TRANSACTION ADVICE AND DEVELOPMENT OF ENERGY PERFORMANCE CONTRACT PROCUREMENT DOCUMENTS FOR PUBLIC SECTOR ENERGY EFFICIENCY (“Project”)

TASK 1A REPORT BEST PRACTICE REVIEW OF ENERGY PERFORMANCE CONTRACTING

Prepared for Deutsche Gesellschaft für Internationale Zusammenarbeit (“**GIZ**”) by Pinsent Masons Africa LLP (“**PM Africa**”)

Pinsent Masons

CONTENTS

Page

1. INTRODUCTION 3
   1.1 Context 3
   1.2 Purpose of the energy performance contracting review 3
   1.3 Summary of content 3
2. FORMS OF ENERGY PERFORMANCE CONTRACTS 4
   2.3 Key characteristics of energy performance contracts 4
   2.4 Shared savings contract 8
   2.5 Guaranteed savings contract 9
   2.6 Hybrid and alternative contracts 11
3. EXPERIENCES IN SOUTH AFRICAN EE PROCUREMENTS 12
   3.1 City of Cape Town Energy Efficiency Procurement 12
   3.2 Western Cape Provincial Government Energy Efficiency Procurement 14
   3.3 Eastern Cape Department of Public Works Energy Efficiency Procurement 15
4. INTERNATIONAL BEST PRACTICE 16
   4.1 Overview 16
   4.2 Germany 16
   4.3 India 19
5. SUMMARY OF FINDINGS AND RECOMMENDATIONS 24

APPENDIX 1 CITY OF CAPE TOWN

APPENDIX 2 WESTERN CAPE

APPENDIX 3 EASTERN CAPE

1. INTRODUCTION

1.1 Context

1.1.1 Pinsent Masons was appointed by the GIZ to assist with developing an implementation mechanism for the Energy Efficiency in Public Buildings and Infrastructure Programme ("**EEPBIP**"). The broad goals of the mandate are to assist GIZ and key stakeholders including the Department of Mineral Resources and Energy ("**DMRE**") as the programme manager for EEPBIP with:-

(a) understanding how best to implement energy performance contracting and carry out procurement of energy efficiency interventions for public sector institutions through energy services companies ("**ESCOs**");

(b) implementing an initial set of 4 municipal priority projects including through the review and update of business cases and preparing the energy performance contracts and procurement documentation; and

(c) providing for the wider programmatic rollout of the energy efficiency interventions through developing a suite of template procurement documents / tender packs for 4 different energy efficiency technologies.

1.1.2 This report falls within the first part of the scope, and focusses on trends and lessons learned both in the South African context and in international jurisdictions relating to the use energy performance contracts ("**EnPC**") by organs of state.

1.2 Purpose of the energy performance contracting review

1.2.1 The core purpose of this report is to take a sample of two institutions who have conducted energy efficiency procurements to assess the market response to such procurements and what contractual terms would best be used in a local South Africa context.

1.2.2 We have also provided a contrasting review from two international jurisdictions, being Germany as a developed energy efficiency jurisdiction, and India as a developing country.

1.2.3 Based on these observations, and through a comparative consideration of the international best practice, the final key aspect of this report is to provide a set of recommendations for contractual structuring of energy performance contracting under the EEPBIP.

1.3 Summary of content

This report is structured along the following basis:-

1.3.1 Paragraph 2 sets out the key concepts and contractual terms of an EnPC, and then details the various contractual structuring options for an EnPC, focussing on the two key forms, being the shared savings contract and the guaranteed savings contract.

1.3.2 Paragraph 3 is our analysis of the local experiences and key trends identified through our review of the documentation provided by GIZ in respect of 3 energy efficiency procurements.

1.3.3 Paragraph 4 sets out two international best practice case studies, being Germany and India.

1.3.4 Finally, paragraph 5 contains our recommendations for contractual structuring of EnPCs under the EEPBIP.

2. FORMS OF ENERGY PERFORMANCE CONTRACTS

2.1 In this first section, we canvass the forms which EnPCs can take. This is an important exercise as the specific forms of these contracts will impact how they will be regulated. The exact nature of the EnPC may impact the procurement process that an institution is required to follow. There may also be additional approvals required for certain forms of contract (and certain types of technology).

2.2 There are certain general characteristics which are applicable to all/most EnPCs (set out below), and EnPCs can also be broadly structured into two types of contracts:-

2.2.1 shared savings contracts, which usually entail an ESCO funding and supplying EE interventions with any resultant savings being divided between the ESCO and the institution; and

2.2.2 guaranteed savings contracts, which usually entail the institution paying for the EE intervention (via payments to the ESCO), with the ESCO providing a guarantee for the savings which the EE measures will yield.

2.3 Key characteristics of energy performance contracts

Services

2.3.1 The first key aspect of the EnPC is that it must define the services to be carried out by the ESCO. The services to be provided do not typically differ depending on the form of contract (that is, both a shared savings contract and guaranteed savings contract will likely have broadly similar service requirements).

2.3.2 The services to be provided by the ESCO may be a comprehensive EE service. A comprehensive scope of services would include:-[1]

(a) Preliminary design and engineering of the EE intervention. This is more likely to be included in the scope where the institution is procuring on a “technology neutral basis”.

(b) Construction/installation and commissioning of the EE intervention. This would form part of the core of an EnPC, whereby the ESCO will install either an approved EE technology or the intervention designed / developed as part of its design obligations. The commissioning may also entail inspection and approval by a third party.

(c) Operations and maintenance, which forms the second important core aspect of the EnPC. This service entails the institution essentially outsourcing the ongoing operations of the EE

[1] J. Singh et al, ‘Public Procurement of Energy Efficiency Services” Lessons from International Experience’, The World Bank at 34.

interventions (where applicable, for example a smart street-lighting projects will require constant back-office monitoring) and maintenance of the equipment, which will be carried out for the agreed duration of the EnPC (which may itself be linked to the operational life of the equipment/intervention).

(d) The final service component which may be included is the monitoring and verification of energy savings. This is necessary in performance contracts in particular as this is the mechanism through which the savings yielded by the EE intervention can be determined and the performance (and remuneration) of the ESCO is then gauged using this data. Verification of savings also forms an important part of the function, although the parties may rely on a third party or independent energy audit to carry out this particular function.

2.3.3 While it is important that the institution should be clear as to which services are required, from a risk transfer and competitive costing perspective it is generally considered preferable for the ESCO to determine how to provide the service. When procuring these services, therefore, the intention should be to allow the ESCO enough flexibility in its functional proposal to offer its best solution given the basic parameters set by the procuring institution (such as energy savings targets, performance requirements, and sharing of savings).[2]

Financing and payment

2.3.4 An EnPC will likely also provide for a mechanism to finance the EE interventions (in particular where the EnPC entails the installation of the EE interventions by the ESCO). The financing arrangements will also be closely tied to the payment mechanism (i.e. the compensation or benefit that the ESCO will receive) as discussed under the specific models (guaranteed savings and shared savings) below in paragraphs 2.4 and 2.5. [3]

2.3.5 The EnPC could thus provide for:-

(a) the ESCO itself being solely responsible for the financing of the EE equipment, and the ESCO will independently seek out financing from lenders or rely its own balance sheet;

(b) the ESCO funding the EE equipment but relying on a tailored lending arrangement or full/partial credit guarantee provided by a development finance institution under a broader EE programme (i.e. a specific funding package established by the DFI for the purposes of allowing ESCOs to participate in the EE programme); or

(c) alternatively, the institution may instead itself be responsible for payment for the EE equipment (and may seek loans from financing institutions or DFIs for this purpose, or alternatively rely on capital budget allocations or capital grants reserved for EE projects), with the ESCO then responsible for the installation and operation (and potentially even sourcing) of the equipment.

[2] J. Singh et al, 'Public Procurement of Energy Efficiency Services" Lessons from International Experience', The World Bank at 59.
[3] J. Singh et al, 'Public Procurement of Energy Efficiency Services" Lessons from International Experience', The World Bank at 34.

2.3.6 Usually linked to the financing mechanism, there will be provision under the EnPC for payment to the ESCO. This could take the form of fixed payments by the institution to the ESCO, variable payments dependent on whether savings targets are achieved (including incentives for exceeding targets), or a share in any actual savings achieved.

Payment and guarantees / security

2.3.7 There is a broad suite of guarantee / security mechanisms which can be included either within the EnPC or in related agreements. In the South African context in particular, the expectation is that both ESCOs and municipalities participating in the EEPBIP may not have sufficient balance sheet credit-worthiness to carry out EE interventions or finance the capital costs of equipment (although this could also be applicable to institutions at the national or provincial level, possibly to a lesser extent).

2.3.8 Accordingly, the following can all be considered as part of the EnPC:-[4]

(a) A DFI or similar institution can offer a **credit guarantee** to participating ESCOs (drawing on an EE fund established for this purpose), which will facilitate the ESCO to engage with banks and other commercial lenders in order to secure financing for EE equipment. This is particularly helpful for ESCOs which are SMMEs who may not otherwise have the credit worthiness to secure such financing and which present a credit risk that may deter lenders. It also helps to address the potential risk on late payment by municipalities (or other institutions) having a potential knock-on effect on repayments by ESCOs to lenders.

(b) The credit guarantee could be full (i.e. cover the ESCOs entire liability to the lender) or partial (i.e. only cover a portion of the ESCOs liability, for example 50%). The advantage of a partial credit guarantee approach is that more ESCOs can be included for coverage from the same guarantee facility, potentially facilitating broader participation. It also ensures that the ESCOs are correctly incentivised to perform as ESCOs will still be responsible for the balance of its liability not covered by the partial credit guarantee.

(c) As mentioned above, one of the potential risks for an ESCO is that it is not able to carry late payment (or non-payment) by the institution. Therefore, the institution itself may offer a **payment guarantee** for its obligations under the EnPC. or a government guarantee could be issued for the same purpose. This will be more likely to arise in the context of a guaranteed savings contract (as dealt with below) as this form of contract will more likely entail payments by the institution to the ESCO. Alternatively, the institution may be required to offer a **guarantee or security** in favour of the commercial lender where it has entered into a financing arrangement for the EE equipment.

(d) Finally, the ESCO itself may provide some form of **performance guarantee** for its performance under the EnPC. This guarantee would be linked to the achievement of stipulated energy savings targets and essentially serves to draw the risks related to the

[4] Sustainable Energy Authority of Ireland: *A Guide to Energy Performance Contracts and Guarantees*.

anticipated performance of the EE equipment away from the institution.

Risk allocation

2.3.9 An EnPC can be seen as a mechanism for transferring some of the risks relating to EE interventions from the public sector to the private sector ESCOs. The degree of risk transfer may depend on the institutions own risk appetite and budget, the capabilities and capacity of ESCOs to provide the desired services, and the availability of financing in the market. The goal of risk allocation and risk sharing should be to ensure a "win-win" for both the public and private sector, with risks being allocated to the party best able to mitigate and control that risk.

