.0	5.3
Entertainment	1.0	0.2	–	0.2	0.2	0.2	0.2
Inventory: Stationery and printing	2.9	4.4	4.1	7.5	7.1	7.4	7.8
Lease payments	21.1	24.4	22.9	1.5	1.6	1.7	1.7
Owned and leasehold property expenditure	0.5	0.9	3.3	0.9	1.0	1.1	1.1
Travel and subsistence	19.9	23.5	25.4	23.2	18.1	18.8	19.6
Training and development	2.9	2.1	3.1	5.0	5.2	5.5	5.7
Operating expenditure	2.8	3.6	3.7	3.3	3.3	3.5	3.6
Venues and facilities	1.3	0.9	4.5	3.6	3.5	3.7	3.9
Financial transactions in assets and liabilities	0.0	0.1	5.6	–	–	–	–
Transfers and subsidies	1.4	1.2	1.0	1.4	1.3	1.4	1.5
Provinces and municipalities	0.1	0.0	0.0	–	–	–	–
Public corporations and private enterprises	0.1	–	–	–	–	–	–
Non-profit institutions	–	–	–	0.1	–	–	–
Households	1.1	1.1	1.0	1.3	1.3	1.4	1.5
Payments for capital assets	5.1	5.9	7.4	10.4	10.7	11.6	12.5
Machinery and equipment	4.0	5.5	5.2	8.9	9.2	10.1	10.9
Software and other intangible assets	1.1	0.1	2.2	1.5	1.5	1.6	1.7
Land and subsoil assets	–	0.2	–	–	–	–	–
Total	130.8	152.8	191.4	220.5	229.3	251.7	267.0

Expenditure trends

Overall expenditure for the *Administration* programme increased from R130.8 million in 2005/06 to R220.5 million in 2008/09 at an average annual rate of 19 per cent. The increase is due to the restructuring of the department. As a result, expenditure on the *Corporate Services* subprogramme rose from R99.8 million in 2005/06 to R176.4 million in 2008/09 at an average annual rate of 20.9 per cent.

Expenditure is expected to rise over the MTEF period from R220.5 million in 2008/09 to an estimated R267 million in 2011/12 at an average annual rate of 6.6 per cent. Over the MTEF period, the major spending

items within the programme are travel and subsistence, transport, inventory, computer services and accommodation lease payments.

Programme 2: Promotion of Mine Health and Safety

- *Governance Policy and Oversight* develops policy and legislation. Funding will mainly be used for compensation of employees and related expenditure on goods and services.
- *Mine Health and Safety (Regions)* is responsible for mine surveying, and legal and engineering expertise and inspections services at regional offices. Funding will mainly be used for compensation of employees and related expenditure on goods and services.

Objectives and measures

- Contribute to the reduction of mining related deaths, injuries and ill health by:
 - reviewing the Mine Health and Safety Act (1996) along with supporting regulations, and aligning it with changes in the mining sector each year
 - monitoring compliance with mining safety and health standards by increasing mine inspections from 10 000 to 12 700 and conducting 700 audits each year.

Service delivery and spending focus

Three new support units (the technical support unit, policy unit and support services unit) were established in April 2007 to strengthen the core functions of the Mine Health and Safety Inspectorate. The technical support unit will facilitate appeals in terms of section 20 of the Mine Health and Safety Act (1996) on the fitness of an employee in the mining sector to perform work, collate and disseminate results from occupational health and safety research, and analyse and benchmark occupational health and safety statistics. The policy unit will develop internal enforcement guidelines, review legislation, and conduct policy studies. The support services unit provides support, training and advice to small scale miners on mining health and safety issues and raises awareness on mine health and safety standards for mines. The final restructuring of the Mine Health and Safety Inspectorate, which will improve the department's ability to improve compliance with health and safety standards, was implemented in May 2007. This includes the services of the medical inspector to facilitate appeals against an employer's decision that an employee is unfit to perform work. The benefits include a simplified fines system, a stronger section for offences and penalties and more consistency with other legislation such as the Mineral Petroleum Resources Development Act (2002). The Mine Health and Safety Inspectorate is also empowered to grant health and safety permits.

23 learner inspectors (10 women and 13 men) have been appointed, and began their 2-year training internship at the Gold Fields Academy in August 2007. The department will fund 8 more engineering, surveying and mining bursaries, increasing the Mine Health and Safety Inspectorate's total number of bursary holders from the current 8 (5 women and 3 men) to 16, once new bursary holders have been selected.

Expenditure estimates

Table 28.5 Promotion of Mine Safety and Health

Subprogramme	Audited outcome			Adjusted appropriation	Medium-term expenditure estimate		
	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
R million							
Governance Policy and Oversight	38.5	52.7	36.3	50.2	51.6	57.6	61.1
Mine Health and Safety (Regions)	60.5	52.4	68.0	76.8	81.4	85.0	90.1
Total	99.0	105.1	104.3	127.0	133.0	142.7	151.2
Change to 2008 Budget estimate				(2.8)	(2.4)	(3.6)	(3.9)

Table 28.5 Promotion of Mine Safety and Health (continued)

R million	Audited outcome			Adjusted appropriation	Medium-term expenditure estimate		
	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Economic classification							
Current payments	94.3	100.2	99.5	121.6	127.5	136.9	145.0
Compensation of employees	75.3	77.2	79.6	97.3	103.9	108.8	115.3
Goods and services	19.0	22.9	19.8	24.4	23.5	28.0	29.7
of which:							
Administrative fees	0.5	0.3	0.2	0.7	0.8	0.8	0.8
Advertising	0.5	0.5	1.2	0.5	0.6	0.6	0.6
Bursaries (employees)	0.1	0.0	0.5	0.5	0.5	0.5	0.5
Communication	1.1	1.1	1.0	1.1	1.1	1.6	1.7
Consultants and professional services: Business and advisory services	4.8	7.5	1.5	0.3	0.4	0.4	0.4
Agency and support / outsourced services	0.0	0.0	–	2.6	2.2	3.7	3.9
Travel and subsistence	10.8	12.4	13.0	15.4	14.6	16.8	17.9
Training and development	0.0	0.0	1.5	1.6	1.7	1.8	1.9
Operating expenditure	0.4	0.5	0.1	0.4	0.4	0.5	0.5
Transfers and subsidies	4.4	4.8	4.8	4.9	5.1	5.4	5.7
Provinces and municipalities	0.2	0.1	–	–	–	–	–
Departmental agencies and accounts	4.2	4.5	4.7	4.9	5.1	5.4	5.7
Households	–	0.3	0.1	–	–	–	–
Payments for capital assets	0.2	0.1	0.0	0.4	0.5	0.5	0.5
Machinery and equipment	0.2	0.1	0.0	0.4	0.5	0.5	0.5
Total	99.0	105.1	104.3	127.0	133.0	142.7	151.2
Details of selected transfers and subsidies							
Departmental agencies and accounts							
Departmental agencies (non-business entities)							
Current	4.2	4.5	4.7	4.9	5.1	5.4	5.7
Mine Health and Safety Council	4.2	4.5	4.7	4.9	5.1	5.4	5.7

Expenditure trends

Expenditure increased from R99 million in 2005/06 to R127 million in 2008/09 at an average annual rate of 8.6 per cent. The increase relates to annual inflation and salary adjustments and the restructuring of the Mine Health and Safety Inspectorate. Compensation of employees increased from R75.3 million to R97.3 million between 2005/06 and 2008/09 at an average annual rate of 8.9 per cent. In 2008/09, compensation of employees accounted for 77 per cent of the programme's total annual expenditure, reflecting the labour intensive nature of many of the department's functions. These include mine surveying, engineering, and inspection and support functions.

Expenditure is projected to continue to rise over the MTEF period from R127 million in 2008/09 to an estimated R151.2 million in 2011/12, at an average annual rate of 6 per cent.

Programme 3: Mineral Regulation

- *Management.* Funding will mainly be used for compensation of employees and related expenditure on goods and services.
- *Mineral Regulation and Administration* is responsible for the administration of prospecting and mining rights, licensing, and compliance with the Mineral and Petroleum Resources Development Act (2002), including mine environmental compliance. Funding will mainly be used for compensation of employees and related expenditure on goods and services.

