

# B

## Public-sector infrastructure update

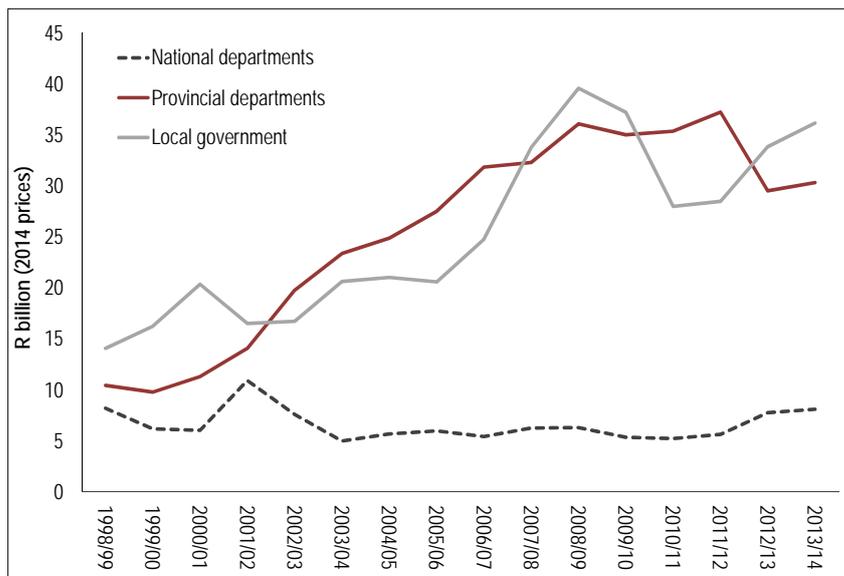
### Introduction

In line with the medium-term strategic framework (MTSF) and the National Development Plan, the 2015 Budget prioritises spending on economic infrastructure such as roads and transport, electricity, and water and sanitation. It also continues funding for programmes to improve the quality of infrastructure spending and the capacity of government to plan and implement infrastructure projects. This annexure provides an update on the status of government’s major infrastructure projects and highlights spending trends. It should be read in conjunction with Chapter 1 and the detailed discussions of the policy priorities that inform public-sector infrastructure spending in Chapters 5, 6 and 8.

### Trends in public infrastructure spending

Between 2009/10 and 2013/14, the public sector spent R1.02 trillion on infrastructure. Spending by general government – namely, national government, its agencies and provincial and local government – has increased significantly since 2011. In comparison, the substantial increase in spending by state-owned companies such as Transnet and Eskom beginning in 2007/08 slowed in 2013/14 and 2014/15. In some cases, capital expenditure by public corporations has declined.

Figure B.1 Real capital spending by sphere of government, 1998/99 – 2013/14



Source: National Treasury

As a share of GDP, public-sector spending on economic infrastructure is now at its highest level in 25 years. The major components of economic infrastructure are roads, bridges, dams, electricity and

water supply. Both general government agencies and public corporations have increased spending substantially. However, spending on social infrastructure, which includes schools, hospitals and sanitation, has not kept pace with GDP growth in recent years.

## Public-sector infrastructure spending highlights

Table B.1 summarises public-sector infrastructure plans for the next three years. The data in the table combines infrastructure financed at national, provincial and local government level with the expenditure estimates received from state-owned companies and other public entities. The public-sector infrastructure expenditure and estimates in the table include the cost of new and replacement assets, maintenance and repairs, upgrades and additions, and rehabilitation, renovation and refurbishment of assets. The table reflects the total project cost, including capital payments and interest. These costs may differ from other infrastructure figures in the 2015 *Budget Review*, or the *Estimates of National Expenditure*, which may exclude maintenance and financing costs.

Public-sector infrastructure spending estimates over the medium-term expenditure framework (MTEF) period have been revised down by R34.2 billion since they were published in the 2014 *Budget Review*.