2.3.10 Typical risk transfer which an institution would look for includes:-[5]

(a) technical risk, which covers risks such as poor system or equipment performance or the incorrect sizing of equipment, generally due to deficient design or incorrect estimation of EE requirements.[6] Transferring this risk would entail the ESCO carrying out the energy audits and determining the optimal EE interventions to achieve energy savings, identify relevant technologies and suppliers and generally being responsible for any design and operational aspects of the EE interventions. Technical risk transfer is important in EnPCs as ESCOs usually have the internal expertise and skills within the EE sector which public institutions may lack. Alternatively, some technical risk may be retained whereby the institution provides a pre-approved set of suppliers from which the ESCO must purchase the EE equipment;

(b) financial risk, being the risk of repayment default to lenders, can pose a major risk of project termination.[7] Where this risk is transferred, the ESCO takes on the liability for debt repayment, such that if there is any shortfall in energy savings, the ESCO itself would be responsible for "making up" the gap in repayment. Financial risk transfer will tend to follow the party who is financing the EE equipment, and where the institution or government has issued any form of security in respect of the debt, this lessens the degree of risk transfer to the private sector;

(c) construction / installation risk, which refers to the risks of cost overruns and delays during the construction process, which can be due to price volatility of materials, labour issues or exchange rate and interest rate changes (also depending on whether equipment must be imported or sourced locally), as well as poor weather and delays in obtaining approvals.[8] Transfer entails making the ESCO liable for the successful installation, testing and commissioning (to the extent required) of the EE equipment and any delays or cost overruns related to the construction or installation phase of the EE project, although ESCOs may look for some mitigation of political (labour) risk and delays in approvals where these are due to the various responsible authorities;

---

[5] Martiniello et al, *Energy Performance Contracting and Public-Private Partnership: How to Share Risks and Balance Benefits*, Energies 2020, 13, 3625.
[6] Lee et al, *Risks in Energy Performance Contracting (EPC) projects*, Energy and Buildings 92 (2015) at 118.
[7] Lee et al, *Risks in Energy Performance Contracting (EPC) projects*, Energy and Buildings 92 (2015) at 118.
[8] Lee et al, *Risks in Energy Performance Contracting (EPC) projects*, Energy and Buildings 92 (2015) at 118.

(d) performance risk, which is partly related to technology risk but also covers operational aspects such as equipment degradation and breakdowns and faulty operation, which can come down to poor maintenance, poor training, or incorrect initial assessments of equipment capabilities, as well as unexpected consumption patterns, which may occur when the baseline usage changes from initial energy audits.[9] Transfer of this risk is generally an important aspect of EnPCs across all models, and is essentially the basis of “performance contracting”.

2.4 **Shared savings contract**

The shared savings contract is one of the key models for an EnPC and is primarily defined by the fact that the institution and the ESCO will share in any cost savings experienced by the institution (usually in the form of reduced electricity charges). The key aspects of the model are set out below.

2.4.1 Financing:-

(a) Under the shared savings model, the ESCO is responsible for providing financing for the EE interventions, including securing loans from commercial institutions or any specific EE funding facility. The ESCO will then purchase the EE equipment and fund the construction, installation, operations and maintenance, and will be responsible for any repayments to lenders.[10]

(b) Under this model, the institution itself will not typically make any contribution to financing, nor will it directly remunerate the ESCO for its provision of the EE services. For this reason, a shared savings contract can be quite desirable for institutions such as municipalities which can struggle to raise the finance for EE interventions, and significantly reduces any financial risks for the institution. [11]

2.4.2 Cost recovery:-

(a) The shared savings contract is structured as a performance contract, meaning that the costs of (i) purchasing and installing and (ii) maintaining the EE equipment must ultimately be recovered from the performance of the equipment through energy savings.

(b) In order for this structure to work correctly, an important aspect of cost recovery is to establish a performance baseline (for example, average monthly electricity bill for a building), against which the subsequent performance (and achieved savings) can be measured.

(c) This will generally be covered under the monitoring and verification provisions of the EnPC, including what the baseline is (likely established through the detailed energy audit), the processing for measuring, recording and then reporting energy savings (i.e. measured reductions in the electricity bill and also mechanisms for determining whether the EE measure itself resulted in the reduction in energy usage) and finally verification of the savings (for example, auditing by an independent party). Depending on the exact nature

[9] Lee et al, *Risks in Energy Performance Contracting (EPC) projects*, Energy and Buildings 92 (2015) at 118.
[10] J. Singh et al, ‘Public Procurement of Energy Efficiency Services” Lessons from International Experience’, The World Bank at 35.
[11] J. Singh et al, ‘Public Procurement of Energy Efficiency Services” Lessons from International Experience’, The World Bank at 35.

of the EE intervention, more sophisticated monitoring may be included such as the installation of real-time energy usage monitoring capabilities to be operated by the ESCO and baseline adjustment may also be provided for (for example, if the energy usage profile changes).[12]

2.4.3 Sharing mechanism:-

(a) The core differentiating feature of the shared savings contract is that the measured and verified value of the energy savings due to the EE intervention is shared between the institution and the ESCO. Ultimately, the purpose of this share is to ensure that the ESCO can (i) recover its expenditure across the duration of the EnPC and (ii) obtain a reasonable commercial return for its investment.

(b) In order to calculate the appropriate share between the institution and the ESCO, there are two primary levers which can be adjusted:- (i) the first is the actual percentage split or allocation; and (ii) the second is the duration of the EnPC. Where greater allocation is given to the ESCO, this will lower the duration of the intervention.

(c) Thus, the duration of the EnPC can vary, with typical periods around 3 to 10 years, dependent on the scale of investment, the financing terms, and the percentage allocation of energy savings.[13] The percentage allocation may be specified by the institution when procuring the EnPC (or alternatively, a minimum allocation to the institution may be specified, with values around 5-10% having been used).[14] Typical values may be 20% for the institution and 80% to the ESCO, or alternatively a sliding scale could be provided, with greater allocation to the ESCO in the earlier period of the EnPC to recover construction or installation costs, and being weighted more towards the institution in the latter part of the term.[15]

2.5 Guaranteed savings contract

The guaranteed savings model is the second major contractual model for EnPCs. This model is generally characterised by the fact that the ESCO will guarantee that a certain level of energy saving is achieved by the EE intervention. The guaranteed savings model has been historically the more popular approach to energy performance contracting, in particular in more developed economies, although models such as shared savings have become more popular in recent years.[16] The key characteristics of this model are set out below:-

2.5.1 Financing:-

(a) Under this model, the EE interventions / equipment are funded by the institution itself, either relying on its balance sheet / budgetary allocations (including potentially EE specific grant funding) or through the lending market. The intention is that the institution will

[12] Lee et al, *Risks in Energy Performance Contracting (EPC) projects*, Energy and Buildings 92 (2015) at 126.
[13] J. Singh et al, 'Public Procurement of Energy Efficiency Services" Lessons from International Experience', The World Bank at 35.
[14] J. Singh et al, 'Public Procurement of Energy Efficiency Services" Lessons from International Experience', The World Bank at 86-87.
[15] Martiniello et al, *Energy Performance Contracting and Public-Private Partnership: How to Share Risks and Balance Benefits*, Energies 2020, at 10-11.
[16] Martiniello et al, *Energy Performance Contracting and Public-Private Partnership: How to Share Risks and Balance Benefits*, Energies 2020, at 6.

rely on the savings achieved from the EE intervention to cover the costs of finance such as debt repayments.

(b) The disadvantage of this model, particularly in developing economies such as South Africa, is that it reduces available capital budget which could be spent elsewhere, and potentially increases already significant government debt ratios, whilst retaining most of the financial risk with the institution. However, the approach does grant more direct control of the EE solution to the institution.

(c) Thus, in the South African context, it is less likely that debt financing will be relied upon given already high debt ratios in the public sector and constrained balance sheets making commercial debt difficult to secure. For municipalities, funding is most likely to be obtained through the Energy Efficiency Demand Side Management Grant ("**EEDSM Grant**"). In terms of the Medium Term Expenditure Framework, in financial year 2022/23 a total of R231 million has been allocated and for 2023/24 a further R232 million has been allocated for this grant. Municipalities can apply for this grant in order to fund EE interventions in municipal buildings, streetlights, traffic lights, wastewater treatment works and pump stations.

2.5.2 Payments:-

(a) The ESCO will perform the specified EE services (e.g. construction or installation, operations and maintenance, monitoring and verification), and in return for these services, the institution will pay the ESCO an agreed fee.

(b) However, the payment of this fee will generally be contingent upon the agreed performance envelope for the EE equipment being achieved. In addition, the EnPC may provide incentive payments where the expected performance is exceeded and greater than anticipated savings are achieved.

2.5.3 Guarantee:-

(a) The final key aspect of this contracting form is the "guaranteed savings" aspect. Thus, not only is the payment to the ESCO contingent on the achievement of the agreed savings, but the achievement of a minimum saving is "guaranteed" by the ESCO. The guarantee amount is generally linked to the debt repayments which the institution has incurred to finance the EE intervention, and is thus intended to ensure that the minimum savings amount is sufficient to cover debt repayment obligations.[17]

(b) In circumstances where the guaranteed savings are not achieved, the ESCO will then be responsible for covering any shortfall between the guaranteed and actual savings realised.

---

[17] See generally Martiniello et al, *Energy Performance Contracting and Public-Private Partnership: How to Share Risks and Balance Benefits*, Energies 2020.

2.6 Hybrid and alternative contracts

2.6.1 First Out

(a) The "first out" is essentially a variant of the energy savings contract where the ESCO takes 100% of the energy savings until it has recovered its full expenditure (plus a return) or until the expiry of the term.

(b) Experience has shown that this method can increase competitiveness in the bidding process through presenting more attractive, immediate returns to bidders and has been popular in developed economies.[18] The main advantage of this contract structure for institutions is that it reduces the required length / term of the EnPC, assuming the anticipated returns are achieved. However, the trade-off is that the institution would have to wait for a longer period before achieving realising any savings for itself.

2.6.2 *Chauffage*

(a) The *chauffage* model is primarily popular in Europe, especially France. Under this model, the ESCO is responsible for providing defined energy services such as heating, cooling, lighting or electricity, and the institution pays a certain unit price for that service (usually an agreed percentage reduction in its previous energy bill which the ESCO is responsible for delivering).[19]

(b) Under the model, either ownership of existing assets is transferred to the ESCO which then provides O&M services, or the ESCO finances and retains ownership of the EE assets. This form of contract is low risk for institutions as it can rely on an agreed unit cost for a particular service up front, although typical *chauffage* contracts are longer in length, between 20 and 30 years.[20]

2.6.3 Hybrid

(a) The hybrid performance contract is essentially an EnPC that features some or all elements from both a guaranteed savings contract and a shared savings contract.