Objectives and measures

- Contribute to broad based black economic empowerment (BEE) and transformation in the minerals and mining sector by issuing 27 new mining rights a year to historically disadvantaged South Africans.
- Contribute to sustainable development in the minerals and mining sector by conducting 1 380 environmental compliance inspections and 140 charter inspections a year. (The target of the latter is lower than the previous year, but is more realistic because of the available capacity in the department to effectively conduct the inspections.)
- Promote investment and job creation in the minerals and mining sector by processing mining and prospecting rights applications within the specified timeframes.

Service delivery and spending focus

The *Mineral Regulation* programme primarily processes applications for prospecting and mining rights to achieve economic transformation and sustainable development within the mining sector. The more applications that are processed, the more prospecting is able to happen. The department's national mining promotion system, implemented in 2005/06, will make processing more efficient. New applications are entered into the system at regional offices and spatial information is loaded before a decision to accept or reject an application can be taken. This ensures that new rights are not granted on existing rights. The mining titles office also validates new titles against information in the system before any rights are registered.

Promoting economic transformation within the sector is key to ensuring South Africans benefit from mining activities. By the end of March 2008, 12 844 prospecting and mining rights of the 15 884 applications received were accepted. Of the 12 844 accepted applications, 6 949 were processed. Of the 6 949 processed applications 4 529 were issued and 2 420 were refused. Of the 4 529 issued 3 893 were granted after financial provisioning for rehabilitation in terms of the Mineral and Petroleum Resources Development Act (2002).

The department is also committed to reducing government's environmental liability and minimising the pollution impact of the mining sector. It regulates the sector by encouraging compliance with sound environmental practices. In 2008/09, 407 environmental inspections were conducted against the planned 1 380. Of the 160 planned charter inspections, 34 were completed by July 2008. In both cases, the deviation between target and performance was because of a lack of capacity.

The department exceeded its target by issuing 42 new rights to historically disadvantaged individuals and 15 licences to women led companies by July 2008. The conversion of old order mining rights remains a challenge, mainly due to non-compliance with the Mining Charter, with only 24 per cent of applications received being finalised. This situation arose because the legislation does not empower the department to cancel existing mining rights in instances where there is non-compliance with the Mineral and Petroleum Resources Development Act (2002).

Expenditure estimates

Table 28.6 Mineral Regulation

Subprogramme	Audited outcome			Adjusted appropriation	Medium-term expenditure estimate		
	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
R million							
Management	3.9	13.4	7.1	5.5	5.6	5.9	6.2
Mineral Regulation and Administration	80.1	115.9	130.7	156.6	162.4	180.3	191.1
Total	84.0	129.3	137.8	162.1	168.1	186.2	197.3
Change to 2008 Budget estimate				(5.0)	(4.6)	(4.5)	(4.8)

Table 28.6 Mineral Regulation (continued)

R million	Audited outcome			Adjusted appropriation	Medium-term expenditure estimate		
	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Economic classification							
Current payments	83.9	128.2	136.9	162.1	168.1	186.2	197.3
Compensation of employees	53.5	59.9	66.5	76.0	85.2	93.3	98.8
Goods and services	30.4	68.2	70.4	86.1	82.8	92.9	98.5
<i>of which:</i>							
Administrative fees	0.5	0.0	0.1	0.3	0.3	0.3	0.3
Advertising	0.7	7.5	13.4	14.1	12.5	13.1	13.8
Assets less than R5 000	0.6	1.3	0.1	0.4	0.4	0.4	0.4
Communication	3.5	3.8	4.5	3.5	3.7	3.9	4.1
Consultants and professional services: Business and advisory services	6.0	8.1	0.0	0.0	0.0	0.0	0.0
Consultants and professional services: Infrastructure and planning	4.2	34.8	35.1	53.9	52.5	59.0	63.1
Consultants and professional services: Legal costs	0.5	1.4	3.8	0.2	0.2	0.3	0.3
Lease payments	0.3	0.5	0.4	0.4	0.5	0.5	0.5
Travel and subsistence	11.4	9.5	11.6	9.9	9.2	11.6	12.1
Operating expenditure	0.7	0.3	0.1	0.8	0.8	0.9	0.9
Venues and facilities	0.3	0.5	0.6	1.2	1.3	1.3	1.4
Transfers and subsidies	0.1	0.9	0.9	–	–	–	–
Provinces and municipalities	0.1	0.0	–	–	–	–	–
Households	–	0.8	0.9	–	–	–	–
Payments for capital assets	–	0.3	0.0	–	–	–	–
Machinery and equipment	–	0.3	0.0	–	–	–	–
Total	84.0	129.3	137.8	162.1	168.1	186.2	197.3

Expenditure trends

Overall expenditure for the *Mineral Regulation* programme increased from R84 million in 2005/06 to an estimated R162.1 million in 2008/09 at an average annual rate of 24.5 per cent. The increase is due to the expansion of administrative and regulatory services as a result of the ongoing implementation of the Minerals and Petroleum Resources Development Act (2002).

Expenditure is projected to rise over the MTEF period from R162.1 million in 2008/09 to an estimated R197.3 million in 2011/12 at an average annual rate of 6.8 per cent, taking into account inflation and annual salary increases. Consulting services and contractors associated with the rehabilitation of derelict and ownerless mines account for an average annual 32 per cent of expenditure in the programme. Expenditure on goods and services over the medium term is projected to grow at an average annual rate of 4.6 per cent, from R86.1 million in 2008/09 to R98.5 million 2011/12.

Programme 4: Mineral Policy and Promotion

- *Management.*
- *Mineral Policy* develops new policies, reviews existing policies and amends legislation to achieve transformation in the minerals and mining industry.
- *Mineral Promotion* promotes mineral development and provides advice on trends in the mining industry to attract investment.

Funding for all subprogrammes will mainly be used for compensation of employees and related expenditure on goods and services.

Objectives and measures

- Promote South Africa's mining and mineral industry to attract investment across the commodities value chain by:
 - disseminating meaningful information on the South African mining industry to prospective investors and industry stakeholders by producing 23 publications in 2009/10, 28 in 2010/11 and 28 in 2011/12
 - participating in at least 11 exhibitions and local and international conferences per year over the MTEF period
 - establishing and supporting 144 small scale mining and minerals beneficiation projects by assisting them with business plans, marketing strategies, product development and positioning by 2011/12
 - promulgating the amended Minerals and Petroleum Resource Development Act (2002) and assessing the socioeconomic impact of the Mining Charter by 2009/10.

Service delivery and spending focus

The South African Diamonds and Precious Metals Regulator and the State Diamond Trader were launched in February 2008. An average of 20 enquiries per week were received about diamond cutting and polishing projects, indicating an increased awareness of the benefits of minerals beneficiation, partly as a result of the department's promotional efforts. The Mineral and Petroleum Resources Development Amendment Bill was approved by the National Council of Provinces in October 2008 and aims to align the act with the provisions of the National Environmental Management Act (1998), to promote sound environmental practices in the mining sector.

The Department of Minerals and Energy has continued to support the small, medium and micro enterprise (SMME) sector through small scale mining and beneficiation projects. In 2007/08, 38 SMMEs were given financial and technical assistance. Feasibility studies were concluded for 16 viable beneficiation projects, including the Olifantsfontein jewellery cluster, a public private partnership project. The cluster will comprise a profit driven jewellery design and manufacturing facility, internship training for postgraduates, and an incubation system for SMME development. The cluster will provide a secure environment with the necessary infrastructure and technical support, where trainees and SMMEs will benefit from the centralised services.

In support of its mine rehabilitation efforts, the department has developed two draft strategies: the first is for the management of derelict and ownerless mines, which includes an implementation plan; the second outlines the process and conditions for mine closures in the gold mining areas of the Witwatersrand and Klerksdorp, Orkney, Stilfontein and Hartbeesfontein.