**Table B.1 Public-sector infrastructure expenditure and estimates, 2011/12 – 2017/18**

R billion	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	MTEF
	Outcomes			Estimates				Total
Energy	67.1	75.1	69.5	69.2	71.1	56.0	39.2	<b>166.3</b>
Water and sanitation	19.2	22.6	26.2	34.8	37.3	39.8	40.3	<b>117.4</b>
Transport and logistics	70.1	69.5	76.4	93.7	104.3	113.5	121.3	<b>339.2</b>
Other economic services	11.5	8.9	11.8	17.5	15.4	15.5	14.7	<b>45.6</b>
Health	7.7	9.7	10.6	9.7	9.3	9.9	10.3	<b>29.5</b>
Education	7.8	9.8	12.3	13.5	14.5	14.5	14.8	<b>43.7</b>
Other social services	15.7	10.7	10.3	11.5	10.6	11.3	11.6	<b>33.5</b>
Justice and protection services	2.8	4.4	4.0	3.9	4.5	5.2	5.5	<b>15.2</b>
Central government, administration services and financial services	6.5	6.9	5.8	8.6	6.9	7.7	8.2	<b>22.7</b>
<b>Total</b>	<b>208.3</b>	<b>217.7</b>	<b>226.9</b>	<b>262.4</b>	<b>274.0</b>	<b>273.3</b>	<b>265.8</b>	<b>813.1</b>
National departments	6.6	9.6	10.6	11.2	13.8	16.0	15.4	<b>45.3</b>
Provincial departments	43.4	36.4	39.5	44.0	45.0	47.7	47.4	<b>140.1</b>
Local government	33.2	41.7	47.1	58.3	55.9	59.0	62.0	<b>177.0</b>
Public entities <sup>1</sup>	15.4	14.1	13.0	27.5	26.1	26.0	26.9	<b>79.0</b>
Public private partnerships	10.7	2.6	3.0	3.1	2.9	3.3	3.4	<b>9.7</b>
State-owned companies <sup>1</sup>	98.9	113.4	113.7	118.3	130.1	121.3	110.7	<b>362.2</b>
<b>Total</b>	<b>208.3</b>	<b>217.7</b>	<b>226.9</b>	<b>262.4</b>	<b>274.0</b>	<b>273.3</b>	<b>265.8</b>	<b>813.1</b>

1. Public entities are financed by capital transfers from the fiscus and state-owned companies are financed from a combination of own revenue, borrowings and private funding

Source: National Treasury

State-owned companies are the largest contributors to public-sector infrastructure expenditure, spending a projected R362.2 billion over the next three years, mostly on economic infrastructure. Spending by provinces is forecast at R140.1 billion over the same period, while municipalities are forecast to spend R177 billion.

By function group, economic services accounts for 82.2 per cent of total public-sector infrastructure spending. This sector will contribute to the expansion of power-generation capacity, the upgrade and expansion of the transport network, and improvements to sanitation and water provision. Spending by social services, education and health accounts for 13.1 per cent, 5.4 per cent and 3.6 per cent respectively of total public-sector infrastructure spending.

Spending on transport and logistics has been revised down from the estimates published in the 2014 Budget Review by R15.7 billion in 2015/16 and R14 billion in 2016/17. The downward revision is due to Eskom and Transnet trimming their capital spending plans. Eskom has reduced its capital budget mostly because many of the projects in its build programme are nearing completion. Given the subdued medium-term economic forecast, Transnet has curtailed its capital expenditure programme on the expectation of reduced demand for its services.

## Energy

The energy subsector will spend a total of R166.3 billion over the next three years, accounting for about 20 per cent of the total public-sector infrastructure budget. Eskom accounts for R138 billion, or 83 per cent, of this amount.

**Table B.2 Eskom expenditure over medium-term expenditure framework**

R billion	2014/15	2015/16	2016/17	2017/18	MTEF Total
Medupi power station	10.0	10.2	4.6	0.4	15.2
Kusile	14.1	13.1	9.0	6.0	28.0
Ingula pumped storage scheme	3.9	2.6	0.1	–	2.7
Matla refurbishment project	0.6	0.7	0.6	0.1	1.4
Sere wind farm	0.9	–	–	–	–
795kv projects	0.7	0.7	–	0.3	1.0
Northern grid projects <sup>1</sup>	0.9	5.0	4.1	1.6	10.7
Cape grid projects <sup>1</sup>	0.8	0.5	–	–	0.5
Central grid projects <sup>1</sup>	0.7	0.3	0.1	–	0.4
Majuba projects	1.2	1.5	0.6	0.0	2.2
Other	21.3	27.1	27.1	21.5	75.8
<b>Total</b>	<b>55.1</b>	<b>61.8</b>	<b>46.2</b>	<b>30.0</b>	<b>138.0</b>

*1. Grid projects involve installation of transmission lines, new transformers and upgrading of substations*

*Source: Eskom*

The first units of Medupi and Kusile are scheduled to become commercially operational in the second half of 2015 and 2016 respectively. Construction at Medupi was delayed again in 2014 as a result of industrial action. The operational date for Kusile's first unit was also delayed following the detection of boiler-tube welding defects. The first unit of the Ingula pumped storage scheme is due to become operational later in 2015.

