



REEEP®



POLICY | BRIEF

CLIMATE CHANGE,
CLEAN ENERGY
AND URBAN WATER
IN AFRICA

PILOT INITIATIVE
IN SOUTH AFRICA

Sustainable Development Goals (SDGs)



THE RECOMMENDATIONS IN THIS POLICY BRIEF TARGET THE FOLLOWING 7 SDGs:

GOAL 6: Ensure availability and sustainable management of water and sanitation for all.

GOAL 7: Ensure access to affordable, reliable, sustainable and modern energy for all.

GOAL 9: Build resilient infrastructure, promote inclusive and sustainable industrialisation and foster innovation.

GOAL 11: Make cities and human settlements inclusive, safe, resilient and sustainable.

GOAL 12: Ensure sustainable consumption and production patterns.

GOAL 13: Take urgent action to combat climate change and its impacts by regulating emissions and promoting developments in renewable energy.

GOAL 17: Strengthen the means of implementation and revitalise the Global Partnership for Sustainable Development.

POLICY BRIEF AT A GLANCE

A New Paradigm	“ Nexus Thinking ”: A new resource (carbon, energy and water) efficiency paradigm for municipal service delivery.
Key Drivers to Influence Collaboration	“ National Strategy ”: Develop national strategy for the deployment of cleaner energy (renewable energy and energy efficiency) solutions in municipal services delivery and associated infrastructure systems.
	“ National Best Practice Guidelines ”: Develop national best practice guide for implementing CE solutions in municipal services delivery and associated infrastructure systems.
	“ Alignment within Government ”: Coordinate between spheres of government to promote CE solutions defined and incentivised by national government.
	“ Targeting Cost Savings ”: Set targets for water and energy (and therefore cost) savings that increase municipal capital investment in infrastructure and reduce reliance on national fiscus.
	“ Municipal Mandates ”: Incentivise municipalities to adopt plans for the implementation of CE interventions to save energy at waterworks.
	“ Municipal CE Champion ”: Appoint CE programme implementer to achieve successful interventions.
	“ Address Revenue Loss Perceptions ”: Create awareness of overall benefits of net energy savings opportunities in municipal services delivery.
	“ Performance Contracting ”: National Treasury to provide clear guidance and legal interpretation on performance contracting - specifically if longer than three years.
Incentivise and Support Cleaner Energy Implementation	“ Recognition ”: Broaden existing schemes (DWS blue, green and no drop) to include energy saving initiatives at municipal waterworks.
	“ Internal Incentives ”: Incentivise municipal officials to consider CE initiatives that do not correspond directly to their daily operational functions.
	“ Metering Standards ”: Standardise metering, monitoring and analytics practices to guide waterworks’ operations regarding optimal energy efficiency of various works components and power demand profiles.
	“ Reporting & Verification ”: Develop a framework for monitoring and reporting across municipal waterworks nationally.
	“ Innovative Financing ”: Develop financing approaches and mechanisms based on energy savings potential to leverage funding (other than grants) at municipal waterworks.
“ Financing Conditionality ”: Prioritise energy savings initiatives and CE interventions in national grants to municipalities.	
Catalyse Cleaner Energy Project Origination at Municipalities	“ Engaging the Private Sector ”: Unlock complementary skills and strengths by defining approaches to attract and engage the private sector fairly and transparently.
	“ Progressive Realisation ”: Develop baseline energy audits for all municipal waterworks.
	“ Banking on It ”: Develop guidelines from National Treasury for assessment of bankability of CE interventions.

