SUSTAINABLE MUNICIPAL ENERGY BUSINESSES

Presentation to the Urban Energy Network

14 October 2020

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Purpose of meeting

1. To engage the UEN on the challenges that metros face on Muni Procurement of Energy

- Do we have correct understanding of problem statement?

2. To engage the UEN on NT CSP's programme of work in response to the challenges

- Engagement with primary stakeholders
- Garner practical, on the ground input to influence the applicability of the work to ensure 'fit for purpose'
- For alignment, strategic direction and buy-in

Overview

- Context
- Problem statement
  - Discussion and input
- NT CSP's Programme of work in response
  - Discussion and input
- Summary and next steps
  - Is the problem statement correct?
  - Are the proposed barriers / challenges correctly identified?
  - Is there alignment with the proposed response?

CONTEXT AND PROBLEM STATEMENT

Context

- South Africa is entering a new era with respect to electricity demand and supply
- Decentralised supply options much more competitive than the traditional monopoly electricity generation
- Changing landscape has huge implications for municipalities and should be capitalised on to cater for the current unsustainability of municipalities
- The National Development Plan states that '*A reliable electricity supply depends on sufficient generating capacity coupled with a dependable transmission and distribution grid*.'

Problem Statement and Focus

How to identify and address the barriers and challenges for reform to enable resilient, sustainable municipal energy businesses through a reform of the electricity distribution industry and a reform to enable procurement of energy by municipalities

National Development Plan

A reliable electricity supply depends on sufficient generating capacity coupled with a dependable transmission and distribution grid.

EDI

Generation

Improving Electricity Distribution:
NDP Proposal to address problem
*Invest in **human and physical capital** in the 12 largest municipal distributors, which account for 80 percent of the electricity distributed by local government. This is a **high-priority programme** that needs to be driven at national level in collaboration with these municipalities.*

*Balance state ownership of energy enterprises with **effective regulation and market reforms** needed **to stimulate competition** and achieve greater private-sector involvement.*

New business models for sustainability of municipalities

Cities Support Programme's

Climate & Sustainability Component

&

Sustainable Muni Energy Workstreams

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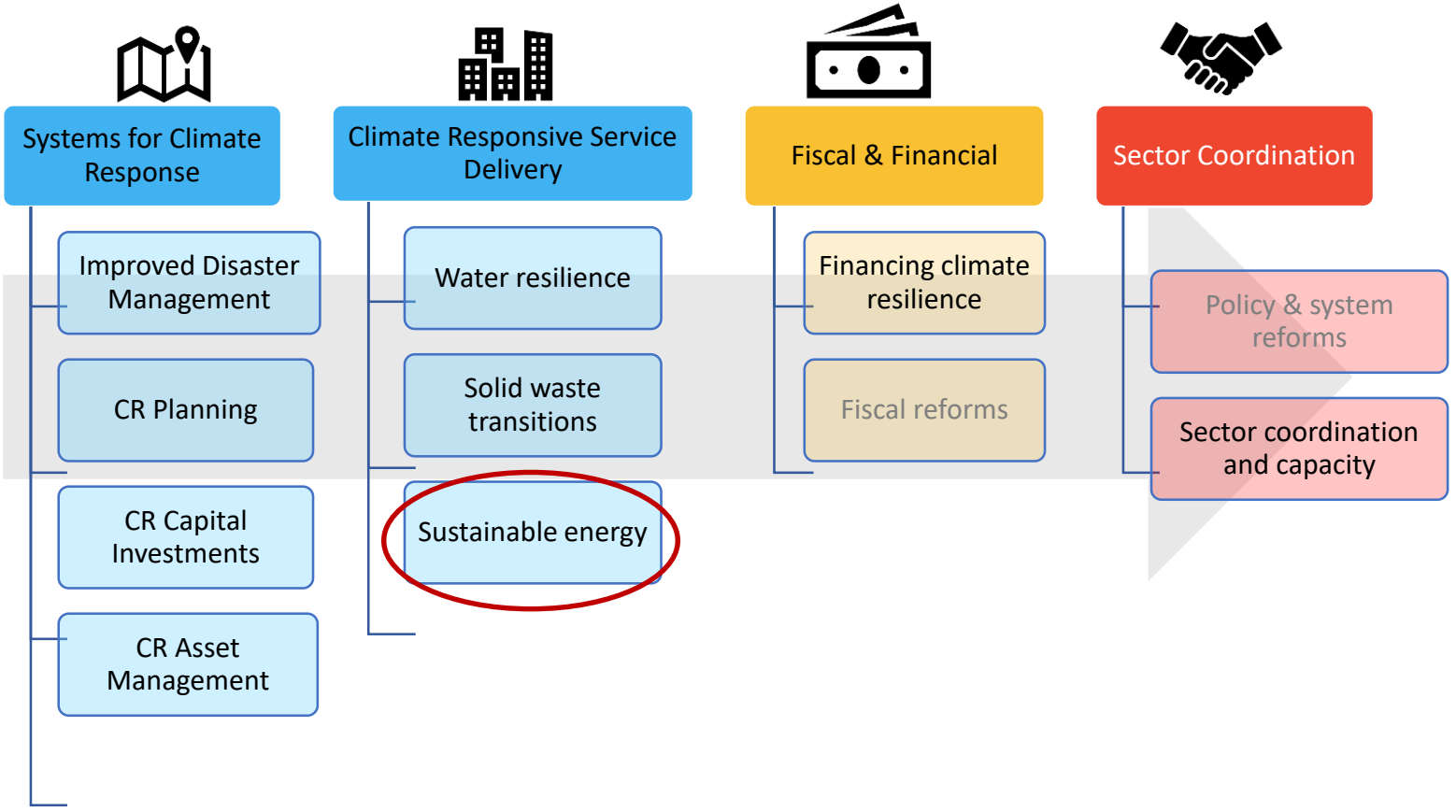
CSP Climate & Sustainability Projects