(b) One such example is the EE programme of the Western Cape Department of Transport and Public Works. The contract was broadly structured as an shared savings contract, but permits the Department to make Task Order requests for specific work, whilst the ESCO can either be reimbursed through energy savings or performance based payments, or instead through the payment of a direct service fee by the Department based on agreed rates which were submitted during tendering. In this way, the contract can potentially have the flexibility to cater for a number of different

---

[18] J. Singh et al, 'Public Procurement of Energy Efficiency Services" Lessons from International Experience', The World Bank at 156.
[19] J. Singh et al, 'Public Procurement of Energy Efficiency Services" Lessons from International Experience', The World Bank at 35.
[20] See European Union: Energy Performance Contracting: An Alternative Financing Scheme available at https://www.interreg-central.eu/Content.Node/EPC-an-alternative-financing-scheme.html accessed on 01 March 2022; and J. Singh et al, 'Public Procurement of Energy Efficiency Services" Lessons from International Experience', The World Bank at 35.

interventions as well as cover both commercially viable interventions as well as interventions which require public funding.

(c) The benefit of this style of hybrid contract is an increase in flexibility, in that it allows the ESCO relative freedom to identify and carry out EE measures, whilst simultaneously giving the institution an avenue for requesting specific interventions (even where these may not necessarily be highly profitable for the ESCO, in which case a simple service payment mechanism can be used).

3. EXPERIENCES IN SOUTH AFRICAN EE PROCUREMENTS

The trends and experiences set out in this section have been supported by 'programme review template' questionnaires ("**questionnaire**") prepared for purposes of extracting relevant information, and which were populated by reference to available documentation and attached hereto as Appendices 1, 2 and 3. Please note that we have focused on (i) performance-based contracting in the City of Cape Town ("**CCT**"), wherein the relevant questionnaire provided to us was populated with reference to a tender document (dated 2016); (ii) the Western Cape shared savings contract procurement, with inputs from the Western Cape Department of Transport and Public Works ("**DTPW**"); and (iii) the Eastern Cape shared-savings contract procurement, wherein the relevant questionnaire was populated with reference to a request for proposal ("**RFP**") which was provided to us.

3.1 City of Cape Town Energy Efficiency Procurement

3.1.1 The scope of the procurement, according to the tender document, was to appoint a successful tenderer which would be required to (i) undertake an audit of energy consumption patterns in four building complexes; (ii) propose and specify a suite of individually costed lighting interventions for each building; (iii) identify and provide other individually costed EE interventions, where these are possible and viable, which could be pursued by the CCT as funding was made available; and (iv) upon formal instruction from the CCT agreeing scope and cost of work to be undertaken, execute the approved interventions. This tender required full EE interventions to be proposed and implemented at the selected buildings with a performance guarantee of the savings.

3.1.2 The tender document specified that LED lighting would be the only acceptable technology for replacing the existing lighting (such LEDs which must be approved by the South African Bureau of Standards ("**SABS**")).

3.1.3 There is not enough information available to determine the duration of the awarded contract though the tender document stated that work was to start immediately upon the award and signing of the final tender documents, or as alternatively agreed between the CCT and the successful tenderer. Further, the successful tenderer was required to confirm, within one week from notification, the proposed schedule of activities for the contract duration showing major activities and milestones; calendar time in months, and the programme of work with main and sub tasks.

3.1.4 The tender document contained a standard form EnPC comprised General Conditions of Contract ("**GCC**") issued by the National Treasury as supplemented by Special Conditions of Contract ("**SCC**"). In terms of the GCC, the 'purchaser' would be the CCT, being the party purchasing the goods and the 'supplier' would be the successful tenderer.

3.1.5 In terms of funding, it was envisaged under the SCC that the CCT would issues a purchase order and would then pay the ESCO for its invoices on a monthly cycle. Therefore, it was envisaged that the CCT would be funding the EE measures and therefore a guaranteed savings contracting arrangement was envisaged.

3.1.6 The GCC and SCC contained in the tender document do not provide for the scope of work though the scope of work is provided for elsewhere in the tender document ('specifications') as follows:-

(a) detailed audits and submission of same;

(b) submission of proposed interventions i.e. implementation plans;

(c) implementation of interventions;

(d) training at completion of implementation; and

(e) upon completion of interventions, development of as-built lists and identification of stock items to be stored by the CCT.

3.1.7 With regards to payment mechanisms, the GCC stated that the method and conditions of payment to be made to the supplier under the contract would be specified in the SCC, which provides that:-

(a) a monthly payment cycle would be the norm. All invoices received for goods and services which would be dated on or before the 20th of a particular month would typically be paid between the 23rd and 26th of the following month. The actual payment run dates would be dependent on the number of days in the month and the influence of public holidays; and

(b) the CCT would issue official purchase orders for services required under the contract. No work would be undertaken without an official purchase order that was addressed to the successful tenderer. The relevant purchase order number would be reflected on every invoice and no payments would be processed without an official purchase order.

3.1.8 The SCC required the successful tenderer to furnish to the CCT, a performance guarantee which was to be issued by an appropriate financial institution and submitted within 14 days of notification of the contract award. This guarantee would be 5% of the total tendered sum and lodged with the CCT before implementation was permitted to commence.

3.1.9 The SCC also required the CCT to be furnished with a savings guarantee by the supplier to guarantee the savings resulting from the interventions from the completion date of installations up until the end of the payback period i.e. when the projected savings have paid for the investment incurred. In other words, it was envisaged that the implementation plan provided to the CCT would have clearly stipulated the annual savings to be achieved from the proposed interventions and these savings were to be guaranteed in the form of a bank issued savings guarantee which needed to be submitted upon completion of installation up until the end of the payback period.

3.1.10 The issue of both a performance guarantee and a savings guarantee bv the supplier are typical of a guaranteed savings contract.

3.2 **Western Cape Provincial Government Energy Efficiency Procurement**

3.2.1 The scope of the tender was to procure the services of a suitable service provider to undertake projects of energy and water savings in a number of provincial facilities (buildings) to reduce energy and water consumption in these buildings. The buildings were mainly in the domains of the WCDPTW and the Western Cape Department of Health ("**DOH**").

3.2.2 The energy savings target was to reduce the average electricity consumption by the Western Cape Government in the buildings by at least 10% over the duration of the interventions.

3.2.3 In terms of the funding mechanism used by the WCDTPW, the programme was stated to be self-funded, and although we were not provided with further information by WCDPTW, we understand this would mean from its own budgetary allocations.

3.2.4 The tender document specified the standard EnPC as the NEC3 Term Service Short Contract (September 2008) ("**NEC3: TSSC3**" or "**contract data**"). The service period was stated as 36 months which covered both installation of the relevant interventions and maintenance.

3.2.5 The contract data further defined the scope of work as detailed energy and/or water audits on the facilities as specified in the 'Task Order' (in terms of which all interventions must be initiated by WCDTPW), and arising from those audits to propose and specify a suite of individually costed energy and/or water efficiency interventions for each of the building(s) contained in these facilities. The proposed interventions would then be ranked separately, and proposals submitted to the 'Employer' (the WCDTPW). The 'Contractor' (the successful tenderer) would, on completion of the interventions, remain accountable for the maintenance and the energy/water savings actually achieved for the duration until the completion date. The Contractor was required to:-

(a) supply, install, and operate equipment and technology to realise targeted and guaranteed energy consumption savings for buildings in the identified DTPW regions for a duration of set period; and

(b) be responsible for maintenance of installed equipment and technology.

3.2.6 The basis for remuneration for the EE service would primarily be the shared savings model as priced in a pricing schedule provided for in the contract data. The basis for remuneration for the water efficiency service was the 'Performance Bonus' as described in item 1.8 of the 'Service Information' attached to the contract data. In addition, the option could be exercised through the issue of a Task Order whereby the Employer could decide to pay, partially or wholly, for certain capital expenditure related to interventions and incorporating such expenditure into the shared savings or Performance Bonus calculations for that Task Order. Alternatively, the Employer could also issue Task Orders instructing the provision of services which are not remunerated according to shared savings but instead constitute a service fee paid in accordance with the tendered rates in the pricing schedule.

3.2.7 As per the contract data, the Contractor was expected to provide performance guarantees in line with guaranteed savings objectives although it is not specified what the value or form of these guarantees would be. A payment guarantee by the Employer was not required as payment was paid out from the savings achieved.

3.2.8 We note that the Western Cape Government- procurement is the only one in respect of which we have information regarding the relative success of the programme. Our understanding is that a contract with an ESCO was concluded, which is currently still active. The WCDPTW stated that it would be willing to run a similar programme again, and that the key issue experienced under the programme was the delays in obtaining approval from National Treasury in terms of section 66 of the Public Finance Management Act 1 of 1999, which places certain obligations on provincial departments when engaging in future financial commitments (please see our report on Task 1B for further details).

3.3 Eastern Cape Department of Public Works Energy Efficiency Procurement

3.3.1 In terms of the RFP, the Eastern Cape Provincial Government Department of Public Works ("**Department**" or "**ECDPW**") engaged the market for assistance in implementing an integrated model for reduction of energy, water, rates, taxes and waste consumption in state-owned buildings. The RFP termed the programme as the 'Implementation of Integrated Shared Savings Contracts ("**ISCC**") Programme' related to energy, water, rates, taxes and waste management on facilities owned by the DPW. Overall outcomes and deliverables included to reduce the average electricity and water consumption by 60% over the duration of the contract and 20-25% reduction related to rates and taxes cost over the contract period. The RFP made use of the term 'Utilities Services Companies' ("**USCOs**").

3.3.2 The RFP contained a GCC though specific contract terms were not available for review, and the duration of the contract was stated to be 7 years as per the objectives of the RFP.

3.3.3 The pricing structure as from the RFP is that the project is "self-funded" by the USCO, meaning that all capital investment risk would remain with the USCO. The USCO would recover its investment from the savings realised under the contract, and savings were required to be shared on a 50:50 basis.

3.3.4 The GCC does not contain a scope of work though this is provided elsewhere in the RFP, generally, and includes, amongst others, that the appointed service provider was expected to undertake the following:-

(a) audits to establish consumption baselines;

(b) compilation of project plans;

(c) supply, installation and operation of equipment;

(d) provide technology, management, and maintenance thereof to realise energy savings;

(e) training and workshops;

(f) project management for teams responsible for implementation;

(g) operation and management of shared savings contract in DPW; and

(h) compilation of reports over agreed periods.

3.3.5 In terms of funding and performance guarantees, the RFP stated that USCOs were required to submit proof of funding to undertake the projects, this being a funding guarantee of a minimum of R40 000 000,00 (Forty million Rand) from a reputable financial institute i.e Development Finance Institution, Registered Commercial Bank, or a registered financial institution. In addition, the GCC contains a clause on performance security which requires that, within 30 days of receipt of notification of the contract award, the successful tenderer was to furnish the purchaser (being the ECDPW) with a performance security, "*of the amount specified in [the] SCC*". We note that an SCC was not provided with the RFP.

3.3.6 The proceeds of the performance security were to be payable to the purchaser as compensation for any loss resulting from the service provider's failure to complete its obligations under the contract, and discharged by the purchaser and returned to the service provider not later than 30 days following the completion date of the service provider's performance obligations.

3.3.7 We note that information relating to the specific payment mechanisms under the awarded contract are not available – the GCC contained in the RFP stated that the "*method and conditions of payment to be made to the provider under this contract shall be specified*", most likely in the SCC which we have not had sight of.