Together with municipalities and the Department of Energy, Eskom will spend R18 billion on the Integrated National Electrification Programme between 2015/16 and 2017/18 to provide on-grid electricity access to 810 000 households and non-grid electrification to 65 000 households. The funds will also go towards building 12 substations and upgrading 18 others, and building 330km of medium-voltage power lines and upgrading a further 285km.

By December 2014, the Renewable Energy Independent Power Producer Procurement Programme, which was launched in August 2011, had contracted 66 projects to provide more than 4 100MW of renewable energy-generating capacity to the grid. As a result, generating capacity of 1 522MW, sufficient to power 670 000 average South African households for a year, had been brought online by December 2014. An additional 13 projects will be procured in the latest bid-submission period to increase total renewable energy-generating capacity to about 5 200MW. The cumulative investment for all 79 projects is estimated at R169 billion, of which about 28 per cent, or R47 billion, is foreign direct investment.

In addition, the request for proposals to procure 2 500MW worth of coal projects and 800MW of co-generation projects was issued in December 2014 for submission in June 2015. The gas utilisation master plan, a draft document intended to design the procurement process of gas and its role in South Africa in future, was also finalised and released for public comment in 2014.

## Water and sanitation

Over the MTEF period, funding is allocated to 229 water and sanitation infrastructure projects. These include 21 projects with a total cost of more than R1 billion.

Financed and implemented by the Trans-Caledon Tunnel Authority (TCTA), the Komati water scheme augmentation project, which supplies water to Eskom's Duvha and Matla power stations, has been operating since June 2013. Final inspections will take place over the next several months and the project is expected to be complete in October 2015. The project budget included contingencies for risks that did not materialise, resulting in total expenditure of about R1.2 billion compared with a budgeted R1.7 billion.

The TCTA is also implementing components of phase 2 of the Olifants River water resource development project, which is at the detailed design and construction phase. Water delivery from phase 2C, connecting to the De Hoop water treatment works, is to be completed in November 2015. The Department of Water and Sanitation is exploring mechanisms to fund the remainder of this project.

The Lesotho Highlands Development Agency (LHDA) and the TCTA are developing the funding strategy and project implementation arrangements for phase 2 of the Lesotho highlands water project. In 2012, the Minister of Finance approved a R25 billion guarantee for this project. The LHDA and the TCTA anticipate that initial implementation contracts will be awarded by the end of 2015.

There are 60 large projects and 148 small projects funded mainly through the *regional bulk infrastructure grant*, which has been allocated R15.1 billion over the MTEF period. This funding will also finance the construction of 76 regional bulk schemes to be completed over the next three years. The water boards undertake some of the regional bulk projects. During 2014, as part of its institutional reform project, the Department of Water and Sanitation disestablished the Bushbuckridge and Botshelo water boards and expanded the service areas of the Rand and Sedibeng water boards.

## Transport and logistics

Over the medium term, government and state-owned enterprises have budgeted R339.2 billion for transport and logistics. This accounts for 42 per cent of the total public-sector infrastructure budget over the period. These investments will improve the national transport infrastructure network, facilitate better mobility of people and services, and facilitate regional trade. Revenues from services provided by state-owned enterprises will help fund infrastructure investment, complemented by national and provincial allocations for road construction and maintenance.

Transnet continues to expand its freight rail network and upgrade capacity on the iron ore and coal export lines by modernising the rolling stock and refurbishing existing infrastructure. Planned investments in major capital projects – including buying rolling stock for locomotive freight rail, and expanding the manganese rail and terminal, the iron ore line and the coal line – will total more than R50 billion over the next three years. The increased capacity will facilitate the transport of freight and mining exports. Over the next seven years, an estimated R45.5 billion in capital investment will be spent on the coal and mineral system programme.

