

ENERGY



DIRECTORATE EXECUTIVE SUMMARIES AND SCORECARDS FOR 2017/2018

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Website: <http://www.capetown.gov.za/Family%20and%20home/meet-the-city/our-vision-for-the-city/cape-towns-integrated-development-plan>

(for detailed SDBIP)



CITY OF CAPE TOWN
ISIXEKO SASEKAPA
STAD KAAPSTAD

Making progress possible. Together.

VISION OF THE CITY:

To be an opportunity city that creates an enabling environment for economic growth and job creation, and to provide assistance to those who need it most. To deliver quality services to all residents. To serve the citizens of Cape Town as a well-governed and corruption free administration.

In pursuit of this vision the City's mission is as follows:

- To contribute actively to the development of its environment, human and social capital
- To offer high-quality services to all who live in, do business in or visit Cape Town as a tourist
- To be known for its efficient, effective and caring governance.'

This is a one year plan giving effect to the Integrated Development Plan (IDP) and the budget. It sets out the strategies in quantifiable outcomes that will be implemented over the 2017/2018 financial year. It considers what was set out in the IDP and indicates what the Informal Settlements, Water & Waste Services Directorate needs to do to deliver on the IDP objectives, how this will be done, what the outcomes will be, what processes it will follow and what inputs will be used.



**CITY OF CAPE TOWN
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1. EXECUTIVE SUMMARY

The executive summary of the Energy Directorate's Service Delivery and Budget Implementation Plan 2017/2018 provides an overview of delivery by the core departments of the directorate; namely Electricity Generation & Distribution and Sustainable Energy Markets.

The directorate's service delivery and budget implementation plan (SDBIP) is developed in alignment with the City's new Term of Office Integrated Development Plan (IDP) and further unpacked in the three line department's business plans and SDBIPs to ensure effective and efficient service delivery.

Key priorities of the Directorate in relation to the new Term of Office IDP are.

- Excellence in basic service delivery
- Mainstreaming basic service delivery to informal settlements and backyard dwellers
- Resource efficiency and security

2. PURPOSE AND SERVICE MANDATE OF THE DIRECTORATE

Core purpose

- To ensure sustainable municipal infrastructure and services (energy) that will enable economic development
- To provide equitable access to basic services (electricity) for all the citizens of Cape Town
- The provision of basic services (electricity) to backyarders on Council owned land as a priority across the City of Cape Town

Service Mandate

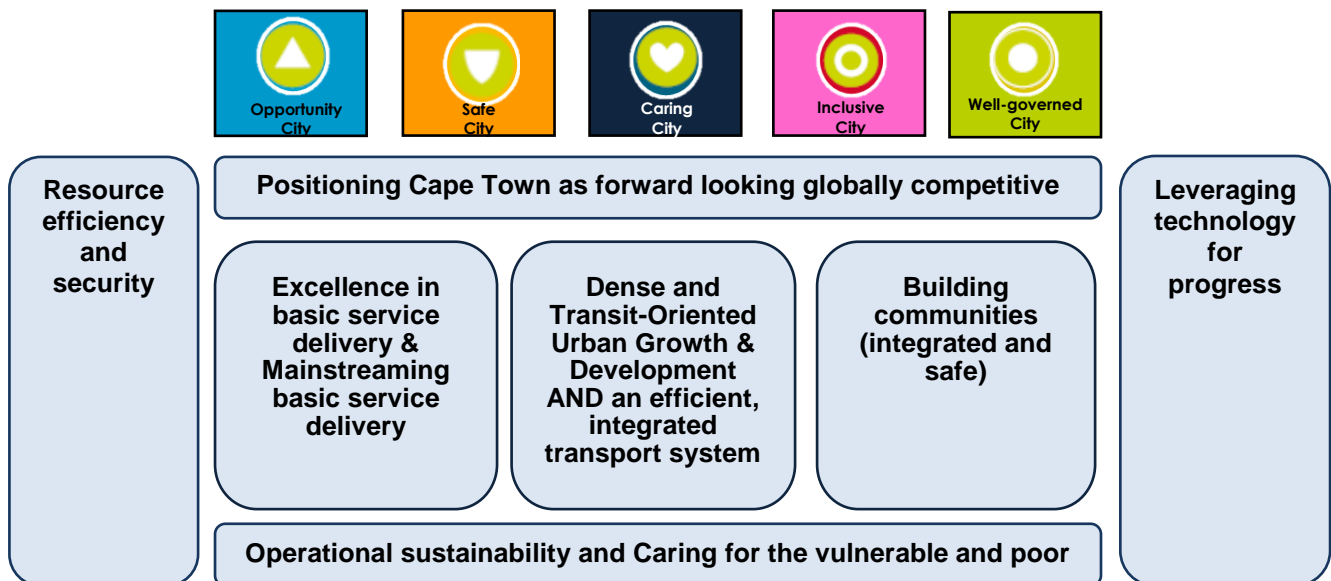
The Constitution stipulates that the municipality has a responsibility to ensure that citizens of Cape Town have access to basic services. Municipal powers and functions are dealt with in Section 156 (Schedules 4B and 5B) of the Constitution. Specific functions are contained in Schedule 4B pertaining to electricity reticulation, and schedule 5B pertaining to street lighting.