Expenditure estimates

Table 28.7 Mineral Policy and Promotion

Subprogramme	Audited outcome			Adjusted appropriation	Medium-term expenditure estimate		
	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
R million							
Management	4.8	7.6	5.3	7.2	5.4	5.8	6.1
Mineral Policy	47.5	23.7	20.4	5.9	8.4	9.1	9.6
Mineral Promotion	32.0	44.0	47.8	51.9	48.5	52.2	55.4
Total	84.3	75.3	73.6	64.9	62.4	67.1	71.0
Change to 2008 Budget estimate				7.4	2.2	2.3	2.4

Table 28.7 Mineral Policy and Promotion (continued)

R million	Audited outcome			Adjusted appropriation	Medium-term expenditure estimate		
	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Economic classification							
Current payments	17.9	31.5	35.1	40.9	37.3	40.9	43.2
Compensation of employees	15.6	20.0	22.1	24.2	29.3	31.0	32.7
Goods and services	2.3	11.4	13.0	16.7	8.0	9.9	10.5
<i>of which:</i>							
Advertising	–	0.7	0.4	0.3	0.2	0.2	0.3
Communication	0.3	0.2	0.2	0.6	0.7	0.7	0.8
Computer services	–	–	0.1	1.7	0.0	0.0	0.0
Consultants and professional services: Business and advisory services	0.7	3.0	3.0	2.0	0.2	0.2	0.2
Contractors	0.0	0.1	0.0	2.9	0.0	0.0	0.0
Agency and support / outsourced services	–	0.0	–	0.6	0.5	0.5	0.6
Inventory: Learner and teacher support material	–	–	–	0.2	0.2	0.2	0.2
Inventory: Stationery and printing	0.0	0.1	0.3	1.1	1.2	1.3	1.4
Lease payments	0.0	0.0	0.0	1.0	–	–	–
Travel and subsistence	0.9	4.9	6.4	3.5	2.4	4.0	4.3
Training and development	0.0	–	0.0	0.3	0.3	0.3	0.4
Venues and facilities	0.1	1.4	1.4	1.2	0.7	0.8	0.8
Transfers and subsidies	66.3	43.8	38.5	24.0	25.1	26.2	27.8
Provinces and municipalities	0.1	0.0	–	–	–	–	–
Departmental agencies and accounts	44.3	31.1	30.9	–	–	–	–
Public corporations and private enterprises	22.0	12.7	7.5	24.0	25.1	26.2	27.8
Households	–	0.1	0.1	–	–	–	–
Payments for capital assets	–	0.0	0.0	–	–	–	–
Machinery and equipment	–	0.0	0.0	–	–	–	–
Total	84.3	75.3	73.6	64.9	62.4	67.1	71.0
Details of selected transfers and subsidies							
Departmental agencies and accounts							
Departmental agencies (non-business entities)							
Current	44.3	31.1	30.9	–	–	–	–
Council for Geoscience: Unsafe shafts and holdings	15.6	–	–	–	–	–	–
Council for Geoscience: Mine environmental research and development	8.1	9.3	8.0	–	–	–	–
Council for Geoscience: Small scale mining	20.6	21.8	22.9	–	–	–	–
Public corporations and private enterprises							
Public corporations							
Subsidies on production or products							
Current	–	–	–	24.0	25.1	26.2	27.8
Industrial Development Corporation of South Africa: Small scale mining	–	–	–	24.0	25.1	26.2	27.8
Public corporations and private enterprises							
Public corporations							
Other transfers							
Current	22.0	10.7	7.5	–	–	–	–
Council for Science and Industrial Research: Mine environmental research and development	14.0	5.3	3.8	–	–	–	–
Council for Mineral Technology Research: Mine environmental research and development	8.0	5.4	3.7	–	–	–	–

Expenditure trends

Overall expenditure for the *Mineral Policy and Promotion* programme decreased at an average annual rate of 8.3 per cent from R84.3 million in 2005/06 to R65 million in 2008/09. The higher expenditure in 2005/06 of R84.3 million was due to funds being shifted from the *Minerals Regulation* programme to the *Mineral Policy and Promotion* programme to cater for a three-year mine environmental research and development project. The project was subsequently completed in 2007/08, with a resultant decrease in expenditure in 2008/09.

Expenditure is projected to grow over the MTEF period from R65 million in 2008/09 to an estimated R71 million in 2011/12, at an average annual rate of 3 per cent, in line with inflationary increases.

Programme 5: Hydrocarbons and Energy Planning

- *Hydrocarbons and Energy Planning Management* provides overall management of the programme.
- *Energy Planning* promotes the sustainable use of energy resources through integrated energy planning.
- *Hydrocarbons* develops policies and regulations to manage the petroleum, coal, and natural gas sectors. The Controller of Petroleum Products administers and issues petroleum licenses, and monitors and enforces license conditions.

Funding for all subprogrammes will mainly be used for compensation of employees and related expenditure on goods and services.

Objectives and measures

- Ensure sustainable supply and demand of energy, while taking into account macroeconomic factors, environmental considerations and energy infrastructural development, by developing the integrated energy plan by March 2011.
- Improve the security of energy supply by fostering investments in storage for liquid fuels through the development of the strategic stocks policy by March 2009.
- Promote gas as an alternative source of energy in South Africa by developing a pricing policy and licensing regulations for the supply and distribution of liquid petroleum gas by October 2009, which will enable fuel switching as a demand management mechanism for electricity.
- Encourage research and development for energy related technologies with a key focus on energy efficiency and mitigation of greenhouse gases by establishing the South African National Energy Development Institute by September 2009.
- Ensure access to affordable energy sources and services by increasing the number of operational integrated energy centres from 6 to 9 before March 2010.
- Strengthen the regulatory framework in the petroleum products industry by ringfencing regulated products by implementing the regulatory accounting system before March 2010.
- Create an enabling environment for the diversification of fuel sources by developing and implementing a predictable and stable regulatory regime by introducing maximum pricing for petrol, diesel, paraffin, liquid petroleum gas and biofuels revised magisterial district zones by December 2009.
- Improve the security of energy supply through integrated planning by developing and implementing a national integrated energy modelling system by March 2011.

Service delivery and spending focus

The National Energy Act (2008) represents a major step towards improving integrated planning and energy efficient utilisation and promoting investment in the sector. The act provides for integrated planning with the energy sector. The department aims to improve its modelling and analytical capacity by implementing a national integrated energy modelling system. Over the past year, work has been done on calibrating the national integrated energy modelling system and building specialised skills in the field of energy modelling. Information from the system will be collated, consolidated and published as the first integrated energy plan by the end of 2010/11.

Implementation of the 2007 energy security master plan for liquid fuels has started. As part of the inception process, a project inception report has been approved by all relevant stakeholders. The report will guide the industry's implementation of the master plan for liquid fuels. Over the medium term, the department will develop a number of enabling policies including the security of supply strategy, and a regulatory accounting framework for the industry.

Effective petroleum licensing system is a prerequisite for the department to effectively regulate prices along with health, safety and environmental compliance with the petroleum sector. The Petroleum Products Amendment Act (2003) requires licensees to pay licence application and annual licence renewal fees, including amendment fees, for all licence types. Approximately 13 800 applications have been received, and approximately 7 500 processed. Data from the petroleum product licensing system has been used as a benchmark to estimate the revenue to be collected by the end of 2008/09: R8.6 million for application and renewal fees from previous years and about R3.7 million as annual fees. This amount is envisaged to remain constant for the foreseeable future.

The Ratlou Integrated Energy Centre was launched in August 2008 in Makgobistad, North West. It is aimed at providing access to energy sources and other basic services to surrounding villages. Petroleum products are sourced directly from the oil company, thus cutting intermediary costs. 5 new integrated energy centres are at different stages of development.

Since the approval of the biofuels industrial strategy in December 2007, the department has developed a licensing criteria framework for prospective licensees. The first biofuels licence was issued during 2008. A financing mechanism to promote the production of biofuels will also be finalised in 2009/10.