The diesel service of the new multi-product pipeline is now operating, and the pipeline will begin to operate at its full multi-product capacity once construction of the coastal and inland terminals is complete. Construction of these terminals is under way, and once completed the trunkline will enable delivery of products through the pipeline.

Over the MTEF period and beyond, major investments in roads, rail and ports include the following:

- Transfers to the South African National Roads Agency Limited of R39.1 billion over the medium term to fund maintenance and improvement of the national non-toll and coal-haulage road network.
- Moloto Road upgrades totalling R1.1 billion.

- Road infrastructure construction and maintenance of nearly R70 billion will be financed through the provincial equitable share and maintenance grants.
- The Passenger Rail Agency of South Africa has been allocated R11.2 billion for its rolling stock fleet-renewal programme. Under this 10-year initiative, the agency is expected to receive the first 44 train sets over the medium term.
- 578 Metrorail and mainline passenger services coaches will be refurbished in each of the next three years. Part of the transfer funding is earmarked to upgrade signalling systems and refurbish coaches.
- Infrastructure improvements at the major international airports will total R11.9 billion over the next three years.

### Human settlements

The MTSF projects that, by 2019, government will provide 563 000 fully subsidised housing units, 750 000 upgraded sites in informal settlements and 27 000 social housing units. Over the medium term, R59.2 billion is allocated to provincial human settlements departments for low-income subsidy housing programmes, and R33.7 billion to metropolitan municipalities for bulk infrastructure, land and basic services, particularly to upgrade informal settlements. Government has also allocated R3 billion for social housing through the *capital restructuring grant*.

### Health

Through conditional grants, national and provincial departments play an important role in funding the construction of hospitals and other healthcare facilities. Over the medium term, R16.6 billion is allocated for the construction, upgrade and maintenance of health facilities. Given the size of the public health-infrastructure portfolio, government has formed a health facilities infrastructure management unit to improve planning, oversight and delivery.

### Education

The Department of Basic Education will replace ageing, unsafe and other inappropriate infrastructure, and provide water, sanitation and electricity to schools across South Africa over the medium term. Funding of R7.4 billion has been allocated for this purpose over the medium term through the *school infrastructure backlogs conditional grant*. The department expects to use these funds to replace 510 inappropriate and unsafe school structures, and provide water to 1 120 schools, sanitation to 741 schools and electricity to 916 schools by 2017/18. With funding of R29.6 billion allocated to the *education infrastructure grant* over the medium term, provincial education departments will ensure that schools are built and maintained according to the minimum norms and standards for school infrastructure.

An amount of R3.2 billion has been allocated over the medium term to the Department of Higher Education and Training to continue construction that has already begun at two new universities – the University of Mpumalanga and Sol Plaatje University in the Northern Cape. Other infrastructure projects for new buildings and equipment, and refurbishments and upgrades to existing facilities at tertiary institutions, will amount to R7.4 billion over the MTEF period.

## ■ Infrastructure spending in the Estimates of National Expenditure

The *Estimates of National Expenditure* provides details of infrastructure spending on the budgets of national departments, agencies and entities. This information, detailed in Table B.3, reflects capital and maintenance spending from appropriated funds. It excludes infrastructure spending not financed from the National Revenue Fund, such as projects financed from the balance sheets of state-owned companies. Capital infrastructure refers to new infrastructure, and infrastructure replacements in terms of upgrades, rehabilitation, renovations and refurbishments. Current infrastructure refers to maintenance and repairs of existing infrastructure assets.