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ACRONYMS & ABBREVIATIONS

CE	●	Clean(er) energy
CoGTA	●	Department of Cooperative Governance and Traditional Affairs
DBSA	●	Development Bank of Southern Africa
DEA	●	Department of Environmental Affairs
DoE	●	Department of Energy
DST	●	Department of Science and Technology
DWS	●	Department of Water and Sanitation
EE	●	Energy efficiency
EEDSM	●	Energy Efficiency Demand Side Management
ESCO	●	Energy service company
Eskom	●	Electricity Supply Commission of South Africa
GTAC	●	National Treasury: Government Technical Advisory Centre
NERSA	●	National Energy Regulator of South Africa
PPP	●	Public-private partnership
REEEP	●	Renewable Energy and Energy Efficiency Partnership
SANEDI	●	South African National Energy Development Institute
SDGs	●	Sustainable Development Goals
UNIDO	●	United Nations Industrial Development Organization

Introduction

PURPOSE & OBJECTIVES

A policy is a statement of intent by the government. **This policy brief makes recommendations to government (national, provincial and local) for cleaner energy (renewable energy and energy efficiency) policies related to municipal waterworks and their operations.** The purpose of this Policy Brief is two-fold, to:

1

Make recommendations to the government regarding cleaner energy policy reform options related to municipal waterworks, based on key lessons from the Climate Change, Clean Energy and Urban Water in Africa project;

2

Guide decision-making and encourage deployment of cleaner energy technology at municipal waterworks.

THE KEY FOCUS AREAS ADDRESSED IN THE POLICY BRIEF ARE BASED MAINLY ON ENGAGEMENTS WITH PARTICIPATING MUNICIPALITIES¹ AND NATIONAL GOVERNMENT DEPARTMENTS.

1. Participating municipalities in this pilot project were Nelson Mandela Bay Metropolitan Municipality and !Kheis Local Municipality.



WATER WORKS

The term **waterworks** is used throughout this document to refer to **all components of water and sanitation services provision infrastructure, assets, installations and systems**. This includes water and wastewater treatment works, pump stations, pipelines as well as systems (including financial, monitoring and evaluation) required for continued management, operation, maintenance and renewal of such works.

TARGET AUDIENCE

This policy brief is aimed at national government, or more specifically the departments that are mandated to address water, energy and climate, including the Departments of Water and Sanitation (DWS), Energy (DoE), and Environmental Affairs (DEA).

Each policy recommendation is attributed to one or more departments that would ideally take the lead in implementation. A number of the recommendations in the policy brief are also aimed at local government and their supporting entities.

APPROACH

The recommendations in this policy brief were developed based on lessons learned during the implementation of the ‘Climate Change, Clean Energy and Urban Water in Africa’ project, which aimed to empower municipalities to implement CE interventions in their waterworks through a combination of capacity building, stakeholder engagement and technical assistance. This project was funded by the European Commission, implemented by UNIDO and executed by REEEP.

These lessons learned were complemented through discussions on barriers, opportunities and policy gaps relevant to CE in urban waterworks with municipal officials, private sector service providers, financiers and national government officials during stakeholder roundtable events.

THE RECOMMENDATIONS WERE TESTED DURING A REVIEW PROCESS THAT INCLUDED GOVERNMENT OFFICIALS, PRIVATE SECTOR AND CIVIL SOCIETY REPRESENTATIVES.

STAKEHOLDER CONSULTATIONS

The project hosted four roundtable events. Each was attended by selected stakeholder groups relevant to the issues to be discussed. The events aimed to generate a better understanding of the critical issues and barriers to deployment of CE technology in municipal waterworks, as viewed from different sector perspectives, as well as opportunities to unlock finance for such interventions and facilitate market-based approaches for public-private partnerships in municipal service delivery.

All four roundtable events, hosted at SANEDI (the South African National Energy Development Institute) in Johannesburg, were well attended, indicating a demand for such cross-sector engagement in both the public and private sectors.

The roundtables (in chronological order) addressed the following issues:

Finance Roundtable:

CE funding options and methods to access finance for the deployment of cleaner energy solutions in municipal waterworks.

Procurement Roundtable:

Public procurement processes for CE interventions: Understanding key risks, barriers and challenges faced by municipalities and private sector service providers engaging in PPPs with the municipal sector in South Africa (on water and energy infrastructure).

Public-Private Partnerships Roundtable:

Promoting and facilitating public-private partnerships between ESCOs and municipalities.