4. INTERNATIONAL BEST PRACTICE

4.1 Overview

4.1.1 Overall, it has been reported that as of 2021, the global ESCO market as a whole "*increased by around 6% in 2020 to USD 33 billion*", with the growth mainly centred in China; and other ESCO European markets, emerging markets and developing economies, either remained 'flat or contracted'.[21]

4.1.2 Accordingly, we have selected Germany as the first EE market to review, as it is one of the developed markets showing a strong trend to increased financing of EE measures. In addition, Germany is considered a leading market in the use of EnPCs and pre-approved providers, with certain organisations providing model contracts.[22]

4.1.3 We have also selected India, as being indicative of a developing jurisdiction with comparable governance structures and financial constraints as South Africa.

4.2 Germany

4.2.1 Germany has a recognised history of energy performance contracting in the public sector and is considered the largest and most developed market in Europe. However, prior to 2020, there was some evidence that public sector has been reluctant to rely on energy performance contracting in respect of EE programmes due to a number of factors; constrained budgets at all levels of government; lack of incentive to implement EE measures; lack of technical knowledge to optimize programmes; limited energy management functions; and organizational complexity.[23]

---

[21] International Energy Agency (IEA), 'Energy Efficiency 2021' (available at: https://iea.blob.core.windows.net/assets/9c30109f-38a7-4a0b-b159-47f00d65e5be/EnergyEfficiency2021.pdf)
[22] Germany 2020 energy policy review.
[23] J. Singh et al, 'Public Procurement of Energy Efficiency Services" Lessons from International Experience', The World Bank.

Procurement and contracting

4.2.2 In 2020, the German Federal Government announced that EE measures would be a key criterion for public procurement, stating; "*[b]y consistently purchasing energy-efficient products and services, the Federal Government is making a significant contribution to achieving climate protection goals with its own departments. This means that a completely climate-neutral administration, which we want to achieve in the medium term, is no longer just wishful thinking*".[24] The public sector therefore has an obligation to consider EE measures and procure goods and services which are of the highest EE class.

4.2.3 Features of the German EnPC and EE programme measures have been proposed as being the following:-[25]

(a) Audits are rarely required unless the programme is that of a two-stage contract where an audit is required to be carried out by the successful tenderer. EPC guidelines generally provide technical information on energy usage and similar concerns.

(b) A package of EE measures are provided for in a contract, those inclusive of services and equipment. This could include obligatory measures which are generally financed by the procuring entity.

(c) With regards to evaluation criteria for ESCOS, these will be evaluated on the amount of guaranteed energy savings over the contract life, guaranteed investment, the procuring entity's share in the guaranteed savings (and share in additional savings), and project management.

(d) Procurement is done in line with German and European Union procurement laws, with either a construction or service contract chosen under limited or negotiated procurement. Agencies have developed standard procurement documents and contracts.

(e) The contractor generally provides financing with a commercial bank loan or from its equity.

(f) The ESCO guarantees a minimum saving and the shared savings arrangement is included in the contract. Where the ESCO fails to meet the guaranteed saving, it is generally required to make a 5-10% compensation payment to the procuring institution and may be required to provide a bank guarantee in this respect.

(g) Germany also makes use of measurement and verification practices which are regulated through contractually mandated energy management systems.[26]

4.2.4 Looking at procurement of EnPCs in particular, some of the complexity and time-intensiveness in respect of procurement process for EE programmes can be attributed to German procurement laws, as the award of contracts must be

[24] Federal Ministry for Economic Affairs and Climate 2022, Legal Notice, 'New Federal Funding for Efficient Buildings'.
[25] J. Singh et al, 'Public Procurement of Energy Efficiency Services" Lessons from International Experience', The World Bank.
[26] J. Singh et al, 'Public Procurement of Energy Efficiency Services" Lessons from International Experience', The World Bank.

through a competitive process and facilitate participation by both small and medium-sized enterprises through division into lots.[27]

4.2.5 When procuring EnPCs, public institutions have generally relied on requests for proposals ("**RFP**") which include or stipulate the following:-[28]

(a) the guaranteed annual energy cost savings;

(b) client share in the guaranteed savings and any savings above this limit;

(c) detailed descriptions of the EE measure and its costs; and

(d) all other relevant evaluation criteria.

4.2.6 Tenderers are thereafter short-listed with reference to their technical and price bids.

Financing

4.2.7 In terms of financing, tenderers are usually expected to finance public sector EE programmes, though the procuring entity may provide financing in part (in particular where the RFP includes obligatory measures to renovate building envelopes, in which case the increased costs would make EnPC durations prohibitively lengthy without partial funding from the client institution).

4.2.8 It should be noted that German ESCOs are able to fund EE measures through on balance sheet equity financing (which is difficult particularly for smaller ESCOs), though the most commonly seen trend is that financing is done through commercial bank loans.[29] It has been noted that ESCOs are able to forfeit their shares/payments from the procuring entity to the financial institution, although limited to around a value of generally 70-80% of the agreed payment to the ESCO.[30] As of 2020, one of the main sources of EE programme and measure financing is the 'Energy and Climate Fund' ("**EKF**") which was established in 2010.[31]

4.2.9 Shared savings between the ESCO and procuring entity are usually agreed upon upfront and at a certain percentage though performance guarantees are also required in the sense of a minimum level of energy savings, which also limits payments of the procuring entity to the ESCO where the guaranteed savings are not achieved.[32] An ESCO may be required to provide a bank guarantee as well.

4.2.10 Germany is a member country to the International Energy Agency ("**IEA**") which examines energy issues, including energy efficiency which the goal of advocating policies that aim to promote the reliability, affordability and sustainability of energy in its 30 member countries, 8 association countries,

[27] J. Singh et al, 'Public Procurement of Energy Efficiency Services" Lessons from International Experience', The World Bank.
[28] J. Singh et al, 'Public Procurement of Energy Efficiency Services" Lessons from International Experience', The World Bank.
[29] B. Boza-Kiss et al, Practices and opportunities for Energy Performance Contracting in the public sector in EU Member States, 2017; J. Singh et al, 'Public Procurement of Energy Efficiency Services" Lessons from International Experience', The World Bank.
[30] J. Singh et al, 'Public Procurement of Energy Efficiency Services" Lessons from International Experience', The World Bank.
[31] Germany 2020 energy policy review.
[32] J. Singh et al, 'Public Procurement of Energy Efficiency Services" Lessons from International Experience', The World Bank.

and otherwise more broadly. The IEA published an update on global developments in EE in 2021 (“**2021 update**”), which is a report that is published annually by the IEA.[33] The 2021 update explored recent trends in EE markets at sectoral and economy-wide levels.

4.2.11 The 2021 update reports that Germany’s spending on EE in buildings increased exponentially in 2020. This is attributed to the state-owned development bank KfW (originally ‘Kreditanstalt für Wiederaufbau’) increasing efforts in EE construction and renovation investments to EUR 30 billion which is a sixth of the year’s global buildings-related EE spending.[34] The majority of this investment resulted from changes that were made to present more attractive EE programmes, though recovery spending also played a part.[35] Access to funding programmes were made easier and more transparent with an online tool to help find funding for EE, called ‘Förderwegweiser Energieeffizienz’.[36]

4.2.12 Private parties and municipalities are expected to benefit from these changes in the promotional programmes, with the key changes stated as:-[37]

(a) The repayment grants in the loan programmes will increase in line with the requirements of the German Federal Government's Climate Action Programme 2030;

(b) repayment grants will be increased for the rehabilitation of residential buildings. The higher investment and loan repayment grants will lead to negative interest rates on loans;

(c) the grant for the rehabilitation of residential buildings will increase by 10 percentage points; and

(d) the maximum funding amount for energy-efficient houses in the loan and grant for residential buildings will be increased from EUR 100,000 to EUR 120,000.

4.2.13 Additional changes through the ‘Federal Funding for Efficient Buildings programme’[38] include increased maximum loan amounts, simplified processes, and more support for and use of efficient prefabricated elements.[39] Investors are given the option to choose between (i) reduced interest loans from KfW and (ii) direct grants provided though the Federal Office for Economic Affairs and Export Control; though overall financial support is said to increase with the efficiency level of the EE measure.[40]

4.3 **India**

4.3.1 While India is not a member to the IEA, it is an acknowledged association country, along with South Africa. The 2021 update states that construction

---

[33] International Energy Agency (IEA), ‘Energy Efficiency 2021’ (available at: https://iea.blob.core.windows.net/assets/9c30109f-38a7-4a0b-b159-47f00d65e5be/EnergyEfficiency2021.pdf).
[34] International Energy Agency (IEA), ‘Energy Efficiency 2021’.
[35] International Energy Agency (IEA), ‘Energy Efficiency 2021’.
[36] KfW Press Release. ‘climate resolutions of government implemented’, 2020 (available at: https://www.kfw.de/About-KfW/Newsroom/Latest-News/Pressemitteilungen-Details_563264.html).
[37] KfW Press Release. ‘climate resolutions of government implemented’, 2020.
[38] Federal Ministry for Economic Affairs and Climate 2022, Legal Notice, ‘New Federal Funding for Efficient Buildings’ (available at: https://www.bmwi-energiewende.de/EWD/Redaktion/EN/Newsletter/2021/01/Meldung/news1.html).
[39] Federal Ministry for Economic Affairs and Climate 2022, Legal Notice, ‘New Federal Funding for Efficient Buildings’.
[40] International Energy Agency (IEA), ‘Energy Efficiency 2021’.

activity decreased in India by around 15% in 2020 as corporate budgets came under 'severe constraints'.[41]

4.3.2 It has been theorised that vendor ESCOs in India that offer solutions based on one EE measure (ie. technology), as opposed to comprehensive measures, rely on the shared-savings EPC model while the maturation of EPC markets leads to greater use of the guaranteed savings model.[42] However, we have set out more detail on the programmes and structures utilised in India below.

EE programmes and governance

4.3.3 Recent trends in India indicate that EE programmes tend to specify a minimum level of savings – which is allegedly not common in more developed jurisdictions.[43] India has also made use of pre-qualification requirements to limit low-quality proposals and requires an ESCO to provide a financial performance guarantee, and measurement and verification activities are generally carried out by independent third parties.[44]

4.3.4 In 2009, the Indian Government established a so-called "super ESCO", 'Energy Efficiency Services Ltd' ("**EESL**"). EESL has ben responible for implementing large-scale EE projects through financing such as bulk procurement for lower prices, revenue sharing and public subsidies, have been implemented.[45] Highlighted projects are estimated to have resulted in over 50 000 GWh of electric savings, annually, as well as socio-economic benefits such as job creation, these projects being:-[46]

(a) Unnat Jyoti by Affordable LEDs for All (detailed further below);

(b) the Street Light National Programme;

(c) the Building Energy Efficiency Programme;

(d) the Smart Meter National Programme; and

(e) E-Vehicle Programmes and decentralised solar programmes.