**Table B.3 Infrastructure nature of investment, 2011/12 – 2017/18**

Nature of investment	2011/12 Audited outcome	2012/13	2013/14 Preliminary outcome	2014/15	2015/16	2016/17	2017/18
R million	Estimates						
<b>Departmental infrastructure</b>	<b>6 451.0</b>	<b>9 314.8</b>	<b>9 005.7</b>	<b>11 213.9</b>	<b>13 817.2</b>	<b>16 003.8</b>	<b>15 447.2</b>
New infrastructure assets	2 752.7	4 212.2	4 641.2	6 377.7	7 500.4	8 920.5	8 511.6
Maintenance and repairs	328.3	191.0	437.4	648.1	620.5	578.5	805.5
Upgrading and additions	2 964.3	3 640.5	3 266.2	3 562.7	4 414.7	4 892.9	4 378.1
Rehabilitation and refurbishment	405.7	1 271.0	660.9	625.5	1 281.6	1 612.0	1 752.0
<b>Infrastructure transfers</b>	<b>83 463.6</b>	<b>84 268.0</b>	<b>90 508.1</b>	<b>107 762.6</b>	<b>113 764.2</b>	<b>119 955.5</b>	<b>126 536.4</b>
Current	189.4	398.2	384.6	555.8	318.4	318.1	338.1
Capital	83 274.2	83 869.8	90 123.5	107 206.9	113 445.8	119 637.4	126 198.3
<b>Total</b>	<b>89 914.6</b>	<b>93 582.7</b>	<b>99 513.8</b>	<b>118 976.6</b>	<b>127 581.4</b>	<b>135 959.3</b>	<b>141 983.6</b>

Source: National Treasury

Capital transfers form the bulk of the expenditure. A total of R451 billion is budgeted for infrastructure projects at general government level. Of this, 83 per cent of the projects are special infrastructure projects coordinated by the Presidential Infrastructure Coordinating Commission, which coordinates the development and planning of long-term strategic infrastructure projects across all sectors of the economy.

## Improving performance

Government has been working to improve infrastructure planning and delivery at national, provincial and local government level for several years. Figure B.1, which appears earlier in this annexure, shows the improvement in capital spending based on audited outcomes. Municipal and provincial real spending has improved consistently over the last decade and remains high, despite an easing off after the 2010 World Cup. Budget planning has also improved.

Government continues to improve its capability to plan and implement capital projects, with a focus on enhancing institutional capacity and individual skills. These efforts towards improving capacity include the following:

- A performance-based infrastructure grant system that rewards provincial departments of health and education with additional incentive allocations for building capacity and demonstrating improved infrastructure planning.
- The Infrastructure Delivery Improvement Programme provides technical assistance, and training in planning, procurement and management systems for the provincial and national departments of health, education and public works, along with management oversight functions in provincial treasuries.
- The *infrastructure skills development grant*, which funds built-environment graduates to increase the pool of experienced practitioners. In the long term, these graduates will form a pipeline of qualified professionals. There are currently 432 graduates in various stages of training, with 64 expected to meet registration requirements in 2015/16.
- The City Support Programme, which works with metropolitan municipalities to promote growth and support urban spatial transformation. The programme has established a project preparation facility to help municipalities prepare projects that support urban transformation and economic growth.
- The Infrastructure Investment Programme for South Africa, a €100 million financing agreement supported by the European Union, which is designed to strengthen project planning and implementation. The Development Bank of Southern Africa is conducting due diligence on shortlisted projects and initial allocations will be made in April 2015.

Updated National Treasury regulations will establish requirements for infrastructure procurement and delivery to standardise requirements across the public sector.

## Status of major infrastructure projects

### Major infrastructure projects under way

Table B.4 summarises major economic and social infrastructure projects where funds have been committed and work is under way. The projects' total estimated cost and status are provided. Most of the projects are publicly funded, while a small proportion, such as the Renewable Energy Independent Power Producer Procurement Programme and the Cornubia integrated human settlement project, are funded by the private sector. Where the implementing agent is a public enterprise, these projects are financed from its own balance sheet, backed by government guarantees when necessary. Sources of information include the corporate plans of state-owned companies and National Treasury estimates of national expenditure.