Expenditure estimates

Table 28.8 Hydrocarbons and Energy Planning

Subprogramme	Audited outcome			Adjusted appropriation	Medium-term expenditure estimate		
	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
R million							
Hydrocarbons and Energy Planning Management	3.7	4.8	5.2	4.6	4.5	4.7	4.9
Energy Planning	5.7	6.5	8.7	10.6	14.9	17.9	18.9
Hydrocarbons	11.1	19.9	21.8	30.7	35.9	38.0	40.2
Total	20.6	31.2	35.6	45.9	55.3	60.5	64.1
Change to 2008 Budget estimate				(19.2)	(17.6)	(0.3)	(0.3)
Economic classification							
Current payments	20.5	30.8	35.6	45.9	55.3	60.5	64.1
Compensation of employees	10.2	14.1	20.4	34.5	47.0	50.9	53.9
Goods and services	10.3	16.6	15.2	11.5	8.3	9.6	10.2
of which:							
Administrative fees	0.2	0.2	0.1	0.0	0.0	0.0	0.0
Advertising	0.4	0.4	0.4	0.6	0.3	0.6	0.7
Communication	0.1	0.1	0.3	0.4	0.4	0.4	0.4
Consultants and professional services: Business and advisory services	4.7	9.2	2.3	0.9	0.8	0.9	1.0
Consultants and professional services: Infrastructure and planning	–	–	0.9	0.8	0.7	0.9	1.0
Consultants and professional services: Legal costs	–	–	–	–	0.8	0.9	0.9
Agency and support / outsourced services	0.0	0.0	–	1.9	0.8	1.2	1.2
Travel and subsistence	3.4	5.4	6.0	3.6	1.6	1.6	1.8
Operating expenditure	1.0	0.6	4.0	0.6	0.7	0.7	0.7
Venues and facilities	0.1	0.4	0.8	1.2	0.8	0.9	0.9
Transfers and subsidies	0.0	0.0	0.0	–	–	–	–
Provinces and municipalities	0.0	0.0	–	–	–	–	–
Households	–	–	0.0	–	–	–	–
Payments for capital assets	–	0.4	0.0	–	–	–	–
Machinery and equipment	–	0.4	0.0	–	–	–	–
Total	20.6	31.2	35.6	45.9	55.3	60.5	64.1

Expenditure trends

Overall expenditure for the *Hydrocarbons and Energy Planning* programme increased from R20.6 million in 2005/06 to R45.9 million in 2008/09 at an average annual rate of 30.7 per cent. The increase can be attributed to the restructuring of the programme in order to implement the Petroleum Products Amendment Act (2003). The consequent expansion of the petroleum and gas operations directorate to include the Petroleum Controller to issue licences for the liquid fuels industry resulted in increased expenditure in compensation of employees between 2005/06 and 2008/09, at an average annual rate of 50 per cent.

Expenditure is projected to continue to increase over the MTEF period, from R45.9 million in 2008/09 to R64.1 million in 2011/12, at an average annual rate of 11.8 per cent. This increase is driven by rising expenditure on compensation of employees, which grows at an average annual rate of 16.1 per cent over the MTEF period, as the *Energy Planning* subprogramme builds human resource capacity for implementation of the National Energy Act (2008).

Programme 6: Electricity, Nuclear and Clean Energy

- *Electricity and Nuclear Management* provides overall management of the programme.
- *Electricity* develops, implements and monitors electricity policy and programmes. The integrated national electrification business planning unit manages the electrification planning, funding and implementation process with the aim of addressing electrification backlogs.
- *Nuclear* aims to improve governance of the nuclear sector, specifically nuclear safety, nuclear non-proliferation and nuclear technology.
- *Clean Energy* facilitates the implementation of renewable energy technologies, and regulates and promotes clean development mechanism activities.

Funding for all subprogrammes will mainly be used for compensation of employees and related expenditure on goods and services.

Objectives and measures

- Ensure a well managed, efficient, safe and cost effective electricity and nuclear industry by:
 - implementing the nuclear energy policy over the MTEF period
 - developing and implementing a demand side management policy to save at least 1.5 TWh of electricity per year by 2010
 - regulating the security of nuclear material and facilities to reduce unauthorised access.
- Increase access to electricity by monitoring the implementation of the integrated national electrification programme, which will connect 3.2 million households by 2012.
- Facilitate the implementation of new and renewable energy technologies to meet the 2013 target of 10 000 GWh generation from clean energy sources by promoting the role of renewables in the overall energy mix
- Implement the renewable energy strategies by providing increased support through the renewable energy finance and subsidy scheme to at least four projects in 2009/10.

Service delivery and spending focus

As part of implementing the energy security master plan for electricity, the Department of Minerals and Energy developed a power conservation plan in March 2008 to deal with the electricity supply challenges. An external programme management unit was established to assist with various interventions in 2008. The unit houses all projects implemented under the power conservation plan, and monitors progress, challenges and corrective action.

The department has issued 30 authorisations related to nuclear material and equipment. The design basis threat document is used as a minimum security standard for nuclear installations and nuclear material to limit sabotage attempts and the removal of nuclear material. The International Atomic Energy Agency provided several

nuclear security training workshops in consultation with the department in 2008, increasing nuclear safety awareness.

In 2007/08, the Designated National Authority received and reviewed 40 clean development mechanism project proposals, of which 13 were registered with the clean development mechanism executive board. The projects have the potential to reduce emissions by the equivalent of 43 631 mega tonnes of carbon dioxide per year and provide 221 MW to the energy efficiency target. In 2008/09, 90 clean development mechanism projects were reviewed by the Designated National Authority, of which 15 have been registered.

The national energy efficiency strategy was published in 2005, targeting savings of 24.8 petajoules by 2008. Savings of 12.1 petajoules from completed projects were achieved by 2007. Projects in the pipeline will provide additional savings of 59 petajoules over the MTEF period.

In 2007/08, the renewable energy finance and subsidy office subsidised 4 projects amounting to R3.6 million with a total capacity of 9.6 MW. In 2008/09, the office subsidised a capacity of 14.3 MW, and it is projected that an estimated installed capacity of 20 MW will be subsidised in 2009/10.

The Department of Minerals and Energy aims to introduce tradable renewable energy certificates to provide an additional, market based revenue stream to renewable energy project developers. The national tradable renewable energy committee team was formed to facilitate establishing an issuing body for these certificates.

Expenditure estimates

Table 28.9 Electricity, Nuclear and Clean Energy

Subprogramme	Audited outcome			Adjusted appropriation	Medium-term expenditure estimate		
	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
R million							
Electricity and Nuclear Management	3.9	4.4	5.1	4.7	6.2	6.4	6.8
Electricity	59.7	41.8	53.6	41.8	36.5	54.7	58.2
Nuclear	7.7	9.7	11.1	18.2	17.2	18.1	19.0
Clean Energy	10.8	9.2	16.8	196.7	278.4	378.9	479.9
Total	82.1	65.0	86.7	261.4	338.4	458.0	563.9
Change to 2008 Budget estimate				199.4	274.3	356.3	456.0

Economic classification

	76.9	64.6	83.3	75.1	73.2	93.2	98.7
Current payments							
Compensation of employees	16.8	24.1	33.1	33.1	35.3	37.3	39.5
Goods and services	60.0	40.6	50.2	41.9	37.9	55.9	59.2
of which:							
Administrative fees	0.3	0.4	0.4	0.1	6.8	7.1	7.4
Advertising	0.5	1.3	1.7	1.6	1.1	1.1	1.2
Catering: Departmental activities	0.0	0.4	0.4	0.6	0.1	0.1	0.1
Communication	0.4	0.4	0.4	0.4	0.3	0.4	0.4
Computer services	0.0	–	–	2.3	0.1	0.1	0.1
Consultants and professional services: Business and advisory services	44.5	22.2	25.4	4.4	0.3	16.6	18.2
Consultants and professional services: Infrastructure and planning	–	–	–	6.8	5.3	5.4	5.7
Agency and support / outsourced services	–	–	–	4.5	7.1	7.5	7.8
Travel and subsistence	7.3	9.2	10.9	9.0	6.1	6.3	6.6
Training and development	0.0	–	0.2	0.3	0.5	0.5	0.5
Operating expenditure	4.5	5.5	7.0	9.3	8.5	9.0	9.4
Venues and facilities	1.8	0.8	3.4	2.1	1.4	1.5	1.6

Table 28.9 Electricity, Nuclear and Clean Energy (continued)

R million	Audited outcome			Adjusted appropriation	Medium-term expenditure estimate		
	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Transfers and subsidies	5.2	0.3	3.3	185.5	265.2	364.9	465.1
Provinces and municipalities	0.0	0.0	–	–	175.0	220.0	280.0
Departmental agencies and accounts	5.0	–	–	–	–	–	–
Public corporations and private enterprises	0.2	0.3	3.3	185.5	90.2	144.9	185.1
Households	–	–	0.0	0.0	–	–	–
Payments for capital assets	–	0.1	–	0.8	–	–	–
Machinery and equipment	–	0.1	–	–	–	–	–
Land and subsoil assets	–	–	–	0.8	–	–	–
Total	82.1	65.0	86.7	261.4	338.4	458.0	563.9
Details of selected transfers and subsidies							
Provinces and municipalities							
Municipalities							
Municipal bank accounts							
Current	–	–	–	–	175.0	220.0	280.0
Electricity Demand Side Management	–	–	–	–	175.0	220.0	280.0
Departmental agencies and accounts							
Departmental agencies (non-business entities)							
Current	5.0	–	–	–	–	–	–
Electricity Distribution Industry Holdings Company	5.0	–	–	–	–	–	–
Public corporations and private enterprises							
Public corporations							
Other transfers							
Capital	–	–	–	180.0	74.5	108.9	118.8
National energy efficiency and demand side management (Eskom) grant	–	–	–	180.0	74.5	108.9	118.8
Public corporations and private enterprises							
Private enterprises							
Other transfers							
Current	–	0.3	3.3	5.4	15.7	36.0	66.3
Renewable energy subsidy scheme	–	0.3	3.3	–	–	–	–
Renewable energy subsidy scheme	–	–	–	5.4	10.7	21.0	41.3
Renewable energy: Working for energy	–	–	–	–	5.0	15.0	25.0
Households							
Other transfers to households							
Current	–	–	0.0	0.0	–	–	–
Gifts and donations	–	–	0.0	0.0	–	–	–