To meet this responsibility Energy must ensure the provision of effective and reliable electricity services through the management of resources and service delivery infrastructure.

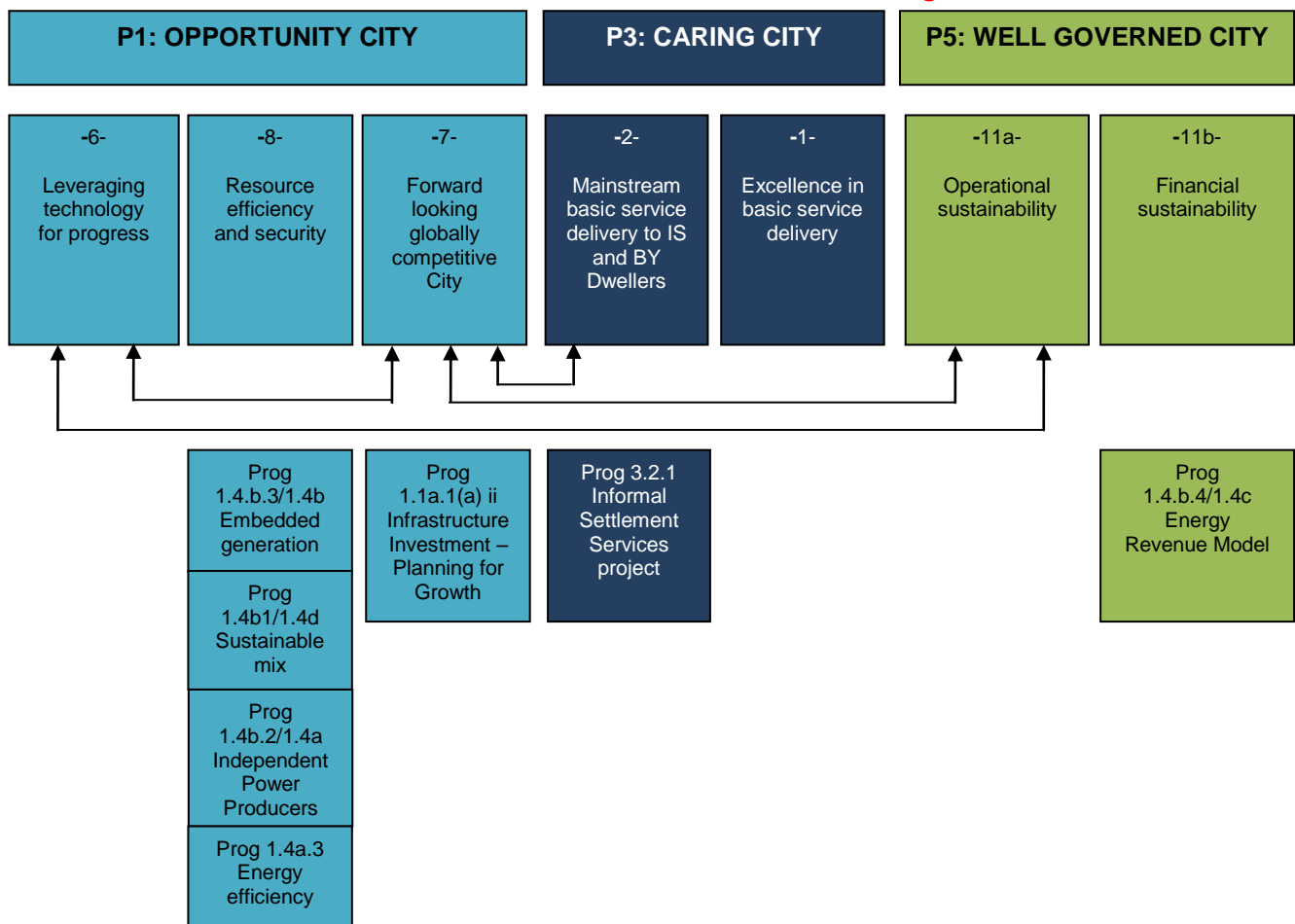
Electricity Generation & Distribution (EGD) department distributes electricity to residential and commercial/industrial customers in the CCTES supply area. The department is licensed by the National Energy Regulator of South Africa (NERSA) to undertake this function. Under the NERSA licence, the standard of services provided must meet the requirements as set out in the national standards NRS047 and NRS048.