UJALA Programme structure

4.3.5 The programme which is widely considered the largest zero-subsidy domestic lighting programme, Unnat Jyoti by Affordable LEDs for All ("**UJALA**")[47] for domestic LED's, has received global attention for its innovation and successes. The Press Information Bureau ("**PIB**") of the Government of India reported in January 2022 that the success of the programme lies in its unique strategic approach to EE:-[48]

[41] International Energy Agency (IEA), 'Energy Efficiency 2021'.
[42] O. Nix, 'Unlocking Energy Performance Contracting in India' (available at: http://www.indiaenvironmentportal.org.in/files/unlocking%20energy_0.pdf).
[43] J. Singh et al, 'Public Procurement of Energy Efficiency Services" Lessons from International Experience', The World Bank.
[44] J. Singh et al, 'Public Procurement of Energy Efficiency Services" Lessons from International Experience', The World Bank.
[45] International Energy Agency (IEA), 'Energy Efficiency 2021'.
[46] International Energy Agency (IEA), 'Energy Efficiency 2021'.
[47] Indian Ministry of Power Press Release, 2022 (available at: https://pib.gov.in/PressReleasePage.aspx?PRID=1787594).
[48] Indian Ministry of Power Press Release, 2022.

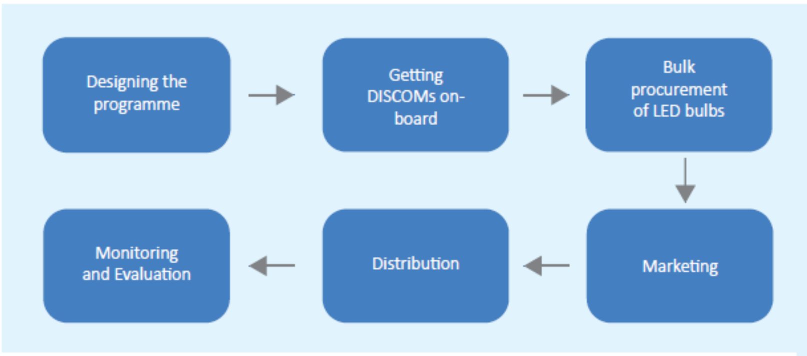
(a) As of January 2022, 47,778 million kWh per annum energy has been saved. 9,565 MW of peak demand has been avoided, along with 3,86 core tonnes of reduction in CO2 emissions.

(b) The programme makes use of e-procurement, thereby ensuring transparency and competition and resulting in significant reductions of transaction cost and time which improves process efficiency.

(c) The programme has achieved a reduction of 85% of the costs of LED bulbs which reportedly led to a larger pool of bidders and enhances quality and increased competition by leveraging processes and mass procurement. The procurement strategy is known as the 'Unique Selling Point ("**USP**") of Programme UJALA'.

(d) A report[49] on the USP and effectiveness of the UJALA programme processes has resulted in the following processes being highlighted as key:-

Figure 10: **UJALA** programme processes



Source: A. Chunekar, S. Mulay & M. Kelkar; Understanding the impacts of India's LED bulb programme "UJALA", 2017

4.3.6 According to this report:-[50]

(a) The first step in designing an EE programme is 'load research' generally via questionnaires which identifies patterns of use by consumers and estimated savings potentials, particularly where a "*deemed savings approach is used to estimate the potential savings*". This deemed savings approach is described as savings from an EE measure being estimated by the use of assumptions for parameters that contribute to energy consumption – such assumptions which should be based on documented historical data on actual measurement and analyses of savings achieved. In this context, identifying technical specifications of the EE measure technology to be procured is also necessary.

(b) The next key aspect is ensuring "DISCOM", being distribution companies, participation in the process, as research revealed that DISCOM's do not prioritise EE programmes due to concerns of programem credibility, and the dificulty of obtaining regulatory

[49] A. Chunekar, S. Mulay & M. Kelkar, 'Understanding the impacts of India's LED bulb programme "UJALA"', 2017.
[50] A. Chunekar, S. Mulay & M. Kelkar, 'Understanding the impacts of India's LED bulb programme "UJALA"', 2017.

approvals at the state regulatory board level and financing such programmes.

(c) To address these issues, the UJALA programme reduced the role of DISCOMs to facilitate their participation more easily. They are not responsible for bidding processes (which is handled by EESL), distribution of the EE measure (ie. LED bulbs), data collection or providing warranties, and instead play a more limited role in bililng, marketing and recovery. Standard agreement templates were also used to expedite the approvals process at state level.

<u>Procurement in the UJALA programme</u>

4.3.7 The procurement of the EE measure through the UJALA programme was done through bulk procurement, over successive rounds of competitive bidding, through the issue of e-tenders once an agreement was signed between the DISCOMs and the EESL, after which manufacturers were to submit technical and price bids.

4.3.8 Where technical bid requirements were met by tenderers, the process proceeded to pricing. In each round, "*multiple bidders were selected and all of them were asked to match the price of the lowest bidder. The volume of the bid was then allocated to all the manufacturers who agreed to match the lowest price in the bid*".

4.3.9 The EESL developed qualifying criteria to ensure that tenderers had the required capacity and expertise and promoted local participation. Bidding requirements more specifically are as below:-

(a) Suppliers are selected through 'online reverse auctions'. Tenderers are required to submit a techno-commercial proposal (which sets out qualifications and related matters) and price bid. Meeting the techno-commercial requirements are needed in order for price bids to be considered. Preference is given to locally manufactured LED bulbs, in line with applicable legislation and policy.

(b) The tenderer with lowest prices and which ensured that their bids were for 30% of the total quantity of LED bulbs was assured of a contract for at least 30% of the total quantity of the LED bulbs. Similarly, the tenderer with the second lowest price gains 25% of the total quantity – such process which continued until the fifth lowest price offered (at 10% of the total quantity).

(c) Tenderers must submit an 'interchangeability certificate' which confirms that if "*due to a change in technology, the supplied bulb(s) is not available during the warranty period, the improved bulb can be provided as a replacement*."

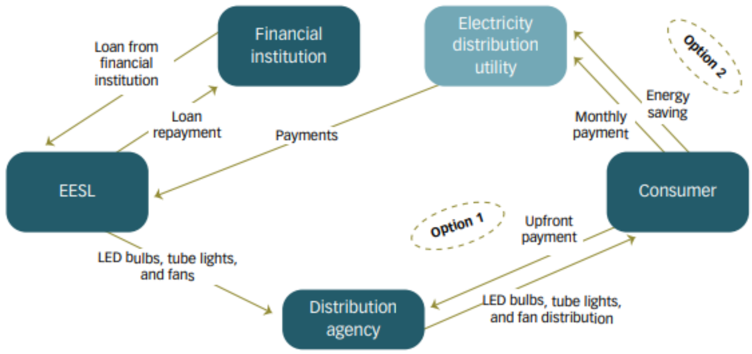
(d) Further specific requirements are implemented to ensure that only qualifying suppliers and manufacturers are selected.

(e) It was found that marketing techniques were also important in the sense of accountability and transparency to the public by ensuring that the gains and losses of the UJALA programme were communicated.

<u>UJALA programme monitoring and valuation</u>

4.3.10 Distribution information and statistics in the form of well-kept databases assists in the monitoring and verification process and is used in evaluations of the programme. In order to ensure the effectiveness of a programme, it was necessary to monitor and evaluate the performance of the EE measure and savings achieved. The EESL made use of an internal audit/evaluation to assess effectiveness and validity of the number of LED bulbs sold. Particularly, the quality of the LED bulbs and estimation of savings.

4.3.11 UJALA's operating model has been illustrated as follows:-



Source: A. Sarkar & S. Moin; 'Transforming Energy Efficiency Markets in Developing Countries: The Emerging Possibilities of Super ESCOs', WBG, 2018. [Adapted from Bhatt, 2017]

Funding of EE programmes in India

4.3.12 With regards to financing, donor funds from, for example, municipal infrastructure funds are generally utilised due to a reluctance from financial institutions.[51]

4.3.13 In terms of direct figures, the 2021 updates states:-

> "*Energy Efficiency Services Ltd has distributed over 360 million LED bulbs to domestic consumers and installed over 12 million LED street lights in Indian municipalities in the last five years. The Building Energy Efficiency Programme was launched in 2017 to promote efficient retrofits of commercial buildings in industry, government and other institutions, including large public buildings like railway stations. The programme employs demand aggregation of efficient equipment purchasing to negotiate lower prices for its projects, lowering costs for the public budget. By September 2021 the programme had completed projects in almost 7 000 buildings, with another 4 000 under way. Completed projects are saving 224 GWh in energy per year and emissions of 184 kt CO2-eq. Investment volumes were USD 270 million between 2017 and March 2020*".

4.3.14 The Indian Bureau of Energy Efficiency ("**BEE**") has established a 'Partial Risk Guarantee Fund for EE' ("**PRGFEE**") in order to encourage lending for EE projects from financial institutions through ESCO business models (ie. shared-savings, guaranteed savings, deemed savings).[52] It has been proposed that through these models, the key benefit for institutions and businesses is that

[51] J. Singh et al, 'Public Procurement of Energy Efficiency Services" Lessons from International Experience', The World Bank.
[52] V. Kanwal, 'Financing needs of the sector to meet energy efficiency targets', 2018 (available at: http://knowledgeplatform.in/views-on-financing-models-for-energy-efficiency-in-india/).

the high up-front initial investment costs for EE interventions can be avoided. However despite this, large industries have not yet shown significant interest in implementing performance contracting or ESCO business models.[53]

5. SUMMARY OF FINDINGS AND RECOMMENDATIONS

5.1 Drawing on both the local programme examples and international comparators discussed in paragraphs **Error! Reference source not found.** and **Error! Reference source not found.** above respectively, we are able to draw a number of conclusions which can assist the structuring of the EEPBIP.

5.2 One of the most apparent trends is that both the local South African programmes and international programmes did not typically make use of “pure” guaranteed savings contracts or shared savings contracts. Instead they tend to have features or both or be fully hybrid contacts whereby:-

5.2.1 shared savings contracts will feature not only a savings sharing mechanism, but there is a minimum savings guarantee, which must be secured in the form of a bank guarantee provided by the ESCO covering around 5-10% of the contract value, which can be called upon by the institution if the minimum guaranteed savings are not achieved; or

5.2.2 contracts are hybridised by simultaneously permitting EE interventions to be funded by the ESCO with a savings sharing mechanism, whilst also allowing for the institution to make call orders for specific interventions through either direct funding by the institution (and then guaranteed by the ESCO) or again through a savings share mechanism with ESCO funding.

5.3 We have been advised that in the context of the EEPBIP, it is expected that the capital value of EE interventions is likely to range between R 30 million and R50 million and relate to a portfolio of buildings and other institutional infrastructure. This is expected to be funded off the government’s balance sheet and by ESCOs raising competitively priced debt in the lending community. Against this backdrop, it would not be unreasonable to require ESCOs to furnish with their bids a performance guarantee, guaranteeing their performance under an energy efficiency contract. A savings security guarantee is generally required under a guaranteed saving contract, and therefore unnecessary if the EEPBIP procurement are to be structured as shared savings contracts in order to leverage private financing of the EE measures.   .