Expenditure trends

Overall expenditure for the *Electricity, Nuclear and Clean Energy* programme increased from R82.1 million in 2005/06 to R261.4 million in 2008/09 at an average annual rate of 47.1 per cent. The substantive increase is due to R180 million allocated in 2008/09 in the *Clean Energy* subprogramme to cover costs related to the electricity demand side management project. The funds are earmarked for transfer to Eskom to implement the rollout of compact fluorescent light bulbs.

Expenditure is projected to continue to rise over the MTEF period from R261.4 million in 2008/09 to an estimated R563.9 million in 2011/12, at an average annual rate of 29.2 per cent. The expected growth in expenditure in this programme relates to additional funding of R260 million in 2009/10, R55 million in 2010/11 and R45 million in 2011/12 for the demand side management project, the renewable energy subsidy scheme and the Working for Energy project.

Programme 7: Associated Services

- *The Council for Mineral Technology and Research* provides research, development and technology that foster the development of businesses in the mineral and mineral products industries.
- *The Nuclear Energy Corporation of South Africa* is mandated to undertake and promote research and development in the field of nuclear energy and radiation science, and is also responsible for various institutional obligations on behalf of the state.
- *The National Nuclear Regulator* provides for the protection of persons, property and the environment against nuclear damage, by establishing safety standards and regulatory practices.
- *The Council for Geoscience* is a national agency tasked with the systematic development and maintenance of the national geosciences knowledge infrastructure for both the onshore (land) and offshore (oceans) environments.
- *The Electricity Distribution Industry Holdings* company's sole purpose is restructuring the electricity distribution industry as outlined in the 1998 White Paper on Energy Policy. It is expected to restructure the existing electricity distribution entities into six financially viable regional electricity distribution companies.
- *The Integrated National Electrification Programme* manages the electrification planning, funding and implementation process with the aim of addressing the electrification backlog to increase access to electricity.
- *Assistance to Mines* aims to prevent the uncontrollable movement of water in and out of underground mine openings or holdings in the Witwatersrand area by providing pumping subsidies to marginal mines and to undertake research to develop and implement strategic solutions for mine water management, including contaminated water.
- *The South African Diamond and Precious Metals Regulator* is responsible for issuing licences and permits to trade in diamonds, gold and platinum, and for monitoring related activities in the sector.

Expenditure estimates

Table 28.10 Associated Services

Subprogramme	Audited outcome			Adjusted	Medium-term expenditure estimate			
	2005/06	2006/07	2007/08	appropriation	2008/09	2009/10	2010/11	2011/12
R million								
Council for Mineral Technology Research	108.9	118.7	124.6	135.8	155.4	162.1	171.0	
South African Nuclear Energy Corporation	256.8	356.4	388.3	554.7	564.1	595.4	628.1	
National Nuclear Regulator	5.4	14.7	18.0	20.3	23.8	25.0	18.6	
Council for Geoscience	86.1	93.1	122.6	122.7	129.5	135.4	105.4	
Electricity Distribution Industry Holdings Company	59.2	62.8	65.9	69.3	72.2	75.6	58.5	
National Electrification Programme	1 139.2	1 365.9	1 554.5	1 920.4	2 633.3	2 860.1	3 062.9	
Assistance to Mines	35.2	37.3	24.1	41.2	43.1	45.5	47.9	
South African Diamond and Precious Metals Regulator	–	–	20.0	40.0	39.4	41.4	32.0	
Total	1 690.8	2 048.9	2 318.0	2 904.4	3 660.8	3 940.3	4 124.5	
Change to 2008 Budget estimate				–	79.4	168.6	223.3	

Economic classification

	1 690.8	2 048.9	2 318.0	2 904.4	3 660.8	3 940.3	4 124.5
Transfers and subsidies							
Provinces and municipalities	297.5	390.7	462.5	595.6	933.0	1 020.1	1 096.6
Departmental agencies and accounts	150.7	170.6	226.6	252.3	264.9	277.3	214.5
Public corporations and private enterprises	1 242.6	1 487.5	1 629.0	2 056.5	2 462.9	2 642.9	2 813.3
Total	1 690.8	2 048.9	2 318.0	2 904.4	3 660.8	3 940.3	4 124.5

Table 28.10 Associated Services (continued)

R million	Audited outcome			Adjusted appropriation	Medium-term expenditure estimate		
	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Details of selected transfers and subsidies							
Provinces and municipalities							
Municipalities							
Municipal bank accounts							
Capital	297.5	390.7	462.5	595.6	933.0	1 020.1	1 096.6
Integrated national electrification programme grant	297.5	390.7	462.5	595.6	933.0	1 020.1	1 096.6
Departmental agencies and accounts							
Departmental agencies (non-business entities)							
Current	140.2	159.7	215.3	240.4	248.7	261.0	200.3
Council for Geoscience	76.8	83.3	112.3	111.8	114.6	120.3	92.2
Electricity Distribution Industry Holdings Company	58.5	62.4	65.5	68.8	71.8	75.1	58.1
National Nuclear Regulator	4.9	14.1	17.4	19.7	22.9	24.1	17.9
South African Diamond and Precious Metals Regulator	–	–	20.0	40.0	39.4	41.4	32.0
Capital	10.5	10.9	11.3	11.9	16.2	16.4	14.3
Council for Geoscience	9.3	9.8	10.3	10.8	14.9	15.0	13.1
Electricity Distribution Industry Holdings Company	0.7	0.4	0.4	0.4	0.5	0.5	0.4
National Nuclear Regulator	0.5	0.7	0.6	0.6	0.9	0.9	0.8
Public corporations and private enterprises							
Public corporations							
Subsidies on production or products							
Current	249.7	312.5	379.3	545.4	551.3	582.4	613.9
Nuclear Energy Corporation of South Africa: Activities	208.6	261.2	277.5	438.6	447.3	473.1	498.7
Nuclear Energy Corporation of South Africa: Decommissioning Projects	20.1	24.4	78.0	81.9	78.8	82.8	87.3
Nuclear Energy Corporation of South Africa: SAFARI reactor conversion	12.0	15.4	13.6	14.2	14.4	15.1	16.0
Nuclear Energy Corporation of South Africa: Security	9.0	11.5	10.2	10.7	10.8	11.3	12.0
Capital	790.5	937.0	1 027.0	1 250.1	1 629.1	1 764.7	1 887.6
Eskom: Integrated national electrification programme	783.5	893.2	973.1	1 150.8	1 467.4	1 751.8	1 873.4
Nuclear Energy Corporation of South Africa: Activities	5.5	39.0	6.9	7.2	9.9	10.0	11.0
Nuclear Energy Corporation of South Africa: Decommissioning projects	1.6	4.9	2.0	2.1	2.9	2.9	3.2
Eskom: Integrated national electrification programme (backlogs)	–	–	45.0	90.0	149.0	–	–
Public corporations and private enterprises							
Private enterprises							
Subsidies on production or products							
Current	133.5	144.8	136.9	164.6	181.4	190.3	204.5
Assistance to Mines	35.2	37.3	24.1	41.2	43.1	45.5	47.9
Council for Mineral Technology and Research	98.3	107.4	112.8	123.4	138.3	144.9	156.6
Capital	68.8	93.3	85.7	96.4	101.0	105.4	107.3
Council for Mineral Technology and Research	10.6	11.2	11.8	12.4	17.0	17.2	14.3
Integrated national electrification programme: Non-grid electrification service providers	58.2	82.0	73.9	84.0	84.0	88.2	93.0

Expenditure trends

Overall expenditure for the *Associated Services* programme increased from R1.7 billion in 2005/06 to R2.9 billion in 2008/09 at an average annual rate of 19.8 per cent. Expenditure is mostly in the form of transfers and subsidies to municipalities and departmental agencies. The increase between 2005/06 and 2008/09 was due

to the integrated national electrification programme for the rehabilitation of electricity infrastructure and new connections. Transfers to the programme grew from R1.1 billion in 2005/06 to R1.9 billion in 2008/09. Other factors influencing this increase include inflation adjustments for capital and additional allocations to the South African Nuclear Energy Corporation of R256.7 million over the MTEF period, growing expenditure from R554.7 million in 2008/09 to R628.1 million in 2011/12.