Unlocking Cleaner Energy Roundtable:

Multi-stakeholder perspectives for project origination: Examining the challenges faced in the implementation of CE projects as identified in previous roundtable events and developing strategies to overcome these challenges.

In addition to the roundtable events, the project arranged a series of engagement events at the project's pilot municipalities and regularly consulted with the project's steering committee, in which many of the key government departments and agencies are represented.

In a final stakeholder event, a draft version of the Policy Brief was presented. The feedback received from the participants was documented by the project team and has been used to refine the content and presentation of this final version of the Policy Brief.



Policy Recommendations



South Africa faces considerable challenges in delivering sustainable and affordable water, dignified sanitation and energy services to its people. Municipalities, which are responsible for delivering these services, are subject to environmental and economic pressures that include water scarcity, escalating electricity prices, insufficient power supply to meet demand and skills shortages. Additionally, municipal water and wastewater treatment infrastructure is ageing and often inefficient. A paradigm shift in traditional models of municipal water and sanitation supply is necessary to ensure that South Africa meets its socio-economic goals while managing the environmental effects of increased demand for essential services.

South Africa is, and has historically been, dependent on fossil fuels for energy. It relies on coal (for electricity generation) and imported oil (for vehicles, machinery and plant) as its key resources. Due to a natural abundance of coal and the historically comparatively low prices of energy, the South African economy has developed along both an energy and carbon intensive trajectory.

Innovative approaches to energy use in municipal waterworks, specifically through increased energy efficiency (EE) and greater use of renewable energy (RE; together: cleaner energy/CE), can enable more financially and environmentally sustainable delivery of water and wastewater services.

CE provides municipalities with an opportunity to reduce costs in their water and wastewater operations as well as contribute to climate change mitigation. However, pursuing ambitious CE objectives requires targeted policy measures and fiscal incentives to trigger the necessary interest and investment by local government.

The draft Post-2015 National Energy Efficiency Strategy² states that, based on EE interventions in a sample of major municipalities, energy savings of 47% could be achieved in bulk-water supply and water treatment. The strategy's goal for the municipal services sector is to "accelerate the reduction in the specific energy consumption per resident in delivering municipal services". The strategy sets a national energy savings target of 20% from savings in energy-intensive municipal services, which include water treatment, water supply and wastewater treatment. However, what is not clear in the strategy is how government plan to reach this target, apart from through the DoE's grant making vehicle for Energy Efficiency Demand Side Management (EEDSM).

The policy recommendations in this brief build on government's EE goals. They can be used to inform steps that might achieve - and where possible, surpass - the municipal services energy savings targets in the draft National Energy Efficiency Strategy.

2.1 A NEW PARADIGM: RESOURCE EFFICIENCY NEXUS

Normally, the larger the municipality, the more segregated ("siloes") its functional departments are. In large municipalities, it is often not standard practice to have defined communication protocols and planning initiatives that bridge departments and divisions in municipal structures, except at the level of senior and/or executive management.

For example, water units do not typically discuss day-to-day operational planning and issues with the wastewater or electricity units. However, to maximise the benefits from energy savings initiatives, the silos will have to be broken down, and organisations will need to be restructured in a way that best identifies and quickly responds to energy and water saving opportunities. This is valid for municipalities but also for all other levels of government.

2. Department of Energy. 2016. Draft Post-2015 National Energy Efficiency Strategy. Government Gazette No. 40515, December 23rd 2016. Republic of South Africa. Pretoria.

A paradigm shift is required from a “siloed” approach to a holistic, resource efficiency-focused approach to the management of municipal service delivery. The purpose of this paradigm shift is to maximise benefit from national resources, by understanding how resources can be optimally utilised in the value chain of municipal service delivery. This paradigm shift is also closely connected to the government’s most prominent nexus, namely: **economic development and transformation. The proposed resource efficiency nexus could be a critical driver of economic development and transformation.** It has the potential to create jobs whilst deploying surplus capital for the operation, maintenance and recapitalisation of municipal infrastructure, thereby creating additional sustainable jobs.