3. STRATEGIC ALIGNMENT TO THE IDP

The alignment of the business plan with the Integrated Development Plan (IDP) Pillars, Organisational Design and Transformation Programme (ODTP) priorities and programmes is shown below.



Transformational Priorities and Strategies



KEY DIRECTORATE PROGRAMMES IN THE NEW TERM OF OFFICE IDP:

Programme 1.1(a) Infrastructure Investment Programme:	1.1.a.1 Infrastructure Maintenance Project: 1.1.a.1 (a) Infrastructure Planning for Growth
	1.a.3 Infrastructure Investment Research Project
Programme 1.3 (a) Skills Investment Programme:	1.3.a.1 SPV Skills Development and Apprenticeship Investment and Graduate Internship Project
1.4.a Energy Efficiency and Supply Programme:	Renewable energy
	Demand Side management
Programme 3.1.a Excellence in Basic Service delivery:	Quality of Supply
	Quality of Service
Programme 3.2.a Basic Service Delivery Programme:	3.2.a.1 Encouraging and supporting backyard dwellings/Informal Settlements
	<ul style="list-style-type: none"> - Electrification Plan for Informal Settlements - Backyarder Programme

Programme 1.1(a) Infrastructure Investment Programme:

1.1.a.1 Infrastructure Maintenance Project:

1.1.a.1 (a) Infrastructure Planning for Growth

Electricity Infrastructure

Management of legacy medium-voltage switchgear: The City faces serious challenges in the management and maintenance of equipment on the medium-voltage distribution system, mainly due to ageing infrastructure. This applies to all types of medium-voltage switchgear on the system.

The City aims to achieve the following in general:

- Networks: Develop the high voltage and medium voltage networks to ensure reliable electricity supply.
- Informal Settlements: Provide services and upgrades to un-serviced informal settlements.
- Network upgrades: Provision to informal and backyarder services will require upgrade or replacement of many networks which are old and inefficient. Refurbishment and replacement of existing assets to achieve balance, cost-efficiency and long-term viability of infrastructure.
- Identify infrastructure hotspots where enhancement of development rights may need to be limited in the short to medium term, and establish monitoring mechanisms to review their status.
- Electrification of Low Cost Housing Developments, IS and BY: Electrification in the city in terms of City and Western Cape Government (WCG)'s Human Settlement Plans. Facilitate prioritisation of electrical connection backlogs in informal areas serviced by Eskom.
- A 30-year programme has been initiated, through which all obsolescent medium-voltage switchgear will be replaced with equipment complying with modern best-practice specifications, thereby improving safety and security of supply as well as reducing maintenance requirements.
- Low-voltage and medium-voltage distribution network infrastructure: Investment in the medium-voltage distribution network is required, and a new voltage level is being considered to improve efficiencies. Over the next five years, existing substations,

underground cables and overhead power lines across the metropolitan area will be upgraded and refurbished as part of a 15-year network development programme

1.1.a.3 Infrastructure Investment Research Project

1.1.a.3 (a) Infrastructure asset management

In 2006 NERSA conducted technical audits of major electricity distributors including EGD in which maintenance was highlighted as a major area of concern. Subsequent to this EGD has embarked on a multi-year programme to implement enterprise asset management (EAM) using the SAP platform and conforming to PAS55 standards. Through the systematization, standardization and centralization of functions asset management will form an integral part of day to day activities to create an efficient, predictable operational environment.