**Table B.4 Major infrastructure projects under way**

Project name	Implementing agent	Project cost (R billion)	Project description	Current status
<b>Energy</b>				
Renewable energy	Independent power producers	105	Comprises photovoltaic, concentrated solar power and wind projects	Phase 2 reached financial close. Phase 3 bidding complete. First bidding process completed in October 2011 and 3 725 MW will be constructed by 2017 by independent power producers
Sere wind farm	Eskom	2.4	Construction of 100MW of wind power in Ceres	Main turbine contractor awarded and site establishment commenced
Medupi power station	Eskom	105	Construction of 4 800MW coal plant in the Waterberg region	Unit 6 scheduled for commercial operation in second half of 2015.
Kusile power station	Eskom	118.5	Construction of 4 764MW coal plant in Mpumalanga	Unit 1 commercial operation scheduled for second half 2016
Ingula pumped-storage scheme	Eskom	25.9	Construction of 1 332MW pumped-storage scheme	Commercial operation of first unit expected second half of 2015
<b>Education</b>				
University of Mpumalanga	Department of Higher Education and Training	7	University with various campuses across the province and at least one centre in each of the three municipal districts by 2025	First phase upgrade of existing facilities completed in 2014, major construction work will begin in 2015/16
Sol Plaatje University (Northern Cape)	Department of Higher Education and Training	5.4	University with campuses in Kimberley, Upington and Kuruman by 2025	First phase upgrade of the existing facilities completed in 2014, major construction work will begin in 2015/16
Construction of 12 new TVET college campuses	Department of Higher Education and Training	25.4	Construction of new TVET colleges, refurbishment of old ones by 2017	Construction commenced at three sites: Thabazimbi, Nkandla A and Bambanani
Tertiary institutions infrastructure	Department of Higher Education and Training	33.1	New buildings and equipment, refurbishment and upgrade of facilities	Work in progress
School infrastructure backlogs in-kind allocation	Department of Basic Education	13.9	Replacing 510 inappropriate and unsafe school structures, and providing water to 1 120 schools, sanitation to 741 and electricity to 916	Work in progress
Education infrastructure allocation	Department of Basic Education	95.8	Construction, maintenance, upgrading and rehabilitation of new and existing infrastructure in schools	Work in progress
<b>Health</b>				
Upgrade and rebuild of hospitals (national hospital revitalisation)	Provincial departments	31	Provide funding for upgrade and rebuild of hospitals	Work in progress
Health facility revitalisation grant	Provincial departments	15	Help accelerate construction, maintenance, upgrading and rehabilitation of new and existing infrastructure in health	Work in progress
KwaZulu-Natal: Ngw elezane hospital and Lower Umfolozi war memorial hospital complex	Provincial departments	1.5	Construction of hospital complex	Under construction
Eastern Cape: Cecilia Makiwane hospital	Provincial departments	1.3	Construction of main hospital (phase 4)	Under construction
North West: Bophelong hospital	Provincial departments	1	Construction of new hospital	Under construction

**Table B.4 Major infrastructure projects under way (continued)**

Project name	Implementing agent	Project cost (R billion)	Project description	Current status
<b>Health</b>				
KwaZulu-Natal: King George V	Provincial departments	1.2	Upgrading and additions to existing hospital	Under construction
Northern Cape: Upington hospital	Provincial departments	0.9	Construction of new hospital	Under construction
Free State: Boitumelo hospital	Provincial departments	0.8	Revitalisation of existing hospital	Under construction
Gauteng: Chris Hanani Baragwanath	Provincial departments	0.8	Construction of pharmacy, outpatient and x-ray departments completed	Under construction
Mpumalanga: Rob Ferreira hospital	Provincial departments	0.9	Upgrading of existing hospital	Under construction
Eastern Cape: St Elizabeth's hospital	Provincial departments	0.7	Upgrading of existing facility	Under construction
North West: Brits hospital	Provincial departments	0.8	Construction of new hospital	Under construction
National health grant (health facility revitalisation component)	National Department of Health	3.8	Accelerate construction, maintenance, upgrading and rehabilitation of new and existing infrastructure in health	Work in progress
<b>Telecommunications</b>				
Digital terrestrial television	Sentech	2.7	Finalise digital terrestrial network by 2015	83.5% population coverage achieved against overall target of 84%. All digital terrestrial television migration sites to be completed by 31 March 2015
Square Kilometre Array	National Research Foundation	16	Hosting the most powerful radio telescope in the world	Tender
South Africa connect: phase 1 of digital development plan	Provincial departments	6.7	Schools and government institutions connected to broadband	Under construction
<b>Water</b>				
Mokolo river and West Crocodile river water augmentation project (phase 1)	Trans-Caledon Tunnel Authority	2.1	Construction of pump station and 43 km pipeline to augment domestic and industrial water supply to new power stations, associated mining activities and growing population	Under construction
OR Tambo, Mthatha and King Sabata Dalindyebo district municipality bulk water supply and sanitation	Municipal project	2.7	Augmentation of existing bulk water scheme	Under construction
Olifants River water resources development project: De Hoop dam (phase 2A)	Trans-Caledon Tunnel Authority	3.1	Supplying water to new mining developments, augmentation of domestic water supplies to urban and rural users in the middle Olifants river catchment area and to various communities on Nebo Plateau and Sekhukhune	Under construction
Olifants River water resources development project (phase 2C)	Trans-Caledon Tunnel Authority	3.4	Bulk distribution works from Flag Boshielo to Mkopane, De Hoop to Steelpoort, Steelpoort to Mooihoek, Mooihoek to Olifantspoort and Nebo Plateau to Roossenekal	Under construction
Vaal Dam scheme	Department of Water and Sanitation	2	Upgrading existing bulk water scheme	Under construction