Policy Recommendation No. 1:
“Nexus Thinking”, A New Resource Efficiency Paradigm

A paradigm shift is needed in government to achieve resource efficiency in municipal service delivery. Over the past two decades, the cost of delivery of conventional municipal services, such as water purification, potable water distribution, sewage recirculation, and wastewater treatment, has risen unsustainably high. This trend will likely continue due to limited natural resources, foregone capital replacement, and increasing urbanisation.

Resource efficiency thinking should be embedded in the management of the three primary municipal resources, namely energy, water and waste. Municipal organisational structures should be reorganised to take advantage of and manage resource efficiency, and more importantly, transform the way services are delivered, developing sustainable urban systems for energy and water delivery, and waste utilisation. **LEAD: DST**

2.2 KEY DRIVERS TO INFLUENCE COLLABORATION

STRATEGY AND LONG-TERM PLANNING

Municipal water and sanitation departments tend to lack a coherent strategy and long-term planning capacity for the widespread development of CE interventions. Stakeholder feedback clearly highlighted that there is also no clear and coherent national EE policy with associated incentives.

Policy Recommendation No. 2:
“National Strategy”, Developing the Government’s Energy Efficiency Goals

The government should provide a national strategy³ for the development of CE interventions in municipal services delivery assets and strategic infrastructure systems⁴.

Ideally, this would be informed by an expert pool of stakeholders in a formal advisory committee or technical working group format. The strategy should provide clear guidance on the fundamental principles of CE as well as the steps to be taken to ensure the

implementation of fit-for-purpose solutions. Central to the strategy should be a market engagement plan that sets out authorised, fair and transparent approaches to engage the local private sector.

Finally, a national strategy should prioritise incentive-based approaches to commend local governments that champion CE at their waterworks.

LEAD: DOE | SUPPORT: DWS



Policy Recommendation No. 3:
“National Best Practice Guidelines”, Functional Ways to Implement EE Interventions

The government should develop a best-practice guide for the implementation of CE interventions in water and wastewater infrastructure. The guidelines should establish a standard approach for the full lifetime

of CE/EE projects, from inception, through feasibility studies and financial close, to installation, operation and monitoring, reporting and verification.

LEAD: DWS | SUPPORT: DOE

INTEGRATION BETWEEN THE THREE SPHERES OF GOVERNMENT

There is insufficient alignment of strategies and plans between the three spheres of government related to CE interventions at municipal waterworks. An opportunity exists for the three spheres to collaborate and combine their resources to promote CE initiatives. An additional benefit would be that financiers and the private sector tend to be more willing to engage with municipal projects when there is strategic alignment between the three spheres of government.⁵

Policy Recommendation No. 4:
“Alignment within Government”, Coordination Across all Spheres of Government

An aligned approach should be developed and incentivised by national government. Municipalities, as the “executing agents”, are responsible for the initiation, implementation and management of CE interventions.

National and provincial governments should facilitate support, for example by convening technical working group meetings, providing updates on technologies and suppliers in their areas, as well as facilitating training for municipal staff.

The national government, represented by DST and supported by the DoE, DEA and DWS, should oversee the development of strategic CE policies, national CE standards and funding incentives, and could show its commitment by undertaking a CE flagship programme at municipal waterworks across multiple provinces.

This aligned approach should provide broader and more varied opportunities for the private sector to engage with and support government, particularly in services beyond the design, supply and installation of CE solutions.⁶

**LEAD: DST
 SUPPORT: DOE, DEA, DWS, COGTA**

Policy Recommendation No. 5:
“Targeting Cost Savings”, Intentional Power and Energy Savings

It is recommended that the government set ambitious short-, medium- and long-term targets for water and energy savings. Associated cost savings will reduce demands on

the national fiscus, by enabling local government to recapitalise their own assets instead of relying on national infrastructure grants.