Project Introduction and Objective

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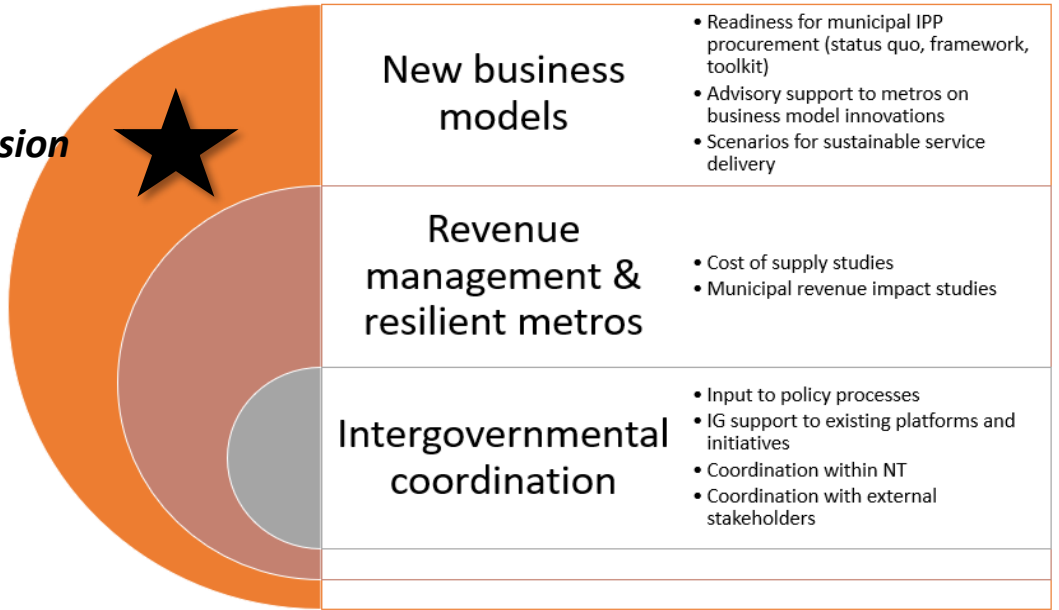
Objective of project

- The Sustainable Municipal Energy Businesses (SMEB) programme is implementing the Cabinet approved NDP proposal to address the problem statement.
- To support the transition to sustainability within the metro energy sector.