Table B.4 Major infrastructure projects under way (*continued*)

Project name	Implementing agent	Project cost (R billion)	Project description	Current status
<b>Water</b>				
Mogalakwena bulk water supply	Department of Water and Sanitation	1.5	Upgrading boreholes and construction of new bulk water scheme	Under construction
Greytown regional bulk scheme	Department of Water and Sanitation	1	Construction of new bulk water scheme and upgrading existing bulk water scheme	Under construction
Umgeni Water Board: Lower Thukela bulk water supply scheme	Umgeni Water Board	1	Construction of new bulk water scheme	Under construction
Olifants River water resources development project (phases 2B and 2G)	Trans-Caledon Tunnel Authority	13.1	Construction of Flag Boshielo to Mokopane pipeline and second pipeline between Flag Boshielo and Mokopane	Feasibility
Sedibeng bulk regional sewerage scheme remainder	Departmental agencies	2.4	Construction of new wastewater treatment works	Design
De Hoop: Greater Sekhukhune district municipality regional bulk water and wastewater infrastructure	Provinces and municipalities	2.1	Construction of new bulk water infrastructure linking communities with De Hoop dam	Feasibility
Magalies water to Waterberg	Departmental agencies	1.9	Construction of new bulk water scheme	Feasibility
Lusikisiki regional water supply scheme: Zalu dam on Xura river	Departmental agencies	5	Developing bulk water and wastewater infrastructure that will enable connection of municipal reticulation infrastructure	Feasibility
Rehabilitation of 28 water conveyances (bulk transfer scheme)	Department of Water and Sanitation	5	Rehabilitation of canals and pipelines	Under construction
<b>Transport</b>				
Rolling stock for passenger rail	Passenger Rail Agency of South Africa	53	Rolling stock fleet renewal programme over 10 years commencing 2012, delivery commencing in 2014/15	Procurement underway
Locomotives for freight rail	Transnet	38.6	Acquisition of 1 064 locomotives for general freight rail	Procurement underway
Rolling stock and locomotives for freight rail	Transnet	19	Acquire rolling stock and locomotives for general freight rail	Procurement underway
Manganese rail and terminal	Transnet	26.7	Grow manganese exports from 7.0mt to 14.0mt by 2020 thereafter to 16.0mt	Under construction
Iron ore line	Department of Transport	13	Expand Sishen-Saldanha iron ore railway	Under construction
Coal line expansion	Department of Transport	45.5	Upgrade coal line from Mpumalanga to 81.0mt in near future, thereafter to 97.0mt	Under construction
<b>Human Settlements</b>				
Cornubia integrated human settlement	Housing Development Agency / municipalities	25.8	Construction of 50 000 mixed-income, mixed-density houses by 2026	Under construction

Source: National Treasury

## Major projects in preparation

Table B.5 lists major projects in planning phase, which form part of the pipeline of infrastructure projects over the medium term. The table excludes projects at the concept and pre-feasibility stages because it is not yet possible to reliably estimate their costs. While some projects are still undergoing feasibility studies, others have advanced to the design and tender stage. As the scope of the project is firmed up during this preparatory phase, the estimated project costs are likely to change.