LEAD: DOE | SUPPORT: DWS

3. There is a draft Energy and Climate Change Strategy for Public Buildings, which could be expanded upon. 4. Waterworks assets typically comprise the largest energy consumption infrastructure class in municipalities, and therefore should be a focal point. 5. Based on conversations with financiers during the roundtable events. 6. These services could include strategy planning, drafting of standards, technical working group participation, and performance contracting training.

PRIORITISATION, MANDATES AND “CHAMPIONS”

It has been widely observed that municipal services provision is, by nature, reactive. Municipal officials have to prioritise urgent operational issues at their waterworks on a daily basis, to ensure uninterrupted water service delivery and wastewater treatment. Therefore, strategic opportunities such as long-term plans to save energy at waterworks can be difficult to prioritise.

Policy Recommendation No. 6:

“Municipal Mandates”, Authoritative Instructions Focussed on Energy

Municipal water and sanitation officials are usually not mandated to save energy or reduce instantaneous power demand at their waterworks. Municipalities should be incentivised to adopt plans to implement CE interventions at their waterworks, which should be connected to the performance contracts of senior officials and be integrated into their key performance areas (KPA's).

The government should require that municipal managers include CE-specific KPAs and key performance indicators in the employment contracts of their executive directors and directors of water and sanitation. This will devolve responsibility to the operational level, where energy use will need to be monitored, reduced and reported on.

LEAD: DOE | SUPPORT: DWS

Policy Recommendation No. 7:

“Municipal CE Champion”, Nomination of an Implementation Lead

During project engagements, it was noted by municipal officials, private technology providers, private energy services companies and financiers that an effective municipal project manager or designated project champion is critical to drive a CE intervention towards successful implementation and

operation. This requires capacity building within municipal water and sanitation departments and/or in supporting departments such as electricity. A designated CE champion can save the municipality significant energy and should be seen as a worthwhile investment. LEAD: DWS

COMPETING FINANCIAL PRIORITIES

Some municipalities may have concerns that energy savings in the water and sanitation departments would result in lower electricity revenues for the municipal electricity department⁷. Therefore, to senior managers of these departments, CE interventions may initially seem like bad investments, even if in the majority of cases the concerns are unfounded.

Policy Recommendation No. 8:

“Address Revenue Loss Perceptions”, Comparison of Revenue Losses between Departments

It would be beneficial for the government to address directly any concerns about revenue loss in municipalities which have their own electricity departments (this is the case mainly in metropolitan and larger local municipalities).

The government could convene workshops to explain the net energy savings opportunity to the senior officials of municipal electricity, finance, and water and sanitation departments.

LEAD: NATIONAL TREASURY, GTAC⁸

7. Most metropolitan and similar-size municipalities have dedicated electricity services and sales departments, which are registered with NERSA and which sell on energy that they purchase from Eskom in bulk. Smaller municipalities purchase their electricity from Eskom and do not on-sell to their citizens, who are also charged by Eskom directly. 8. The Government Technical Advisory Centre, or GTAC, is an agency of the National Treasury, established to support public finance management through professional advisory services, programme and project management and transaction support. 9. Some municipal officials have cited the MFMA as preventing contracting periods longer than three years.

SUITABLE CONTRACTING APPROACHES FOR LONG-TERM CE INTERVENTIONS

Municipalities often default to the perceived “safest” contracting option, usually a standard, three-year service level agreement contract. To minimise perceived organisational and personal risk, municipal councils and officials are often unwilling to explore options for longer-term contracting⁹.

Policy Recommendation No. 9:

“Performance Contracting”, Energy Efficiency Performance Measures

Performance contracting is not common practice in municipalities, and municipalities tend to assume that it is discouraged politically and legislatively. Some municipalities stated that they lacked the skills to implement performance

contracts for periods longer than three years. National Treasury should provide clarity and/or guidelines on performance contracting for periods longer than three years.