Focus of this discussion

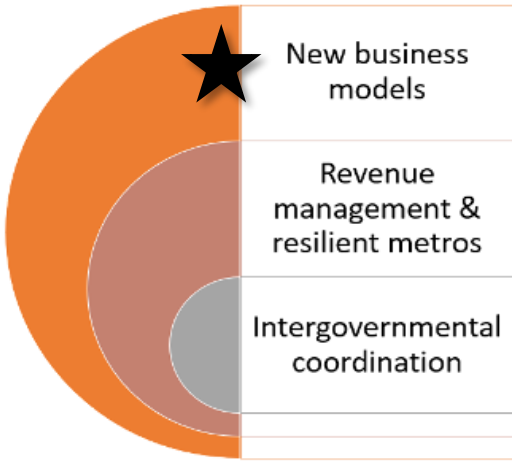
Three workstreams:



OBJECTIVES AND PROPOSED OUTCOMES

New Business Models workstream
outcomes & objectives

- Identify the appropriate procurement processes through which metros can effectively, transparently, sustainably and efficiently procure energy
- Expeditiously alleviate constraints to municipal electricity procurement and creation
- Create an enabling policy and regulatory environment for municipal procurement of energy
- Facilitate private sector participation and unlock investment
- Institutionalisation and capacity building



Stable and sustainable municipal energy businesses

Muni Procurement of Energy

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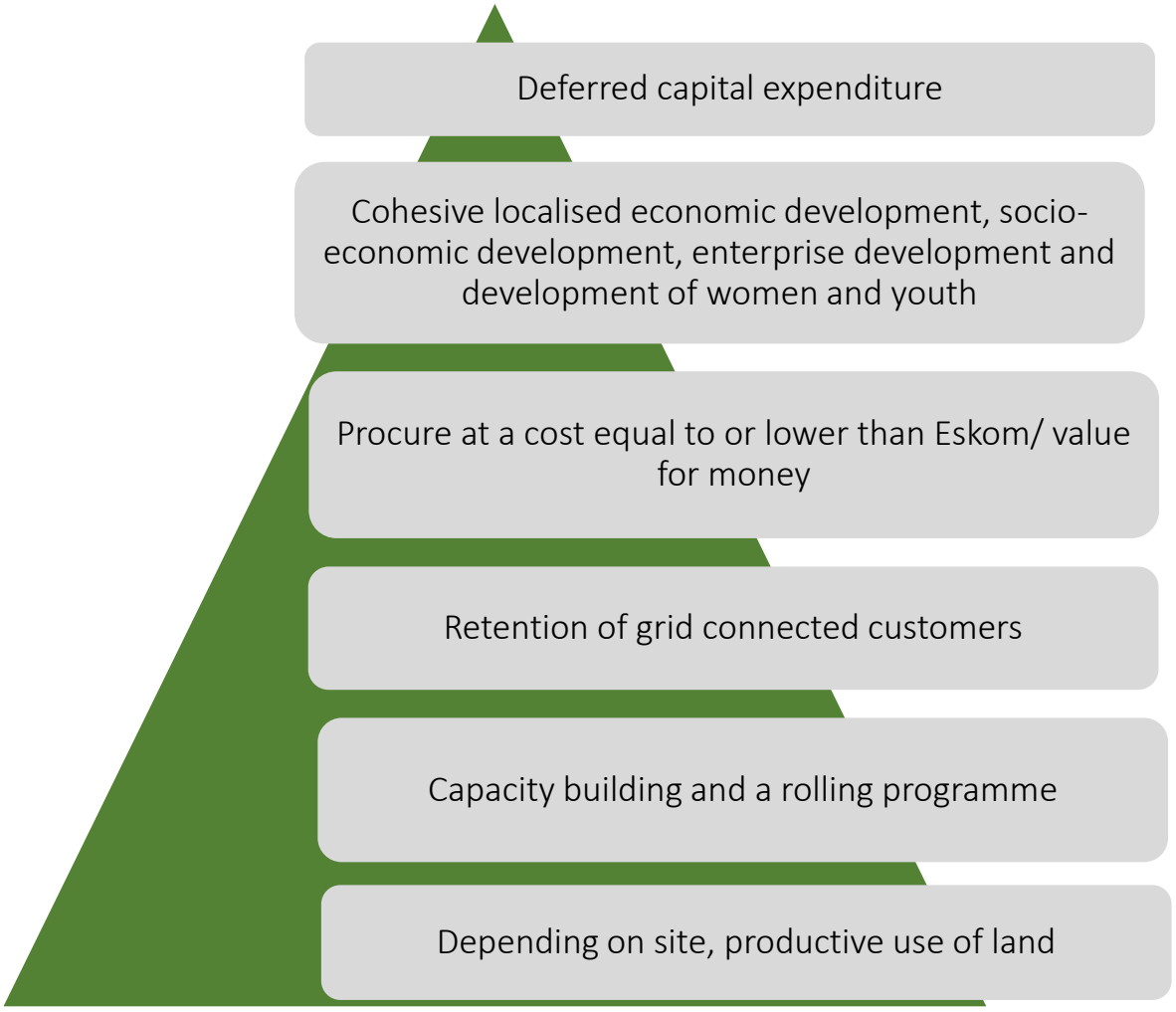
Benefits of muni procurement