5.4 Another approach which has worked well internationally where some of the capital cost can be funded through the public purse (notably EEDSM grant funding) is the hybrid contracting model. The EnPC can, therefore, be structured as primarily a shared savings contract, using either pre-identified interventions/technologies or interventions identified through an audit by the ESCO, and funded by the ESCO. If during the life of the contract the institution receives public funding to finance other/ further EE interventions the contract can be tailored to cater for this and resultant guaranteed savings contracting mechanisms. The benefit of the hybrid (shared savings) contract is that institutions still receive the benefit of not having to put in upfront capital investment or incur ongoing maintenance costs if they do not wish to, but still have some level of control should budget availability (EEDSM grant) after the contract is procured allow specific desired EE interventions.

5.5 A further trend from the local EE procurements reviewed is that these seem more recently to have been based on a shared savings model, which is a departure from the initial contracts such as the CCT procurement which was modelled on a guaranteed savings contract. This accords with the international trends identified in our literature

[53] V. Kanwal, ‘Financing needs of the sector to meet energy efficiency targets’, 2018.

review which suggests that guaranteed savings contracts are more appropriate in mature markets where government budgets and capacity are less constrained and the goal of energy efficiency in terms of reduced carbon footprint takes priority, whereas shared savings contracts make more sense in developing markets due to constrained institutional budgets. This is, however, not a universal rule, as can be seen in the German programme reviewed above which is essentially a shared savings contract backed by a performance guarantee.

5.6 In terms of the services rendered by ESCOs, the reviewed programmes tend to be for the full suite of EE services (and sometimes water-use reduction too), including the conducting of energy audits, identifying and designing interventions, and providing installation and ongoing maintenance. However, in some instances such as the Indian UJALA programme, the functions are spread across different stakeholders (thus, equipment supply is separated from carrying out energy audits and installing EE interventions).

5.7 In terms of financing the use of state-backed funding or partial credit guarantees are common internationally, but do not appear in the domestic programmes which we have reviewed. It is expected that the IDC-managed partial credit guarantee will provide lenders to ESCOs with a better basis to extend credit, even if at the PCG is restricted to loans procured by ESCOs from the IDC.

5.8 The final trend to note which is related more to procurement structure than contractual structure is that both domestic and international programmes have usually favoured open tender processes over the creation of shortlists or prequalified lists of ESCO. The Indian UJALA programme is structured quite differently and features the establishment of the EESL "super ESCO", which takes over some of the functions that would otherwise be procured from private sector ESCOs. In our view, the establishment of an intermediary entity such as EESL would unnecessarily delay the implementation of the EEPBIP, and we would recommend that the various EE services can comfortably be procured from the ESCO market. For more detail on the use of shortlists, prequalification and panels, please see our report on Task 1C.

Pinsent Masons Africa LLP

20 April 2022

APPENDIX 1 CITY OF CAPE TOWN

CITY OF CAPE TOWN

GIZ EEPBIP

REVIEW TEMPLATE

ENERGY EFFICIENCY PERFORMANCE CONTRACTING PROGRAMME

- The responses below are currently non-specific due to a lack of available information.

A) CITY OF CAPE TOWN ENERGY EFFICIENCY / PERFORMANCE BASED CONTRACTING PROGRAMME *[Note: The responses below are from a review of only one tender document (in draft form) as provided to PM]*		
1	Which entity is / was implementing or managing the energy efficiency procurement programme?	City of Cape Town ('City/CCT'). All of the services described would be performed in close co-operation with the Director (Environmental Resource Management) or his duly authorised representative.
2	What is the overall scope of the procurement, that is, what municipal facilities did the procurement seek to introduce EE measure into?	The City had included the retrofit of Council facilities as a project in the Energy and Climate Action Plan, to assist the City in achieving its declared target of reducing energy consumption in Council operations. The tender was preceded by previous projects where a number of Council buildings and service complexes had been retrofitted with energy efficient technologies (results which were positive). The objective of this project was to investigate (perform audits of) the energy consumption patterns in four building complexes with a view to achieving energy savings in the identified buildings both through technical interventions and through addressing the behaviour patterns and habits of the building residents. Arising from the audits, the successful tenderer had to: propose and specify a suite of individually costed lighting interventions for each of the building/s contained in these centres, and identify and provide individually costed other energy efficiency interventions, where these are possible and viable, which could be pursued by the City as funding is made

		available. The successful tenderer must then also, upon formal instruction from the City agreeing scope and cost of work to be undertaken, execute the approved interventions.
3	Did the procurement programme specify the specific EE technology to be applied?	The tender states that LED lighting would be the only acceptable technology for replacing the existing lighting. Only SABS approved LEDs would be accepted.
4	What were the energy savings targets of the energy performance contracts? Was a specified energy reduction or expectation part of the procurement documentation?	The tender document states "Contract Period: From Date of Commencement Until Performance Guarantee Has Been Fulfilled". No value specified.
5	Was the procurement targeted at a pre-selected panel of ESCOs or did they still need to pre-qualify to be eligible for selection?	This Tender invited qualified, experienced and registered Energy Services Companies (ESCos) to submit Tenders for consideration by the City. The tenderers had to provide documentation of company experience in energy performance contracting as well as evidence of registration with Eskom as an ESCO plus a track record of projects which proved the company has ESCO experience.
6	In addition, was a one-stage or two stage bidding process utilised, and was an RFI issued? (Noting that here one-stage refers to a single bid submission open to all potential bidders with a full bid being required; whereas a two-stage bidding process entails a first round which is used to determine, broadly, the technical and financial capabilities of the potential bidders, from which a shortlist is created, with only shortlisted bidders submitting a detailed technical solution for evaluation in the second stage)	Appears to be single stage as there is no separate prequalification/RFQ process.
7	What funding mechanism did the institution use? (i.e. was the programme self-funded / funded from the fiscus (e.g. through the EEDSM grant))	[Further information required]
8	Did third parties (including government, private sector advisors, local/international donors, development finance institutions, foreign direct aid / official development assistance agencies or NGOs) support the institution in the	[Further information required]

	procurement process or was this facilitated by internal procurement teams?		
9	Specify the evaluation criteria set out in the procurement documentation and applied by the institution to select (Energy Service Company) ESCOs		Certain compliance requirements are set which include: submitted on the official Form of Offer; non-erasable handwritten/printed ink or toner; signed Form of Offer with an original signature; and compliance with a two-envelope system. After this stage, non-responsive tenders were declared non-responsive and eliminated from further evaluation if the tenderer failed to meet certain requirements as specified in 6.3.1. A 90/10 price and preference points system was used.
10	Did the procurement culminate in the award of the tender? If so, how many awards were made to ESCOs (evidenced through the number of contracts signed?		[Further information required]
11	Did the procurement documentation contain a standard for Energy Performance Contract?		This tender required full energy efficiency interventions to be proposed and implemented at the selected buildings with a performance guarantee of the savings. It is stated that the special conditions of contract ('SCC)' supplemented and had to be read with the corresponding provisions of the general conditions of contract ('GCC') issued by the National Treasury. Whenever there is a conflict between the SCC and the GCC, the provisions of the SCC must prevail.
12	Key terms of the Energy Performance Contract	List the energy efficiency measures (ie technology) under the contract	• The SCC are provided in the draft tender document. • It was required that the technology proposed for retrofitting in the course of the interventions be proven technology suitable for use in the identified duty and location and having a satisfactory efficiency and operational record. Consideration must be given in each case to the impact of the proposed intervention (applying the principle of Integrated Environmental Management) and to key operational requirements. • LED lighting is the most efficient lighting on the market and would be the only acceptable technology for replacing the existing lighting. Only SABS approved LEDs would be accepted.

		What was the duration of the contract – split between works. Installation of measures and operations and maintenance?	Work was to start immediately upon the award and signing of the final tender documents, or as alternatively agreed between the City and the Contractor. The successful tenderer would confirm, within one week from notification, the proposed schedule of activities for the contract duration showing: • Major activities and milestones (Commencements of Audits, presentation of Detailed Audit Report to City, Submission of Intervention Proposals (Implementation Plans), Completion of Work) • Calendar time in months. • Contractor's programme of work, indicating main and sub tasks.
		Was the ESCO or the institution required to fund the EE measures?	The City would make a purchase order and will then pay the ESCO for its invoices on a monthly cycle. Therefore, the City would be funding the energy efficiency measures.
		Describe the payment mechanism under the contract i.e. ○ Was the ESCO responsible for collections? ○ Was the ESCO responsible for measuring and calculating savings? ○ Were savings shared (and if so were they split equally) or did the ECSO guarantee savings? ○ If the latter, what contractual mechanism	The GCC states that the method and conditions of payment to be made to the supplier under this contract shall be specified in the SCC. Further:- • The proposed cost of the technology to be implemented is to be market based and the City will not accept any proposed implementation plans where costs are deemed to be unreasonably inflated. • The supplier shall furnish the purchaser with an invoice accompanied by a copy of the delivery note and upon fulfilment of any other obligations stipulated in the contract. • Payments shall be made promptly by the purchaser, but in no case later than 30 (thirty) days after submission of an invoice or claim by the supplier. • Payment will be made in Rand unless otherwise stipulated in the SCC. The SCC states only that:-

		was in place where guaranteed savings where not met?	• A monthly payment cycle will be the norm. All invoices received for goods and services which are dated on or before the 20th of a particular month will typically be paid between the 23rd and 26th of the following month. The actual payment run dates will be dependent on the number of days in the month and the influence of public holidays. • The City will issue official purchase orders for services required under the Contract. No work should be undertaken without an official purchase order that is addressed to the successful tenderer. The relevant purchase order number must be reflected on every invoice. No payments will be processed without an official purchase order. [Further information is required].
		Describe the performance guarantees required from the ESCO under the contract (if any)	Paragraph 7.3.1 of the SCC states:- 7.3.1.1 The successful tenderer shall be required to furnish the CCT with a Performance Security guarantee on the terms and conditions set out in Schedule 14: Annex 1. 7.3.1.2 The Guarantee/Performance Security must be issued by any one of the Financial Institutions listed in Annexure A (attached to Annex 1). 7.3.1.3 The Guarantee/Performance Security shall be submitted within 14 (fourteen) days of notification of the contract award. 7.3.1.4 The Guarantee Sum shall be 5% of the total tendered sum shall be lodged with the City as provided for under the conditions of Clause 7 of the GCC before implementation will be permitted to commence. 7.3.1.5 The performance security is for the installation phase of the contract and will be valid from the date of commencement up until 30th June 2018. Paragraph 7.3.2 refers to a savings guarantee security and states that the contractor shall be required to furnish the CCT with a Savings Guarantee Security to guarantee the savings resulting from the interventions in the four Building Complexes (where these were approved and implemented) from the completion date of installations up until the end of the payback period, i.e. when the projected savings have paid for the investment incurred. The

			implementation Plan provided by the contractor will clearly have stipulated the annual savings to be achieved from the proposed interventions and these savings are to be guaranteed by the contractor in the form a bank guarantee which needs to be submitted upon completion of installation up until the end of the payback period for the full building retrofit conducted. Performance security is also discussed in section 7 of the GCC.
		Did the contract require the institution to provide a payment guarantee?	There does not appear to be a payment guarantee though more information is required.
		What monitoring mechanism and verification mechanisms were in place, who was responsible for calculating baselines and performance/savings, and was there any independent verification?	As per the GCC:- • Clause 8 refers to inspections, tests and analyses and clause 8.3 states that states that if there are no inspection requirements indicated in the bidding documents and no mention of such is made in the contract, but during the contract period it is decided that inspections shall be carried out, the purchaser shall itself make the necessary arrangements, including payment arrangements with the testing authority concerned. • If the inspections, tests and analyses show the supplies to be in accordance with the contract requirements, the cost of the inspections, tests and analyses shall be defrayed by the purchaser. • The procurement documentation also states that each building which has been selected for the retrofit has a smart meter which has been installed by the City. This meter data will be shared with the awarded contractor as the metering data will be used during the monthly monitoring of the savings and to verify that the performance guarantee savings has been met.
		Did the institution have a right to inspect reports, etc?	As per the SCC and GCC:- • The supplier shall complete, sign and submit with each invoice; a B-BBEE Sub-contract Expenditure Report and a Joint Venture Expenditure Report (clause 7.15).