LEAD: NATIONAL TREASURY, GTAC

2.3 POLICY TO INCENTIVISE AND SUPPORT CLEANER ENERGY IMPLEMENTATION

TARGETING EE AT WATERWORKS USING EXISTING INCENTIVE SCHEMES

The government has been active in driving climate change mitigation, by implementing or exploring (tax) incentives for EE and energy management, and carbon taxes. Historically, however, these policies and strategies have not incentivised EE in municipal waterworks. **The DoE's existing Demand Side Management initiatives focus mainly on street lighting and water heating, despite the fact that municipal waterworks typically account for more than 30% of total energy demand by municipalities.**

Policy Recommendation No. 10: “Recognition”, Adoption of Incentive-Based Recognition

The DWS' successful Blue, Green and No Drop incentive and awards programme is a good example of national government recognition of public health efforts at the local government level. DWS should consider broadening their existing award scheme to include energy savings initiatives at municipal waterworks.

Furthermore, existing funding mechanisms, such as the DBSA's Green Fund, which could provide financing (grants, concessional loans, first-loss capital, etc.) could be promoted to provide access to the capital to implement energy saving initiatives at municipal waterworks.

LEAD: DWS

Policy Recommendation No. 11: “Internal Incentives”, Waterworks-Based Incentives

Currently, internal incentive structures for CE implementation in municipal water and sanitation departments are typically not sufficient to encourage municipal officials to consider systems and initiatives that do not correspond directly to their daily operational duties. The government should consider implementing a set of internal incentives that municipalities can apply. It is understood that financial incentives, such as performance bonuses, are increasingly difficult to implement in local governments.

However, some municipal officials stated that there are more innovative ways of incentivising staff and noted that “recognition” is an important driver of on-site initiatives. For example, monthly recognition can be given to the waterworks site that saves the most energy, and a floating award can be given to the staff of the waterworks site that saves the highest proportion of energy each year, at a casual cocktail or gala dinner event.

LEAD: DOE | SUPPORT: DWS

ENERGY METERING AND MONITORING STANDARDS

No national standardised approach or best practice guidance exists for energy monitoring and metering. **There is usually insufficient energy monitoring at municipal waterworks, and where it exists, it is often not fully used to inform the optimisation of plant operations or reported to key decision-makers to inform asset acquisition or replacement.** Instead, metering and monitoring is mostly used to check whether any components have malfunctioned.

Policy Recommendation No. 12: “Metering Standards”, Standardisation of Data and Analysis

The government should set energy metering and monitoring standards for, inter alia, municipal waterworks. These standards should guide waterworks operations by determining: (1) which

plant components are using comparatively more electricity than can be expected based on their benchmarks¹⁰, and (2) whether their power demand profile is irregular. **LEAD: DOE**

Policy Recommendation No. 13: “Reporting & Verification”, Standardised Framework for Shortlisted Solutions

If adequate metering and monitoring is undertaken, it would be beneficial to organise proper reporting across municipal waterworks nationwide. This could contribute to the development of energy

benchmarks in the water and wastewater treatment sectors and would help inform government of the impacts of CE interventions. **LEAD: DOE | SUPPORT: DWS**

AVAILABILITY AND ACCESSIBILITY OF CE FINANCE

Financing is available in abundance, but seldom easily accessible. It was widely observed among financiers that there are sufficient financial resources to support CE interventions at municipal waterworks nationwide, but the private and public sector managers were not sufficiently informed as to how these might be accessed. Furthermore, financiers noted that it would be beneficial if the government integrated approaches to supporting municipal CE initiatives, because this would be perceived as reducing risks associated with new technologies.

Policy Recommendation No. 14: “Innovative Financing”, Unlocking Funding for Cleaner Energy

It is recommended that the government develop financing mechanisms other than the existing EEDSM grant. These innovative mechanisms could specifically target private investment to support energy savings initiatives at municipal waterworks. An example of such an initiative is the EE guarantee facility, currently under development by the DoE, supported by the NAMA (Nationally Appropriate Mitigation

Actions) Facility. This innovative mechanism will hopefully catalyse significant private investment in CE technologies and services in public buildings and infrastructure in South Africa. The government should seek other similar financing approaches to boost market-based investment in municipal waterworks.