Expenditure continues to increase over the MTEF period, from R2.9 billion in 2008/09 to an estimated R4.1 billion in 2011/12, at an average annual rate of 12.4 per cent. Transfer payments to Eskom are projected to rise from R1.2 billion in 2008/09 to R1.9 billion in 2011/12. Transfer payments to municipalities are also projected to grow from R595.6 million in 2008/09 to an estimated R1.1 billion in 2011/12, reflecting the urgency to meet the electrification targets.

Public entities

Council for Mineral Technology and Research

Strategic overview: 2005/06 – 2011/12

The ongoing development and application of innovative and knowledge intensive technologies is essential to socioeconomic growth. The Council for Mineral Technology and Research develops technologies aimed at strengthening the competitiveness of the traditional mineral processing cluster and fostering new opportunities.

Over the MTEF period, the council will focus on:

- **Improved investment in the undergraduate and graduate bursary programmes and rigorous human resource development:** the council's capacity is being constrained by the high turnover of experienced scientists and engineers, who move to higher paying positions in the private sector due to the commodities boom. The salaries of these professionals are being adjusted to close the gap and the council has initiated a programme to recruit a small number of experienced engineers from abroad. The council aims to reach a professional staff turnover rate of 16 per cent or less in 2009/10.
- **Uranium research and development:** following the upswing in the uranium market, the council has re-established itself as one of the foremost uranium laboratories in the country. Systematic research is carried out on the processing of different types of uranium mineralisation found in South Africa to provide enabling technology for the beneficiation of these deposits.
- **Titanium research and development:** there is a growing need and pressure to establish a South African titanium industry. Developing key primary and downstream technologies will enable a competitive world scale titanium metal industry to be established concurrently, allowing South Africa to capture the benefits of an emerging international light metals industry.

Selected performance and operations indicators

Table 28.11 Council for Mineral Technology and Research

Indicator	Past			Current	Projections		
	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Number of new or improved technologies developed each year	1	4	5	5	5	6	6
Number of new or improved products and services developed each year	4	11	16	13	14	14	15
Number of demonstrations for council products and technologies each year	6	3	5	2	3	3	6
Number of water and energy efficient flow sheets developed each year	–	–	–	1	2	1	2
Number of junior resource companies supported each year	12	13	40	22	25	28	40
Number of technologies relevant to SMMEs developed each year	2	2	2	2	2	3	3
Number of bursaries granted each year	75	78	80	85	85	90	90
Number of trainees employed each year	41	50	41	46	53	58	58
Number of interns each year	7	15	5	8	12	15	15
Number of strategies developed to support regional development each year	12	4	6	5	5	6	7

Service delivery and spending focus

South Africa and other resource rich African countries will only benefit from the strong global demand for commodities if raw material extraction is channelled into sustainable economic activity. Such favourable conditions increase the need for core funding for research and for people development to generate innovations in mineral processing that will put South Africa in a position both to supply commodity demands as well as to beneficiate raw materials, as called for by the Department of Minerals and Energy.

The Council for Mineral Technology and Research continues to build capacity in the mining sector. In 2007/08, the council granted 80 bursaries, and employed 41 trainees and 5 interns. Through its research and development programmes, it supported 40 junior resource companies. A recent Department of Science and Technology survey concluded that the council was an excellent point of contact with university based centres of excellence and showed that cooperation between the council and universities is a viable and affordable way of doing cutting edge research.

In 2007/08, the council carried out research on recovering platinum group metals from effluent streams and on the technology for separating platinum and palladium from other platinum group metals in 2007/08. The council is also a centre of excellence in cyanide monitoring: extensive work is being done on cyanide monitoring in gold plants in Africa, and the new cynroprobe instrument for measuring cyanide concentrations in gold plant and environmental samples has been rapidly accepted by the industry.

Expenditure estimates

Table 28.12 Council for Mineral Technology and Research: Project information

R million	Audited outcome			Revised estimate	Medium-term estimate		
	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Develop efficient mineral processing technologies and sustainable value added products and services	130.6	202.9	199.5	239.4	263.3	289.6	318.6
Second economy interventions	9.0	13.9	13.7	17.5	19.2	21.2	23.3
Support regional interventions	8.2	12.8	12.6	9.0	9.9	10.9	11.9
Human and organisational development	15.3	23.7	23.3	17.5	19.3	21.2	23.3
Quality, Environment and Safety	1.1	1.7	1.7	2.0	2.2	2.4	2.6
Other projects	118.3	83.7	128.5	70.0	81.7	88.2	104.9
Total expense	282.3	338.8	379.2	355.3	395.6	433.4	484.6

Table 28.13 Council for Mineral Technology and Research: Financial information

R million	Audited outcome			Revised estimate	Medium-term estimate		
	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Statement of financial performance							
Revenue							
Non-tax revenue	191.6	247.7	276.6	286.1	307.3	303.6	300.0
Sale of goods and services other than capital assets	161.8	200.4	244.9	260.6	287.2	282.2	277.2
of which:							
Sales by market establishments	161.8	200.4	244.9	260.6	287.2	282.2	277.2
Other non-tax revenue	29.8	47.3	31.7	25.6	20.1	21.4	22.9
Transfers received	95.5	104.1	118.1	135.8	155.4	162.1	171.0
Total revenue	287.1	351.8	394.7	422.0	462.6	465.7	471.0
Expenses							
Current expense	269.5	327.5	357.1	355.3	395.6	433.4	484.6
Compensation of employees	156.4	196.5	214.2	213.3	234.4	257.8	283.6
Goods and services	102.2	112.7	127.3	126.4	142.9	156.7	181.1
Depreciation	10.6	14.9	15.3	15.5	18.0	18.6	19.7
Interest, dividends and rent on land	0.3	3.4	0.2	0.2	0.3	0.3	0.3
Transfers and subsidies	12.8	4.9	21.1	—	—	—	—
Total expenses	282.3	338.8	379.2	355.3	395.6	433.4	484.6
Surplus / (Deficit)	4.8	13.0	15.5	66.6	67.1	32.2	(13.6)

Table 28.13 Council for Mineral Technology and Research: Financial information (continued)

R million	Audited outcome			Revised estimate	Medium-term estimate		
	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Statement of financial position							
Carrying value of assets	147.1	155.8	210.1	216.7	223.7	235.1	250.4
of which: Acquisition of assets	21.8	19.3	19.5	22.1	25.0	30.0	35.0
Investments	115.1	89.5	96.6	96.6	105.0	15.5	25.5
Inventory	2.7	3.3	2.9	2.9	2.5	2.5	2.5
Loans	1.2	25.1	4.2	–	–	–	–
Receivables and prepayments	46.5	84.2	105.4	90.0	90.0	90.0	90.0
Cash and cash equivalents	30.9	30.5	49.0	127.4	198.2	224.1	185.1
Assets not classified elsewhere	4.1	–	–	–	–	–	–
Total assets	347.7	388.4	468.2	533.6	619.5	567.2	553.6
Accumulated surplus/deficit	218.8	236.0	300.7	367.4	434.5	466.7	453.1
Borrowings	1.8	1.4	79.9	1.4	–	–	–
Post-retirement benefits	61.2	62.7	1.0	79.9	89.5	–	–
Trade and other payables	49.0	66.6	51.7	50.0	45.0	45.0	45.0
Provisions	12.6	0.5	0.4	0.5	0.5	0.5	0.5
Liabilities not classified elsewhere	4.1	21.3	34.5	34.5	50.0	55.0	55.0
Total equity and liabilities	347.7	388.4	468.2	533.6	619.5	567.2	553.6

Expenditure trends

Transfers received by the Council for Mineral Technology and Research increased from R95.5 million in 2005/06 to R135.8 million in 2008/09 at an average annual rate of 12.5 per cent. The council's own revenue from sales of services and technologies over this period increased at an average annual rate of 14.8 per cent.