			• Clause 5 of the GCC states that the supplier shall permit the purchaser to inspect the supplier's records relating to the performance of the supplier and to have them audited by auditors appointed by the purchaser, if so required by the purchaser. Clause 8 states that if it is a bid condition that supplies to be produced or services to be rendered should at any stage during production or execution or on completion be subject to inspection, the premises of the bidder or contractor shall be open, at all reasonable hours, for inspection by a representative of the Department or an organisation acting on behalf of the Department. • Clause 5 of the GCC states that the supplier shall permit the purchaser to inspect the supplier's records relating to the performance of the supplier and to have them audited by auditors appointed by the purchaser, if so required by the purchaser.
		Mechanisms for addressing poor performance	As per the SCC:- • If the contractor fails to provide a deliverable at the promised date whether that be a monthly report or the completion of a section of the contract, penalties of R1000.00 per day shall be incurred for every working day over the exceeded deadline.
		List the termination/ default events and consequences of termination	As per the GCC:- • Clause 22 states that subject to GCC clause 25, if the supplier fails to deliver any or all of the goods or to perform the services within the period(s) specified in the contract, the purchaser shall, without prejudice to its other remedies under the contract, deduct from the contract price, as a penalty, a sum calculated on the delivered price of the delayed goods or unperformed services, using the current prime interest rate, calculated for each day of the delay until actual delivery or performance. The purchaser may also consider termination of the contract pursuant to GCC clause 23. • Clause 23 (termination for default states that the purchaser, without prejudice to any other remedy for breach of contract, by written notice of default sent to the supplier, may terminate this contract in whole or in part:-

			(a) if the supplier fails to deliver any or all of the goods within the period(s) specified in the contract, or within any extension thereof granted by the purchaser pursuant to GCC clause 21.2; (b) if the supplier fails to perform any other obligation(s) under the contract; or (c) if the supplier, in the judgment of the purchaser, has engaged in corrupt or fraudulent practices in competing for or in executing the contract. • In the event the purchaser terminates the contract in whole or in part, the purchaser may procure goods, works or services similar to those undelivered, and the supplier shall be liable to the purchaser for any excess costs for such similar goods, works or services. The supplier shall continue performance of the contract to the extent not terminated. • Where the purchaser terminates the contract in whole or in part, the purchaser may decide to impose a restriction penalty on the supplier by prohibiting such supplier from doing business with the public sector for a period not exceeding 10 years. • If a purchaser intends imposing a restriction on a supplier or any person associated with the supplier, the supplier will be allowed a time period of not more than 14 days to provide reasons why the restriction should not be imposed. • Clause 26 states that the purchaser may at any time terminate the contract by giving written notice to the supplier if the supplier becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the supplier, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the purchaser
		Local content, BBBEE and economic development obligations	[Further information required] Though it is noted that local content is defined in the GCC.
13	Are the contracts still active or have they been terminated?		[Further information required]

14	To be completed by entity responsible for programme	Would you conduct a similar programme again in future?	[Further information required]
		If no, why not?	[Further information required]
		If yes, would you structure any aspects of the programme differently or make any other changes?	[Further information required]

APPENDIX 2 WESTERN CAPE

GIZ EEPBIP

REVIEW TEMPLATE

ENERGY EFFICIENCY PERFORMANCE CONTRACTING PROGRAMME

- The responses below are currently non-specific due to a lack of available information.

A) WESTERN CAPE ENERGY EFFICIENCY / PERFORMANCE BASED CONTRACTING PROGRAMME *[Note: The responses below are from a review of only one tender document as provided to PM]*		
1	Which entity is / was implementing or managing the energy efficiency procurement programme?	Western Cape: Department of Transport and Public Works.
2	What is the overall scope of the procurement, that is, what municipal facilities did the procurement seek to introduce EE measure into?	The scope was to procure the services of a suitable service provider to undertake projects of energy and water savings in a number of provincial facilities ('buildings') to reduce energy and water consumption in these buildings. The buildings are mainly in the domains of the Department of Transport and Public Works ('DTPW') and the Western Cape Department of Health ('DOH'). Education facilities of the Western Cape Education Department ('WCED') were not included at this stage of the RFP but could be added during the course of the term contract.
3	Did the procurement programme specify the specific EE technology to be applied?	As per the procurement document, the interventions contemplated were to address "lighting; ventilation and air conditioning; water heating; power factor correction; water usage in toilets or ablution facilities, etc".
4	What were the energy savings targets of the energy performance contracts? Was a specified energy reduction or expectation part of the procurement documentation?	As per the procurement document: to reduce the average electricity consumption by the Western Cape Government in the buildings by at least 10% over the duration of the interventions

5	Was the procurement targeted at a pre-selected panel of ESCOs or did they still need to pre-qualify to be eligible for selection?	Open Tender Process
6	In addition, was a one-stage or two stage bidding process utilised, and was an RFI issued? (Noting that here one-stage refers to a single bid submission open to all potential bidders with a full bid being required; whereas a two-stage bidding process entails a first round which is used to determine, broadly, the technical and financial capabilities of the potential bidders, from which a shortlist is created, with only shortlisted bidders submitting a detailed technical solution for evaluation in the second stage)	There appears to be no mention of an RFQ or any prequalification requirements. One stage bidding process was utilised. RFI was issued.
7	What funding mechanism did the institution use? (i.e. was the programme self-funded / funded from the fiscus (e.g. through the EEDSM grant))	Self Funded
8	Did third parties (either including government, private sector advisors, local/international donors, development finance institutions, foreign direct aid / official development assistance agencies or NGOs) support the institution in the procurement process or was this facilitated by internal procurement teams?	Internal Procurement Teams
9	Specify the evaluation criteria set out in the procurement documentation and applied by the institution to select (Energy Service Company) ESCOs	As per the procurement document, the procedure for the evaluation of responsive tenders was the two Stage method (Functionality, Price and Preference):- • Stage 1: the assessment of functionality will be done in terms of information made available by the tenderer according to the criteria in the Functionality Table provided, where a total of 100 points are awarded, broken down as per the items listed in the table. The minimum qualifying threshold will be 70% of the 100 points awarded for functionality. Functionality criteria include:- - Relevant Project Experience and Capability: Energy Efficiency contracting experience, water Conservation and Water Demand management

			(WCWDM) experience, third party references (Energy Efficiency contracts/WCWDM contracts); and - Resources: Company Organogram, Company Infrastructure, CV's of key personnel, Funding/financing. • Stage 2: only the tenders qualifying with a score of 70% and above will be evaluated in terms of points scored for financial offer and preferences in the applicable ratio as stated in the Conditions of Tender (80:20).
10	Did the procurement culminate in the award of the tender? If so, how many awards were made to ESCOs (evidenced through the number of contracts signed?		Yes, one.
11	Did the procurement documentation contain a standard for Energy Performance Contract?		The conditions of contract are the NEC3 Term Service Short Contract (September 2008) ('NEC3: TSSC3').
12	Key terms of the Energy Performance Contract	List the energy efficiency measures (ie technology) under the contract	Perform detailed energy and/or water audits on the facilities as specified in the Task Order, and arising from those audits to propose and specify a suite of individually costed energy and/or water efficiency interventions for each of the building/s contained in these facilities for inter alia (asapplicable): • Lighting; • Ventilation and air conditioning; • Water heating; • Power factor correction; • Water usage in toilets or ablution facilities, etc • Solar PV Installations

		What was the duration of the contract – split between works. Installation of measures and operations and maintenance?	The Contract Data states that the service period is 36 months. This appears to cover both installation of the relevant interventions and maintenance
		Was the ESCO or the institution required to fund the EE measures?	As this is a shared savings contract, it is anticipated that the contractor will pay (see 1.7.15 of the Service Information – the employer's obligations are to pay the verified savings to the contractor – the employer does not pay for the installation of the equipment. However, considering the use of task orders, this appears to be a hybrid contract.
		Describe the payment mechanism under the contract i.e. ○ Was the ESCO responsible for collections? ○ Was the ESCO responsible for measuring and calculating savings? ○ Were savings shared (and if so were they split equally) or did the ECSO guarantee savings? ○ If the latter, what contractual mechanism was in place where guaranteed savings where not met?	The basis for remuneration for the energy efficiency service will primarily be the shared savings model as priced in the pricing schedule of contract. The basis for remuneration for the water efficiency service is the Performance Bonus as described in item 1.8 of the Service Information attached to the Contract. In addition, the option may be exercised to issue Task Orders whereby the Employer may decide to pay, partially or wholly, for certain capital expenditure related to interventions (e.g. PV installations) and incorporating such expenditure into the shared savings or Performance Bonus calculations for that Task Order. Alternatively, the Employer may also issue Task Orders instructing the provision of services which are not remunerated according to shared savings but instead constitute a service fee paid in accordance with the tendered rates in the pricing schedule.