CO-BENEFITS:

reduction in carbon emissions, pollution and intensity of natural resource use

POLICY AND REGULATORY FRAMEWORK

Policy and Regulatory Framework

POLICY FRAMEWORK

- **National Development Plan (NDP)**

Identifies long-term plans to meet SA's economic, social and environmental needs. Energy infrastructure is a critical component for economic growth.

The NDP proposes diversity and alternative energy resources and energy supply options, both in terms of power generation and the supply of liquid fuels.

- **1998 White Paper**

Long-term (2050) Integrated Energy Plan being developed -informed by key sectoral Masterplans and Road Maps (Gas, Liquid Fuels, Electricity).

- **Integrated Resource Plan (IRP) for electricity**

The IRP requires a specific generation mix to meet the electricity needs and informs Ministerial Determinations on energy capacity.

Policy signals recognise the changing landscape – SONA; amendments to New Gen Regs.

REGULATORY FRAMEWORK

- Constitution of the Republic of South Africa, 1996;
- The Preferential Procurement Policy Framework Act, 2000 ("**PPPFA**") and the regulations promulgated in terms thereof ("**PPPFA Regulations**");
- The Broad-Based Black Economic Empowerment Act, 2003, as amended ("**BBBEE Act**") and the codes of good practice issued in terms of the BBBEE Act ("**DTI Codes**");
- Electricity Regulation Act, 2006 (Act No. 4 of 2006), as amended ("**ERA**")
- Electricity Regulations on New Generation Capacity ("**NewGen Regs**")
- National Energy Act, 2008 ("**NEA**") (Act No. 34 of 2008) - *requires development of IEP*
- National Energy Regulator Act, 2004 (Act No. 40 of 2004) ("**NERA**") Integrated Energy Planning (IEP) Processes
- Certain guidelines, rules and decisions made by the National Energy Regulator ("**NERSA**") (found at www.nersa.org.za)
- Licences – issued through the National Energy Regulator of South Africa
- New Determinations on the IPP Procurement Programmes

Policy and Regulatory Framework - Munis

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MUNICIPAL PPP PROJECT CYCLE

NATIONAL TREASURY PPP UNIT

Reflecting Municipal Financing Management Act, Act 56 of 2003
Municipal Public Private Partnership Regulations, and the
Municipal Systems Act, Act 32 of 2000

PROJECT PREPARATION PERIOD

Modules 1-3

1 INCEPTION

- Identify project
- Notify government (National Treasury, DPLG) and determine scope of feasibility study and applicable process
- Appoint project officer
- Appoint advisor

Module 4

2 FEASIBILITY STUDY

- Notify/consult stakeholders
- Needs analysis
- Technical options analysis
- Service delivery analysis
- Delivery mechanism summary and interim internal/external recommendation
- Project due diligence
- Value assessment
- Procurement plan
- 60 days prior to council meeting, give public, Treasury, DPLG 30 days to comment

Treasury Views and Recommendations: I

- Council decision whether to procure external option

Module 5

3 PROCUREMENT

- Prepare bid documents including draft PPP agreement as per MFMA Chapter 11

Treasury Views and Recommendations: IIA

- Pre-quality parties
- Issue request for proposal with draft PPP agreement
- Receive bids
- Compare bids with feasibility study and each other
- Select preferred bidder
- Prepare value assessment report

Treasury Views and Recommendations: IIB

- Negotiate with the preferred bidder
- Finalise PPP contract management plan
- 60 days prior to signing of contract, give public, Treasury, DPLG 30 days to comment