Over the MTEF period, transfers received increase from R135.8 million in 2008/09 to an expected R171 million in 2011/12, an average annual rate of 9.8 per cent. The council's own revenue from sales of services and technologies over this period is expected to increase at an average annual rate of 2.1 per cent, though at a slower rate than the previous three financial years.

Nuclear Energy Corporation of South Africa

Strategic overview: 2005/06 – 2011/12

The Nuclear Energy Corporation of South Africa was established in terms of the Nuclear Energy Act (1999) to undertake and promote research on nuclear energy and radiation sciences and technology, process source material, special nuclear material and restricted material including uranium enrichment, and cooperate with other entities. In addition to its legislative mandate, the corporation is also responsible for decommissioning and decontaminating past strategic nuclear facilities, managing nuclear waste disposal nationally, applying radiation technology for scientific and medical purposes, operating the SAFARI-1 nuclear reactor and the Pelindaba site, and executing the safeguards function.

The Nuclear Energy Corporation of South Africa supports the development of viable nuclear fuel cycle options for the Eskom new build programme, which has the potential to open up important opportunities for the nuclear and manufacturing industry to secure the energy supply, contribute to minerals beneficiation and develop the manufacturing industry and train technically skilled people.

Priorities over the MTEF period include:

- responding to the new build programme by establishing fuel cycle capabilities, localising nuclear manufacturing and building key partnerships
- expanding the corporation's commercial revenue and developing appropriate products
- developing the corporation's nuclear facilitation capacity, including licensing, promoting safeguards, and nuclear security
- collaborating more closely with the Pebble Bed Modular Reactor programme
- intensifying human resource development activities.

Selected performance and operations indicators

Table 28.14 Nuclear Energy Corporation of South Africa

Indicator	Past			Current	Projections		
	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Number of innovations (3-year moving average)	2	3	4	4	4	5	5
Number of published scientific articles per researcher each year	0.1	0.2	0.3	0.4	0.5	0.7	1
Amount of sales of radiochemical products and services each year	R195m	R257m	R313m	R370m	R478m	R510m	R545m
SAFARI-1 operational availability (days available out of days scheduled)	307/310 (99%)	286/310 (92%)	305/308 days (99%)	304/304 (100%)	305/305 days (100%)	307/307 (100%)	304/304 (100%)
Total amount spent on decommissioning and decontamination closed down nuclear plants and facilities	R20.7m	R19.8m	R59.1m	R73.6m	R72.1m	R75.7m	R80.2m
Total number of security system update projects completed	10	87	148	236	287	321	338
Percentage of security system update projects completed expressed as a ratio of total of 338 projects planned	(3%)	(26%)	(44%)	(70%)	(85%)	(95%)	(100%)
Percentage of annual safeguards plan activities achieved as per agreed plan with the International Atomic Energy Agency	100%	100%	100%	100%	100%	100%	100%
Percentage of audited compliance in terms of the safety, health, environment and quality system and related legal requirements	60%	65%	76%	80%	80%	80%	80%

Service delivery and spending focus

The Nuclear Energy Corporation of South Africa's role over the medium term is expected to expand, based on results from engineering feasibility studies which have confirmed that there are viable options for establishing a nuclear fuel cycle production facilities in South Africa. The corporation has established the National Nuclear Manufacturing Centre with ASME VIII accreditation and N-Stamp certification, which allows the centre to design, manufacture and export industrial vessels.

The corporation was invited as one of 28 members from 11 different countries to join a consortium that will undertake the CarboWaste project on the treatment and disposal of irradiated graphite and other carbonaceous waste under the European Atomic Energy Community's seventh framework programme during 2008.

The nuclear skills development centre for training artisans for the nuclear industry opened in January 2008. It was accredited by the relevant sector education and training authority and 130 students were trained in 2008/09. The aim is to train up to 600 students in the nuclear sector each year, thus capacitating South Africa to play a greater role in global nuclear technology.

NTP Radioisotopes, a subsidiary of the Nuclear Energy Corporation of South Africa, made sales of R370 million, exceeding its target for 2008/09 by 12 per cent. The company is now the third largest global producer of radio chemicals, and its main product, fission Mo-99, is used in approximately 6 million nuclear medicine imaging scans and other medical procedures across the world every year. This performance emphasises the importance of research and development in the nuclear sector.

Expenditure estimates

Table 28.15 Nuclear Energy Corporation of South Africa: Financial information

R million	Audited outcome			Revised estimate	Medium-term estimate		
Statement of financial performance	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Revenue							
Non-tax revenue	401.8	479.8	569.3	667.3	712.8	788.8	850.6
Sale of goods and services other than capital assets	369.1	437.2	515.6	608.4	668.4	739.2	799.6
of which:							
Sale of isotopes and related products	369.1	437.2	515.6	608.4	668.4	739.2	799.6
Other non-tax revenue	32.6	42.6	53.7	58.8	44.4	49.5	51.0
Transfers received	221.7	326.6	345.2	533.5	564.1	595.4	628.1
Total revenue	623.5	806.4	914.5	1 200.7	1 277.0	1 384.1	1 478.7
Expenses							
Current expense	603.1	675.7	825.4	1 133.0	1 174.8	1 274.4	1 345.1
Compensation of employees	322.7	335.3	379.9	492.6	532.0	568.2	603.5
Goods and services	252.2	301.7	403.7	586.3	586.1	644.5	685.0
Depreciation	22.8	29.3	31.7	51.8	49.6	52.1	47.2
Interest, dividends and rent on land	5.4	9.4	10.1	2.2	7.1	9.6	9.4
Transfers and subsidies	13.4	13.9	15.2	16.3	17.1	18.0	19.0
Total expenses	626.2	704.9	866.5	1 176.6	1 224.4	1 324.5	1 396.7
Surplus / (Deficit)	(2.7)	101.5	48.0	24.2	52.6	59.6	82.0
Statement of financial position							
Carrying value of assets	170.1	212.6	242.8	301.8	342.0	432.0	456.5
of which: Acquisition of assets	34.9	58.9	63.7	110.8	89.7	142.1	71.7
Investments	45.7	43.3	45.0	80.4	96.0	111.8	224.1
Inventory	44.7	63.8	62.5	82.6	86.3	89.6	91.4
Receivables and prepayments	88.7	94.8	150.7	169.9	183.4	195.7	203.1
Cash and cash equivalents	101.7	134.2	167.2	148.0	189.6	241.1	196.2
Assets not classified elsewhere	–	–	0.1	0.1	0.1	0.1	0.1
Total assets	451.0	548.8	668.4	782.8	897.3	1 070.2	1 171.4
Accumulated surplus/deficit	(108.9)	(5.1)	41.0	111.5	186.4	261.0	340.3
Capital and reserves	11.3	21.4	23.6	23.7	23.7	23.7	23.7
Borrowings	16.6	14.8	10.6	16.1	35.2	114.9	132.5
Post-retirement benefits	310.3	312.2	329.6	330.6	331.1	331.6	332.3
Trade and other payables	198.6	177.5	225.1	238.0	248.0	255.7	259.2
Provisions	23.1	27.9	38.5	62.9	72.9	83.4	83.4
Total equity and liabilities	451.0	548.8	668.4	782.8	897.3	1 070.2	1 171.4

Expenditure trends

The allocation to the Nuclear Energy Corporation of South Africa increased from R221.7 million in 2005/06 to R533.5 million in 2008/09, an average annual rate of 34 per cent. This increase is due to additional allocations for increased personnel expenditure, site and infrastructure maintenance and refurbishment, the upgrading of the corporation's security system, and carrying out engineering feasibility studies to determine the viability of establishing the nuclear fuel cycle production facilities in South Africa. Revenue from the sale of products and innovations increases from R369.1 million to R608.4 million at an average annual rate of 18.1 per cent. Over the medium term, transfers received are expected to grow at a slower average annual rate of 5.6 per cent.