		Describe the performance guarantees required from the ESCO under the contract (if any)	As per the Service Information: the contractor is expected to provide performance guarantees in line with guaranteed savings objectives although it is not specified what the value or form of these guarantees should be.
		Did the contract require the institution to provide a payment guarantee?	Payment guarantee is not required, payment is paid out from Savings achieved (see shared savings model in contract).
		What monitoring and verification mechanisms were in place, who was responsible for calculating baselines and performance/savings, and was there any independent verification?	As per the Service Information:- • For all facilities, sites and buildings upon which possible interventions can be implemented, a consumption baseline will need to be established in terms of which cost savings will be calculated. The method by which the baselines will be calculated is clearly set out in terms of the International Performance Measurement and Verification Protocol (IPMVP) Core Concepts 2014. • This baseline consumption shall be applicable for the duration of the contract period. • Baselines are to be agreed upon and signed off by the Employer or appointed Employer representative prior to the installation of energy saving equipment and baseline adjustments made during the contract period are to be highlighted to the Employer each month.
		Did the institution have a right to inspect reports, etc?	As per the Service Information: the contractor must develop monthly reports on achieved savings with opportunities and challenges thereto. Each project is expected to produce an overall reduction in Active Energy (kWh) use. In order to assess the performance of the project, the Contractor is required to provide a monthly progress report to the Employer
		Mechanisms for addressing poor performance	As per the Service Information: In the event of professional default or negligence, the Employer shall have the right to claim compensation or damages
		List the termination/ default events and consequences of termination	As per the Service Information:- • The Contractor shall be in default if he:-

			a) Fails to commence with the energy management systems as submitted in a Task Order quotation and accepted by the Employer; b) Fails to proceed with the energy management systems with due diligence or to complete the energy management systems in accordance with stated requirements; c) Stops, abandons or suspends the energy management systems before completion; or d) Refuses or neglects to comply strictly with any of the conditions of this contract or the Task Order agreement or any legitimate instructions given in terms of the contract; e) Fails to achieve the estimated percentage savings target as submitted in the Task Order agreement over the duration of the Task term.
		Local content, BBBEE and economic development obligations	• Provide dedicated staff for purposes of offering an efficient service to the Department; • Promote EPWP through skills transfer and creation of job opportunities to youth and women; • Provide training and workshops on set bases to staff members as part of skills development and energy efficiency advocacy; • The sector industry growth and empowerment through Broad-Based Black Economic Empowerment (BBBEE)
13	Are the contracts still active or have they been terminated?		Active
14	To be completed by entity	Would you conduct a similar programme again in future?	Yes & No however. Projects runs over 3 year MTEF period therefore require Section 66 approval.

	responsible for programme	If no, why not?	To obtain Section 66 after MTEF period causes delays within the Project
		If yes, would you structure any aspects of the programme differently or make any other changes?	Team to get Treasury's buy-in to the programme from initiation phase (to avoid delay in Section 66 approvals)

APPENDIX 3 EASTERN CAPE

GIZ EEPBIP

REVIEW TEMPLATE

ENERGY EFFICIENCY PERFORMANCE CONTRACTING PROGRAMME

- The responses below are currently non-specific due to a lack of available information.

B) EASTERN CAPE SHARED SAVINGS CONTRACTS PROGRAMME *[Note: The responses below are from a review of only the RFP as provided to PM]*		
1	Which entity is / was implementing or managing the energy efficiency procurement programme?	Eastern Cape Provincial Government: Department of Public Works.

<table>
<tr><td>2</td><td>What is the overall scope of the procurement, that is, what municipal facilities did the procurement seek to introduce EE measure into?</td><td>Implementation of Integrated Shared Savings Contracts (ISSC) Programme (Related to Energy, Water, Rates, Taxes And Waste Management) on facilities owned by the Eastern Cape Provincial Government: Department of Public Works.

The Department engaged the market to request proposals for assistance in implementing an integrated model for the reduction of Energy, Water, Rates, Taxes and Waste consumption in state-owned buildings over a period of years, through shared contracting with independently verifiable data on achieved savings.

These interventions shall be rolled out in six regions and two metropolitan municipalities listed (hereafter referred to as USCo's) as tabled below:

<table>
<tr><th>USCO No</th><th>Region/ District Municipality</th><th>Estimated Number of Properties</th></tr>
<tr><td>1</td><td>Alfred Nzo</td><td>10</td></tr>
<tr><td>2</td><td>Amatole</td><td>14</td></tr>
<tr><td>3</td><td>Chris Hani</td><td>32</td></tr>
<tr><td>4</td><td>Joe Gqabi</td><td>12</td></tr>
<tr><td>5</td><td>OR Tambo</td><td>18</td></tr>
<tr><td>6</td><td>Sarah Baartman</td><td>33</td></tr>
<tr><td>7</td><td>Nelson Mandela Metro</td><td>12</td></tr>
<tr><td>8</td><td>Buffalo City Metro</td><td>30</td></tr>
</table></td></tr>
<tr><td>3</td><td>Did the procurement programme specify the specific EE technology to be applied?</td><td>New, advanced and innovative technology was acceptable, provided that it offers clear demonstrable benefits for the Department's requirements. Savings should, amongst others, cover lighting, operating equipment, and Heating Ventilation and Cooling (HVAC) systems, water, etc.</td></tr>
<tr><td>4</td><td>What were the energy savings targets of the energy performance contracts? Was a specified energy reduction or expectation part of the procurement documentation?</td><td>Overall outcomes and deliverables included to reduce the average electricity and water consumption at DPW by 60% over the duration of the contract and 20-25% reduction related to rates and taxes cost over the contract period.</td></tr>
<tr><td>5</td><td>Was the procurement targeted at a pre-selected panel of ESCOs or did they still need to pre-qualify to be eligible for selection?</td><td>DPW sought to engage companies with technologies and a proven track record in guaranteed Energy, Water, Rates, Taxes and Waste performance savings, improving efficiencies of equipment with regards to power and water consumption, and optimisation. Services of suitable and experienced Utilities Services Companies (USCOs) were required to undertake Integrated Shared Savings / Energy Performance Contracting (EPC) Contracts</td></tr>
</table>

		and Water Performance Contracts for DPW, at the risk of the USCO. Section 4 of the RFP sets out the required expertise which are key to selection of USCOs.
6	In addition, was a one-stage or two stage bidding process utilised, and was an RFI issued? (Noting that here one-stage refers to a single bid submission open to all potential bidders with a full bid being required; whereas a two-stage bidding process entails a first round which is used to determine, broadly, the technical and financial capabilities of the potential bidders, from which a shortlist is created, with only shortlisted bidders submitting a detailed technical solution for evaluation in the second stage)	Appears to be no prequalification criteria or RFQ.
7	What funding mechanism did the institution use? (i.e. was the programme self-funded / funded from the fiscus (e.g. through the EEDSM grant))	The pricing structure as from the RFP is that the project is self-funded, meaning that the DPW and user departments will not participate in upfront or ongoing Opex investments.
8	Did third parties (either including government, private sector advisors, local/international donors, development finance institutions, foreign direct aid / official development assistance agencies or NGOs) support the institution in the procurement process or was this facilitated by internal procurement teams?	Key stakeholders in the project are listed as:- - Client Departments to which DPW provides accommodation, Facilities Management, and Property Management services; - Local Municipalities for electricity, water, waste and rates/taxes billing purposes; - Department of Energy; - Eskom; - National Treasury; and - Department of Economic Development, Environmental Affairs and Tourism
9	Specify the evaluation criteria set out in the procurement documentation and applied by the institution to select (Energy Service Company) ESCOs	Required expertise in the form of key professionals, minimum qualifications and experience are set out in section 4 of the RFP. The RFP evaluation criteria in section 8 states that the RFP will be evaluated in three phases: (1) Administrative compliance; (2) Bidders passing phase one will be evaluated on functionality. A minimum score of 60% must be scored to

			enable further consideration; and (3) Bidders passing phase one and two will thereafter be evaluated on PPPFA on the 90/10 principle. Functionality criteria include:- • Energy, water, rates and taxes and waste saving measures; • energy, water, rates and taxes and waste saving methodology; and • energy, water, rates and taxes and waste saving project expertise.
10	Did the procurement culminate in the award of the tender? If so, how many awards were made to ESCOs (evidenced through the number of contracts signed?		[Further information required]
11	Did the procurement documentation contain a standard for Energy Performance Contract?		The RFP contains a General Conditions of Contract ('GCC').
12	Key terms of the Energy Performance Contract	List the energy efficiency measures (ie technology) under the contract	Specific deliverables and outcomes are set out in the RFP but contract specific terms are not available.
		What was the duration of the contract – split between works. Installation of measures and operations and maintenance?	7 years as per the RFP but contract specific terms are not available.
		Was the ESCO or the institution required to fund the EE measures?	As per the RFP: USCO's must submit proof of funding to undertake the ISSC projects.
		Describe the payment mechanism under the contract i.e.	As per the RFP GCC: The method and conditions of payment to be made to the provider under this contract shall be specified.

		○ Was the ESCO responsible for collections? ○ Was the ESCO responsible for measuring and calculating savings? ○ Were savings shared (and if so were they split equally) or did the ECSO guarantee savings? ○ If the latter, what contractual mechanism was in place where guaranteed savings where not met?	
		Describe the performance guarantees required from the ESCO under the contract (if any)	As per the RFP: USCO's must submit proof of funding to undertake the ISSC projects. Funding guarantee of a minimum of R40 000 000,00 (Forty million rand) from a reputable financial institute i.e Development Finance Institution, Registered Commercial Bank, or a registered financial institution must be submitted in this RFP. It must be on the registered financial institutions letterhead, stamped and duly authorized by the bank. It must be an original letterhead or certified copy of the original. As per the RFP GCC: Within thirty (30) days of receipt of the notification of contract award, the successful bidder shall furnish to the purchaser the performance security of the amount specified in SCC.
		Did the contract require the institution to provide a payment guarantee?	[Further information required]
		What monitoring and verification mechanisms were in place, who was	[Further information (ie. SCC) required]

		responsible for calculating baselines and performance/savings, and was there any independent verification?	
		Did the institution have a right to inspect reports, etc?	To be included as per the RFP: monthly progress reports and data on achieved electricity and water consumption savings were to be implemented; proposed Energy, Water, Rates, Taxes and Waste Management Plans to support energy and water savings, for consideration by DPW on annual bases; and all reports are expected to have an executive summary and write-up, accompanied by technical detail. Contract specific terms are not available.
		Mechanisms for addressing poor performance	As per the RFP GCC: subject to GCC Clause 25, if the provider fails to deliver any or all of the goods or to perform the services within the period(s) specified in the contract, the purchaser shall, without prejudice to its other remedies under the contract, deduct from the contract price, as a penalty, a sum calculated on the delivered price of the delayed good or unperformed services using the current prime interest rate calculated for each day of the delay until actual delivery or performance. The purchaser may also consider termination of the contract pursuant to GCC Clause 23
		List the termination/ default events and consequences of termination	As per the RFP GCC, there is a section on termination in cases of insolvency as well as default (clause 24) which states:- • The purchaser may terminate the contract in whole or in part:- (a) if the provider fails to deliver any or all of the goods within the period(s) specified in the contract, or within any extension thereof granted by the purchaser pursuant to GCC clause 21.2; (b) if the provider fails to perform any other obligation(s) under the contract; or (c) if the provider, in the judgement of the purchaser, has engaged in corrupt or fraudulent practices in competing for or in executing the contract. • In the event the purchaser terminates the contract in whole or in part, the purchaser may procure, upon such terms and in such manner as it deems appropriate, goods, works or services similar to those undelivered, and the provider shall be liable to

			the purchaser for any excess costs for such similar goods, works or services. However, the provider shall continue performance of the contract to the extent not terminated.
		Local content, BBBEE and economic development obligations	As per the RFP, the allocation of contracts per USCO would be allocated in terms of scoring for PPPFA (BBBEE Preference Points & Price) from highest to the lowest. Contract specific terms are not available.
13	Are the contracts still active or have they been terminated?		[Further information required]
14	To be completed by entity responsible for programme	Would you conduct a similar programme again in future?	[Further information required]
		If no, why not?	[Further information required]
		If yes, would you structure any aspects of the programme differently or make any other changes?	[Further information required]