Treasury Views and Recommendations: III

- Council passes resolution authorising execution of PPP contract
- Accounting officer signs PPP agreement

PROJECT TERM

Module 6

4 PPP CONTRACT MANAGEMENT

- Accounting officer responsible for PPP contract Management
- Measure outputs, monitor and regulate performance, liaise effectively, and settle disputes

In line with National Treasury's Municipal PPP Manual, Module 4: PPP Feasibility Study, the feasibility study must include the following[22]:

2

COMPONENTS OF THE FEASIBILITY EVALUATION AND PRELIMINARY DESIGN STUDY

Introduction

Submission requirements
- Covering letter from the accounting officer requesting TVR I, where applicable
- Executive summary
- Introduction
- Project background
  Approach and methodology to the feasibility study and the MFMA requisites, and the obtaining of Treasury Views and Recommendations - 1.

Section 1: Submission requirements: **Needs analysis**
- Municipality's strategic objectives
- Budget
- Institutional analysis
- Output specifications
- Scope of the project

Section 2: Submission requirements: **Technical solution options analysis**
- Technical options considered
- Evaluation and assessment of each technical option
- Summary of evaluation and assessment of all technical options considered
- Recommendation of a preferred technical option

Section 3: Submission requirements: **Service delivery options analysis**
- Delivery options considered
  Evaluation and assessment of each delivery option
- Summary of evaluation and assessment of all delivery options considered
- Recommendation of a preferred delivery option(s)

Section 4: Submission requirements: **Project due diligence**
- Legal aspects
- Use rights
- Regulatory matters
- Site enablement
- Socio-economic and BEE
- Accuracy of measurements and recordings in feasibility study.
- Items such as:
  - Identify any operating, financial or other contractual commitments which are binding on the Client and advise on options for dealing with them within the framework of a proposed transaction structure;
  - Assess any contingent liabilities, including tax and environmental as will need to be addressed in formulating a structure for private sector participation (in coordination with the Client and other consultants);
  - Review legal aspects of existing labor arrangements in the context of the proposed structure;
  - Review existing Client contractual arrangements to ensure compatibility with proposed arrangement;
  - Assist the Client in the development and presentation of recommendations for private sector participation in Project;
  - Make any other relevant recommendations relating to the Project;
  - Analyze and make recommendations on the initial concept for the Project and the risk allocation in draft Project Agreements, based on relevant precedents, and suggest and assist in making modifications as necessary following discussions with other members of the transaction team;

must also be catered for in the legal due diligence.

Section 5: Submission requirements: **Value assessment**
- Undertake an 'internal assessment' (costs of alternative technologies, avoided costs)
- Technical definition of project
- Discussion on costs (direct and indirect) and assumptions made in producing cost estimates
- Detailed financial matrix based on technical options and risk assessment per option inclusive of operations and maintenance.
- Detailed model on power generation and consumption based on technology types
- Discussion on revenue and assumptions made on revenue estimates plus value added benefits
- Financial matrix of revenue streams
- Detailed Socio-Economic benefit of the PPP
- BEE targets
- Financial model for equity partnerships
- Discussion on all model assumptions made in the construction of the model, including inflation rate, discount rate, depreciation, budgets and MTEF, as appropriate
- Technical definition of project
- Discussion on proposed PPP type
- Proposed PPP project structure and sources of funding
- Payment mechanism (including incentives for any revenue streams e.g. power and heat generated)
- Discussion on all model assumptions made in the construction of the model, including inflation rate, discount rate, depreciation, tax and VAT
- Risk assessment
- Comprehensive risk matrix for all project risks
- Summary of the municipality's retained and transferable risks
- Summary of results: NPV
- Summary of results: NPV, key indicators
- Sensitivity analyses
- Statement of affordability
- Statement of value for money, if appropriate
- Recommended procurement choice
- Information verification
- Summary of documents attached in Annexure 1 to verify information found in the feasibility study report

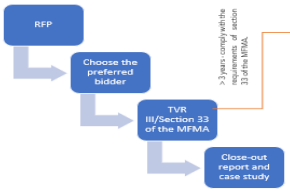
Section 6
Statement of compliance with the comments and representations received in response to MFMA section 120(6)(b) invitation to comment, as appropriate