With the transfer of assets from the legacy systems to SAP, not enough time was spent on implementing a comprehensive AMP. The main focus was on financial systems which resulted in a lack of operational focus. Physical asset master data was extremely limited and of poor quality. This led to the need for a total rebuild of SAP EAM (SAP PM – Plant Maintenance Module – and related modules) and to collect and populate asset master data. This work is in progress, with a new master data design and data collection having been completed for distribution MV and LV, but will take some time yet before it is completed for all EGD physical assets, including Facilities, Generation and secondary functions. The current focus is on the HV master data design. Full operationalization will take place in the medium term.

Programme 1.3 (a) Skills Investment Programme:

1.3.a.1 SPV Skills Development and Apprenticeship Investment and Graduate Internship Project

Skills development and training is vital to address critical shortages in Cape Town to meet the needs of the organisation and the local economy. Apprenticeship investment in Electricity Generation & Distribution Department will meet the demand side of the labour market, using the training the City provides to either become skilled technicians employed by government or to move as newly qualified people into the private sector.

Programme 1.4.a Energy Efficiency and Supply Programme

Renewable Energy

In accordance with the City's draft Energy and Climate Change strategy, the EGD Department aims to promote the use of renewable energy as follows:

- Manage the City's SSEG program which provides for a limited amount of excess generation of small scale renewable energy generators to be fed back onto the municipal grid and to receive an associated credit.
- Promote the finalization of national technical specifications for the connection of small scale renewable generation to utility electrical grids.

The EGD Department will also assist the newly established Department of Sustainable Energy Markets (SEM) to:

- Sell the Green Electricity purchased by the City of Cape Town from the Darling Wind Farm. This was South Africa's first commercial wind farm comprising four 1.3MW turbines and began generating in May 2008. This operating model has been replaced by the National Renewable Energy Independent Power Producer Procurement Programme (REIPPP) since 2012.
- Promote and facilitate the implementation of other renewable generation systems where practical.
- To keep abreast of national and provincial developments regarding renewable energy and facilitate the incorporation thereof into City processes.

- To investigate the practicality of entering into long term Power Purchase Agreements (PPAs) with Independent Power Producers (IPPs) to provide electricity at the same price the City purchases electricity from Eskom.

Demand Side Management / Energy Efficiency

The Directorate aims to:

- Establish and implement an Energy Efficiency (EE) programme.
- Promote Eskom's Energy Saving Program to the City's electricity consumers.
- Establish and maintain an on-line EE and Demand Side Management (DSM) resource.

The Directorate completed pilot projects for smart prepayment meter and a Utility Load Management (ULM) to test and assess the appropriateness, uses and availability of technologies for smart meters and improve service delivery. The results will be used to inform a decision on whether to deploy these technologies for use in the business.

Programme 3.1.a Excellence in Basic Service delivery:

Quality of Supply

The EGD core business is to provide reliable electricity supply to customers in the EGD supply area. To ensure that the quality of electricity supply meets the required regulatory standards, EGD monitors its performance in terms of NERSA guidelines as set out in the NRS 048 part 1 and part 2 documents.

Quality of Service

The minimum standards and reporting lines for the quality of service to Electricity to customers is set out in the NRS 047 part 1 and part 2 documents. These specifications cover a number of services including customer driven complaints, enquiries, requests, quotations and forums. The standard response times and satisfaction indices for counter services, telephonic replies and written replies are stipulated in these documents.

Mainstreaming basic service delivery to informal settlements and backyard dwellers

The widespread occurrence of informal settlements and informal dwellings in the yards of houses in formal townships in South Africa is an urban reality. EGD is responsible for the electrification of informal settlements and backyard dwellings within the City of Cape Town supply area in order that the City meets its constitutional and statutory obligations to provide basic municipal services, and to afford occupiers of backyard dwellings direct access to the supply of electricity.

Access is undertaken in terms of the City's electrification policy and as part of the EGD electrification plan and backyarder programme which are funded through the Integrated National Electrification Programme (INEP) and the Urban Settlement Development Grant (USDG). Once access to the service has been provided, there is no distinction between the quality of supply and service levels to informal, back-yarder and formal residential areas.