Additional tables

Table 28.A Summary of expenditure trends and estimates per programme and economic classification

Programme	Appropriation		Audited outcome	Appropriation			Revised estimate
	Main	Adjusted		Main	Additional	Adjusted	
R million	2007/08		2007/08	2008/09			2008/09
1. Administration	175.3	179.6	191.4	209.5	11.0	220.5	220.5
2. Promotion of Mine Safety and Health	124.8	121.8	104.3	129.8	(2.8)	127.0	127.0
3. Mineral Regulation	151.8	157.1	137.8	167.2	(5.0)	162.1	162.1
4. Mineral Policy and Promotion	70.1	70.1	73.6	57.5	7.4	64.9	64.9
5. Hydrocarbons and Energy Planning	52.6	52.3	35.6	65.1	(19.2)	45.9	45.9
6. Electricity, Nuclear and Clean Energy	58.0	60.5	86.7	62.0	199.4	261.4	261.4
7. Associated Services	2 333.5	2 333.5	2 318.0	2 904.4	–	2 904.4	2 803.1
Total	2 966.1	2 974.9	2 947.4	3 595.4	190.8	3 786.2	3 685.0

Economic classification							
Current payments	574.1	582.3	573.4	645.6	8.7	654.3	654.3
Compensation of employees	323.5	317.5	290.6	360.2	(11.1)	349.1	349.1
Goods and services	250.6	264.8	277.2	285.4	19.9	305.2	305.2
Financial transactions in assets and liabilities	–	–	5.6	–	–	–	–
Transfers and subsidies	2 382.8	2 383.5	2 366.5	2 940.0	180.3	3 120.2	3 019.0
Provinces and municipalities	467.8	467.8	462.5	595.6	–	595.6	494.4
Departmental agencies and accounts	247.7	262.1	262.1	257.2	–	257.2	257.2
Public corporations and private enterprises	1 666.1	1 652.4	1 639.8	2 085.9	180.1	2 266.0	2 266.0
Non-profit institutions	–	–	–	–	0.1	0.1	0.1
Households	1.2	1.2	2.1	1.2	0.1	1.3	1.3
Payments for capital assets	9.2	9.2	7.5	9.9	1.8	11.7	11.7
Machinery and equipment	7.7	7.7	5.3	8.4	1.0	9.4	9.4
Software and intangible assets	1.5	1.5	2.2	1.5	–	1.5	1.5
Land and subsoil assets	–	–	–	–	0.8	0.8	0.8
Total	2 966.1	2 974.9	2 947.4	3 595.4	190.8	3 786.2	3 685.0

Table 28.B Summary of personnel numbers and compensation of employees

	Audited outcome			Adjusted appropriation	Medium-term expenditure estimate		
	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Permanent and full time contract employees							
Compensation (R million)	213.0	239.1	273.1	330.7	375.0	405.8	429.9
Unit cost (R million)	0.2	0.2	0.2	0.2	0.3	0.3	0.3
Personnel numbers (head count)	992	1 107	1 331	1 428	1 459	1 475	1 476
Part time and temporary contract employees							
Compensation (R million)	2.6	1.9	2.0	2.1	2.2	2.3	2.5
Unit cost (R million)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Personnel numbers (head count)	70	51	51	51	51	51	51
Interns							
Compensation of interns (R million)	1.4	5.2	15.5	16.3	17.1	18.0	19.0
Unit cost (R million)	0.0	0.0	0.1	0.1	0.1	0.1	0.1
Number of interns	59	284	279	280	280	280	280
Total for department							
Compensation (R million)	217.1	246.2	290.6	349.1	394.3	426.1	451.3
Unit cost (R million)	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Personnel numbers (head count)	1 121	1 442	1 661	1 759	1 790	1 806	1 807

Table 28.C Summary of expenditure on training

	Audited outcome			Adjusted appropriation	Medium-term expenditure estimate		
	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Compensation of employees (R million)	217.1	246.2	317.5	360.2	394.3	426.1	451.3
Training expenditure (R million)	2.9	2.1	2.4	5.5	10.6	11.2	11.7
Training as percentage of compensation	1.3%	0.8%	0.8%	1.5%	2.7%	2.6%	2.6%
Total number trained in department (head count)	455	623	279	—			
of which:							
Employees receiving bursaries (head count)	76	117	67	—			
Internships trained (head count)	59	284	279	—			

Table 28.D Summary of conditional grants to provinces and municipalities¹

R million	Audited outcome			Adjusted appropriation	Medium-term expenditure estimate		
	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
Conditional grants to provinces							
Conditional grants to municipalities							
7. Associated Services							
Integrated national electrification programme grant	297.5	390.7	462.5	595.6	933.0	1 020.1	1 096.6
6. Electricity and Nuclear							
Demand side management: Municipalities	—	—	—	—	175.0	220.0	280.0
Total	297.5	390.7	462.5	595.6	1 108.0	1 240.1	1 376.6

1. Detail provided in the Division of Revenue Act (2009)

Table 28.E Summary of expenditure on infrastructure

R million	Type of infrastructure	Service delivery outputs	Current project stage	Total project cost	Audited outcome			Adjusted appropriation	Medium-term expenditure estimate		
					2006/07				2009/10		
					2005/06	2006/07	2007/08		2009/10	2010/11	2011/12
Mega projects or programmes (over R300 million per year for a minimum of three years or R900 million total project cost)											
National electrification programme: Eskom	Electrification backlog of permanently occupied residential	To implement the integrated national electrification programme by providing capital subsidies to Eskom to address the electrification backlogs of permanently occupied residential dwellings, the installation of bulk infrastructure and the rehabilitation of electrification infrastructure		-	783.5	893.2	973.1	1 150.8	1 467.4	1 751.8	1 873.4
National electrification programme: Municipalities	Electrification backlog of permanently occupied residential	To implement the integrated national electrification programme by providing capital subsidies to municipalities to address the electrification backlogs of permanently occupied residential dwellings, the installation of bulk infrastructure and the rehabilitation and refurbishment of electricity infrastructure in order to improve quality of electrification infrastructure		-	297.5	390.7	467.8	595.6	933.0	1 020.1	1 096.6
Large projects or programmes (costing between R50 million and R300 million per year within the MTEF period)											
Integrated national electrification programme: Eradication of backlogs in electrification on schools and clinics	Electrification backlog of schools and clinics	To implement the programme integrated national electrification programme by providing capital subsidies to Eskom in order to address the electrification backlogs of schools and clinics		-	-	-	45.0	90.0	149.0	-	-
Demand side management: Municipalities	Rollout of compact fluorescent light bulbs	To provide for the replacement of light bulbs in the rural areas as trained workers from the Working for Water campaign could be used		-	-	-	-	-	175.0	220.0	280.0
Demand side Management: Eskom	Rollout of compact fluorescent light bulbs	To provide for the replacement of light bulbs in the rural areas as trained workers from the Working for Water campaign could be used		-	-	-	-	180.0	74.5	108.9	118.8
Total				-	1 081.0	1 283.9	1 485.9	2 016.4	2 798.7	3 100.8	3 368.8

Table 28.F Summary of donor funding

Donor	Project	Departmental programme name	Amount committed	Main economic classification	Spending focus	Audited outcome			Estimate	Medium-term expenditure estimate		
						2005/06	2006/07	2007/08		2009/10	2010/11	2011/12
R thousand												
Foreign												
In cash												
Norway	Petroleum sector policy capacity building	Hydrocarbons and Energy Planning	–	Goods and services	Petroleum sector policies developed, research conducted and capacity building provided	7 253	3 000	2 515	–	–	–	–
	Electricity sector policy capacity	Electricity, Nuclear and Clean Energy	–	Goods and services	Training and capacity building in nuclear fields	584	1	89	–	–	–	–
	RSA-3001 South African energy sector policy research and capacity development programme	Electricity, Nuclear and Clean Energy	9 058	Departmental agencies and accounts	Compiled and published quality of electricity supply policy and regulations. Also developed national electricity pricing policy	–	–	–	6 109	2 848	–	–
	RSA-3001 South African energy sector policy research and capacity development programme	Hydrocarbons and Energy Planning	20 366	Compensation of employees	Training of petroleum controller staff, review of the petroleum pricing policy, and development of energy security master plan	–	–	–	7 901	11 153	–	–
Denmark	Designated national authority	Electricity, Nuclear and Clean Energy	–	Goods and services	Designated national authority established	272	19	716	661	–	–	–
	Cabeere project support	Electricity, Nuclear and Clean Energy	–	Goods and services	Renewable energy and energy efficiency service providers database established	–	262	–	–	–	–	–
	Darling wind farm project	Electricity, Nuclear and Clean Energy	–	Public corporations and private enterprises	Development of Darling wind farm as part of a pilot project in the fields of renewable energy	–	17 049	–	2 527	–	–	–
Total			29 424			8 109	20 331	3 320	17 198	14 001	–	–