LEAD: National Treasury, GTAC | SUPPORT: DOE, DWS

PROJECT LIFE-CYCLE COSTS

An appreciation for the life-cycle costing of assets is largely absent at municipal waterworks. Projects are paid from municipalities’ capital budgets, but financial, administrative and technical provisions to enable preventative maintenance, rehabilitation and renewal of these assets over their useful economic lives are seldom made.

¹⁰ For example, the energy requirement for a surface aeration treatment process could be benchmarked against the energy requirement for a fine bubble aeration treatment process.

Policy Recommendation No. 15

“Financing Conditionality”, Cleaner Energy Technologies for Energy Savings

It would be beneficial if the government required CE initiatives in their capital support budgets to local governments. This could be coordinated between National Treasury, DoE, DWS and the Department for Cooperative Governance and Traditional Affairs (CoGTA), to ensure it aligns with their respective grant-making conditions.

LEAD: NATIONAL TREASURY | SUPPORT: DWS, DOE, COGTA

2.4 CATALYSE CE PROJECT ORIGINATION AT MUNICIPALITIES

PROJECT ORIGINATION

Whilst the private sector may have appropriate technologies and financial resources, the initiation of CE interventions at municipal waterworks is squarely a function of local governments. A significant barrier to the potential replicability and scalability of CE interventions at municipal waterworks is a lack of organisational capacity.

Policy Recommendation No. 16: “Engaging the Private Sector”, Innovative Forms of Engagement

It is widely accepted in the public sector that initiatives that enable municipalities and the private sector to leverage their complementary skills and strengths to deliver public infrastructure and municipal services are beneficial.

The government should consider several approaches for local governments to engage the private sector, in ways that are legal, fair and transparent, and that foster relationships that will ultimately result in sustainable, long-term energy initiatives. These approaches should seek to improve project origination by municipal officials. For example, a project origination panel of strategic technical advisors could be formed and procured by district municipalities to advise on, draft and administer CE intervention contracts at municipalities.

LEAD: NATIONAL TREASURY, GTAC | SUPPORT: COGTA

BASELINE ENERGY AUDITING

The private financiers that were consulted during the project unanimously stated that credible baseline energy audits drastically reduce the risk profiles for CE interventions, resulting in low risk-adjusted premiums on loans to the technology providers, thereby increasing the bankability of their projects. Adequate baseline energy data is critical to identifying and understanding CE opportunities. Despite this, baseline energy data is lacking at many municipal waterworks and plant operators tend not to prioritise the gathering of technical data and information.

Policy Recommendation No. 17 “Progressive Realisation” Development of Baseline Audits

Realising the potential of CE solutions requires a lengthy process, which begins with a baseline energy audit. The government should consider initiatives that establish baseline audits at all municipal waterworks. To curb high roll-out costs, an approach could be adopted where a “lighter” screening exercise could be carried out initially by suitably qualified technicians in their respective municipalities. This could then be developed into a more complete baseline energy audit once adequate funding is available.

LEAD: DWS

BANKABILITY ASSESSMENTS

The technical and financial rigor applied to planning for CE interventions by municipalities is often not sufficient to produce bankable proposals. On multiple occasions during the current project, private financiers stated that many project proposals were not financed because their bankability assessments were of a poor standard and lacked the financial due diligence that is typically required to attract financing.

Policy Recommendation No. 18 “Banking on It!”, Simple CE Bankability Guidance

National Treasury should issue a short, practical template for the bankability assessment of CE interventions, to assist local governments and private service providers (particularly ESCOs) in attracting financing for their projects. This template could be developed in collaboration with financing institutions, to ensure they cover the requisite bankability assessment sections. Government institutions could leverage their networks to distribute this template, for example, SANEDI could leverage its ESCO register. This will also enable ESCOs to ensure they have covered the required elements when they prepare bids in response to CE opportunities at municipalities and help municipal officials with the technical evaluation of bids.

LEAD: NATIONAL TREASURY, GTAC

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