Electrification Plan for Informal Settlements

A lack of service connections still exists in the electrification of informal settlements in some areas. At this stage the bulk of these are found in the portion of the Metro which is in the Eskom supply area. With a change in DoE policy, Eskom have embarked on the electrification of informal areas which comply in terms of the City's electrification policy utilizing INEP grant funding. The City has also allocated USDG funds sourced internally by the EGD to fund electrification in informal settlements in the Eskom supply area. Certain informal areas in both supply areas are excluded in terms of the electrification policies as dwellings are below the 50 year flood line, are in road, rail and power line reserves and servitudes or on privately owned land.

Electrification is an on-going process as informal settlements grow and will therefore continue over the medium to long-term. The electrification plan budget is shown below. It is combined for both informal settlement and formal housing electrification to movement of funds to match the dynamic environment of informal and subsidized housing provision.

Backyarder Programme

Backyarder is a term used to describe where the occupier (owner or tenant) of formal housing has allowed others to establish informal dwellings in the yard of a property. These dwellings do not have direct access to services from the City and are reliant on obtaining these services via the occupier of the formal dwelling.

This project supports the key pillar of the caring city by assisting in alleviating poverty through the provision of subsidised electricity supplies to backyard dwellings and is guided by considerations of equity, affordability and sustainability. It also supports the shift toward embracing informality and semi-formality. Currently the programme is restricted to backyard dwellings on City Rental Units within the metro and the future provision these services will require major focus and investment with pressure on financial sustainability as many of the networks are very old, inefficient and often require extensive replacement.

4. PERFORMANCE PROGRESS AND OUTCOMES

4.1 Past year's performance

The past year's information is available in the Annual Reports located on the site:

<http://www.capetown.gov.za/en/IDP/Pages/default.aspx>

Overall progress on electrification (informal settlements)

Access to electricity – A backlog still exists in informal settlements in the Cape Metro Area, mainly in the Eskom area of supply. Some households in this category have the added challenge of being located on Encumbered Land (informal dwellings located either on private land, below the 1:50 year flood line, under power lines, road or rail reserves, storm water retention or detention ponds, unstable land and any other health or safety hazard). To alleviate the backlog, registration of servitudes on privately owned properties are considered, relocation of structures from land that is not suitable for the provision of electricity to more suitable land and electrification on road or rail reserves upon permission from the respective Business Authority. Moreover, the majority of service requests for the provision of informal settlement connections are as a result of infills/new connections resulting from burnt area infills within an existing informal settlement and new pockets.

4.2 Areas of Business Improvement

There are a number of Service Improvement initiatives that will be rolled out over the business plan period. These will include customer campaigns to educate and create awareness amongst electricity consumers regarding various projects including rationalised electricity tariffs, the cost of the theft of electricity and of vandalism of electricity infrastructure.

5. PARTNERS AND STAKEHOLDERS IN THE STRATEGY PLAN

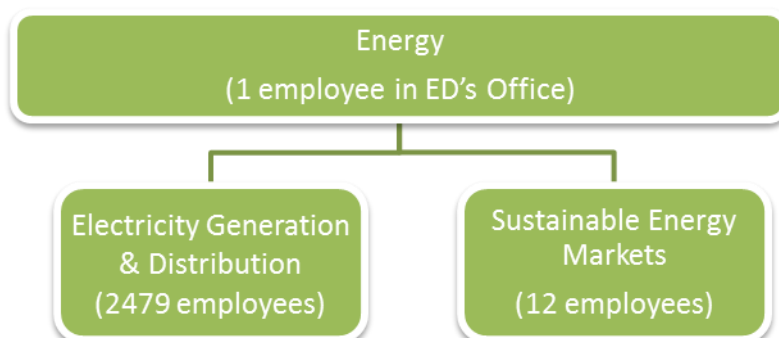
Partner/Stakeholder	Needs/Roles and Responsibilities
<ul style="list-style-type: none"> • Customers • Communities • Business/industry 	Service delivery; electricity distribution, electrification projects, uninterrupted supply; reasonable turnaround time on service requests
Internal Partners <ul style="list-style-type: none"> • Councillors • External Service Delivery Directorates • Corporate • Unions 	Information sharing; communication of directorate requirements and service standards; policy development and implementation; service coordination
External Partners <ul style="list-style-type: none"> • National and Provincial Government • Parastatals • Community based Organisations • Business Sector • Sector Service Authorities • Institutions for Higher Learning 	Information and knowledge management, service delivery coordination, implementation, research, compliance with regulatory frameworks

Transversal Committee	Working Group Involvement
<ul style="list-style-type: none"> • Economic Cluster Management Committee 	<ul style="list-style-type: none"> • Green Economy Energy and Climate Change
<ul style="list-style-type: none"> • Social Cluster Management Committee 	<ul style="list-style-type: none"> • Sustainable Communities

6. RESOURCES

6.1 Senior management capability and structure.

6.1.1 Directorate organogram



SAP BI as at January 2017

6.1.2 Possible outsource services

- None.