**Table B.5 Major infrastructure projects in planning**

Project name	Implementing agent	Project cost (R billion)	Project description	Current status
<b>Energy</b>				
Coal 3 (Eskom)	Eskom	111.1	Build third coal-fired power plant	Feasibility
Solar park	Central Energy Fund	200	Establishment of 1GW solar park near Upington region and further 4GW elsewhere in Northern Cape	Feasibility
Eskom solar concentrated solar power	Eskom	9.8	Construction of 100MW of concentrated solar power technology with storage	Feasibility
Closed cycle gas turbine	Independent power producers	17	Construction of 2 652MW of installed capacity of gas turbines	Tender
Photovoltaic	Independent power producers	154	Another 7 000MW over and above 1 450MW in the current 3 725MW renewable energy independent power producers	Tender
Concentrated Solar Power	Independent power producers	60	Another 1 000MW over and above 200MW in the current 3 725MW renewable energy independent power producers	Tender
Wind	Independent power producers	111	Another 6 550MW over and above 1 850MW in the renewable energy independent power producers, and 800MW in committed builds elsewhere	Tender
<b>Health</b>				
KwaZulu-Natal: Dr Pixley ka Seme Memorial hospital	Provincial department	1.5	Construction of new hospital	Tender
Limpopo: Siloam hospital	Provincial department	1.2	Replacement of hospital (main hospital and staff accommodation)	Design
Limpopo: Tshilidzini hospital	Provincial department	1.4	Replacement of hospital	Feasibility
Western Cape: Valkenberg hospital	Provincial department	1.2	Rehabilitation of hospital	Feasibility
Eastern Cape: Zithulele hospital	Provincial department	1	Replacement of hospital	Feasibility
Gauteng: Soshanguve hospital	Provincial department	1.4	Building of new hospital	Feasibility
<b>Telecommunications</b>				
Sentech: digitisation of terrestrial television network	Public corporations and private enterprises	1.5	Efficient use of spectrum, broadcast digital dividend, multiple channel possibilities and new content generation	Design

**Table B.5 Major infrastructure projects in planning (continued)**

Project name	Implementing agent	Project cost (R billion)	Project description	Current status
<b>Transport</b>				
Moloto corridor	Department of Transport	10	Safe and reliable commuter transportation between Siyabuswa and Tshwane	Feasibility
Waterberg rail	Transnet	5.1	Develop Waterberg as coal hub, increasing coal tonnage to 23mtpa (seven-year programme)	Feasibility
Coal line expansion	Transnet	8.9	Upgrade Mpumalanga-Richards Bay coal line to 97mt over 10 years	Concept
Swaziland rail link	Transnet	19	Construction of new rail link, reconstruction and upgrade of existing rail links from Lothair through Swaziland to Sidvokodvo, upgrading of adjacent network	Concept
Durban port expansion	Transnet	8.2	Deepening of berths at Durban container terminal, expansion of Durban container terminal pier 1 phase 2 and infilling of Z shape	Design
Iron-ore line (Sishen to Saldanha Bay)	Transnet	16.3	Expand Sishen-Saldanha iron ore railway line to 82.5 mtpa	Feasibility
Manganese rail and terminal	Transnet	18.7	Upgrade rail, port and terminal capacity for manganese export	Feasibility
<b>Water</b>				
Olifants River water resources development project (phases 2B and 2G)	Departmental agencies	13.1	Construction of Flag Boshielo to Mokopane pipeline and second pipeline between Flag Boshielo to Mokopane	Feasibility
Sedibeng bulk regional sewerage scheme remainder	Departmental agencies	2.4	Construction of new wastewater treatment works	Design
De Hoop: Greater Sekhukhune district municipality regional bulk water and wastewater infrastructure	Municipal Project	2.1	Construction of new bulk water infrastructure linking the communities with De Hoop Dam	Feasibility
Magalies water to Waterberg	Departmental agencies	1.9	Construction of new bulk water scheme	Feasibility
Lusikisiki regional water supply scheme: Zalu dam on Xura river	Departmental agencies	5	Developing bulk water and wastewater infrastructure of municipal reticulation infrastructure	Feasibility
<b>Liquid Fuels</b>				
Mthombo	PetroSA	200	Construction of 3 000kbb/d oil refinery at Coega with supporting infrastructure of R100 bn	Feasibility
Oil and gas exploration on the West Coast	PetroSA	8.5	F-O field exploration for deepwater oil and gas reserves in support of the gas-to-liquid refinery	Feasibility
Biofuels	Department of Energy	2	Construction of 90 million l/a plant at Cradock using sugar, beet and sorghum	Design

Source: National Treasury

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