6.1.3 Lead and Contributing Directorate (Energy – Lead)

Programme	Project	Lead Directorate	Contributing Directorates
1.4.a Energy Efficiency and Supply Programme	1.10.1 Independent Producers Project:	Energy	Transport & Urban Development Authority
	1.10.2 Embedded Generation Project:	Energy	Informal Settlements, Water & Waste Services
	1.10.3 Energy Revenue Model Development:	Energy	Finance
	1.10.4 Sustainable Energy Project:	Energy	Transport & Urban Development Authority
1.11 Climate Change Resilience Programme	1.11.2 Resource Efficiency Project:	Energy	Transport & Urban Development Authority, Informal Settlements, Water & Waste Services

6.2 FINANCIAL INFORMATION*

6.2.1 Summary of revenue by source

6.2.2 Summary of operating expenditure by type

6.2.3 Summary of capital expenditure by type

6.2.4 Major Projects Aligned To PPM (IDP Linkage)

6.2.5 Narrative on Directorate capital programme

*To be completed pending finalisation of the budget.

7. RISK ASSESSMENT

Management, with the assistance of the Integrated Risk Management (IRM) Department, has applied their minds and due care taken to ensure that risks which could impact on them not achieving the Directorate's objectives are identified, addressed and managed on a day to day basis in accordance with the City's approved IRM Policy and IRM Framework.

Risk Registers are utilised as a management tool in order to manage identified risks of the Directorate. The risks identified and rated equal to or above the Council approved risk acceptance level will be reported to the Executive Management Team (EMT). The Executive Director to inform/discuss the Directorate's risks with the relevant Mayoral Committee member on a six monthly basis.

7.1 Revenue risks

Risks to achieving revenue projections:

- Security and quality of supply
- Certain aspects of the economic slowdown are still evident
- The increase in the indigent register

8. OBJECTIVES AND INDICATORS OF THE DIRECTORATE SCORECARD

Key objectives and indicators on the Corporate Scorecard where Energy is the lead directorate.

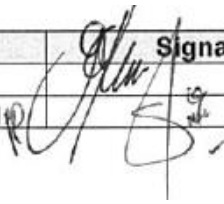
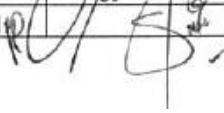
Alignment to IDP		Link to Lead Directorate	Corporate Objective	Indicator (to include unit of measure)	Annual Target 2016/17 (30 Jun 2017)	2017/18 (Quarterly Targets)			
Pillar	CSC Indicator no.					30 Sept 2017 Q1	31 Dec 2017 Q2	31 Mar 2018 Q3	30 Jun 2018 Q4
SFA1 - Opportunity city	1.C	Energy	1.1c Ease of doing business	Number of outstanding valid applications for commercial electricity services expressed as a percentage of commercial customers	New	<0.2%	<0.2%	<0.2%	<0.2%
SFA 3 - Caring city	3.D	Energy	3.1 Excellence in Basic Service delivery	Number of outstanding valid applications for electricity services expressed as a percentage of total number of billings for the service	< 0.7%	< 0.6%	< 0.6%	< 0.6%	< 0.6%

SFA 3 - Caring city	3K	Energy	3.2. Mainstreaming of basic service delivery to informal settlements and backyard dwellers so that there is an improvement in living conditions, a focus on creating tenure and a reduced dissatisfaction with the level and quality of City services.	Number of electricity subsidised connections installed	1,500	375	750	1,125	1,500
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The full Energy Directorate Scorecard is attached as annexure to the executive summary.

9. AUTHORISATION

The undersigned do hereby indicate their agreement with the contents of this document and the outcomes.

	Name	Signature	Date
Executive Director	Gisela Kaiser		20/02/2017
Mayco Member	Cllr Xanthea Limberg		20/02/2017

10. APPENDICES:

Annexure: Draft 2017/2018 Directorate Scorecard template.