Section 7
Statement of views and recommendations received in response to any required MFMA section 120(6)(c) solicitation

Section 8
Submission requirements: Outline the Procurement Plan

Annexures
Annexure 1: Statements for information verification and sign off from the Transaction Advisor to the project
Annexure 2: Letter of concurrence from CFO of municipality
Annexure 3: Risk assessment and comprehensive risk matrix
Annexure 4: Document list (list of all documents related to the project, where they are kept, and who is responsible for ensuring that they are updated)
Annexure 5, 6: Attach as annexure summaries of comments or representations received in terms of the MFMA section 120(6)(b) public notice and in terms of the MFMA section 120(6)(c) request for views and recommendations.
NB. Pricing must take into consideration all aspects of the work required per heading mentioned above in addition to the special requirements highlighted in the objective.

The PPP Procurement process 3 is as follows:



Thereafter, the PPP Contract Management 4 stage.

Section33 of the MFMA

(1) A municipality may enter into a contract which will impose financial obligations on the municipality beyond a financial year, but if the contract will impose financial obligations on the municipality beyond the three years covered in the annual budget for that financial year, it may do so only if -

(a) the municipal manager, at least 60 days before the meeting of the municipal council at which the contract is to be approved -

(i) has, in accordance with section 21A of the Municipal Systems Act -

(aa) made public the draft contract and an information statement summarising the municipality's obligations in terms of the proposed contract; and

(bb) invited the local community and other interested persons to submit to the municipality comments or representations in respect of the proposed contract; and

(ii) has solicited the views and recommendations of -

(aa) the National Treasury and the relevant provincial treasury;

(bb) the national department responsible for local government; and

(cc) if the contract involves the provision of water, sanitation, electricity or any other service as may be prescribed, the responsible national department;

(b) the municipal council has [illegible] -

(i) the municipality's projected financial obligations in terms of the proposed contract for each financial year covered by the contract;

(ii) the impact of those financial obligations on the municipality's future municipal tariffs and revenue;

(iii) any comments or representations received from the local community and other interested persons; and

(iv) any written views and recommendations on the proposed contract by the National Treasury, the relevant provincial treasury, the national department responsible for local government and any national department referred to in paragraph (a) (i) (cc); and

(c) the municipal council has adopted a resolution in which -

(i) it determines that the municipality will secure a significant capital investment or will derive a significant financial economic or financial benefit from the contract;

(ii) it approves the entire contract exactly as it is to be executed; and

(iii) it authorises the municipal manager to sign the contract on behalf of the municipality.

Requirements for Munis in terms of the New Gen Regs (including proposed amendments)

Municipality may apply to the Minister to establish new generation capacity in accordance with the integrated resource plan, and such application must–

(a) be accompanied by a detailed feasibility study as contemplated in sub-regulation (2);

(b) demonstrate sound financial standing of the Municipality; and

(c) be aligned to the Integrated Development Plan of that Municipality

5. Feasibility studies
(a) the anticipated cost of the proposed new generation capacity;
(b) the proposed allocation of financial, technical and operational risk between the prospective buyers and the seller, and between the seller and the NTC or the distributor, as the case may be;
(c) the demonstration of the anticipated value for money to be achieved through the new generation capacity project;
(d) the material legal, financial and technical requirements including consents that will be required in order to procure the new generation capacity; and
(e) whether the appropriate seller should be Eskom as part of its services as the national electricity producer, another organ of state or an IPP.[23]

"sound financial standing" means that the financial commitments to be incurred by an organ of state acquiring new generation capacity can be met by funds:
(a) designated within the organ of state's existing budget; or
b) destined for the organ of state in accordance with the future budgetary projections for the institution;".
This requirement must be determined in consultation with NT's requirements

IRP – Opportunities for Munis?

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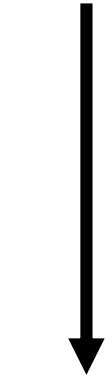
Table 5: IRP 2019

	Coal	Coal (Decommissioning)	Nuclear	Hydro	Storage	PV	Wind	CSP	Gas & Diesel	Other (Distributed Generation, CoGen, Biomass, Landfill)
Current Base	37 149		1 860	2 100	2 912	1 474	1 980	300	3 830	499
2019	2 155	-2373					244	300		Allocation to the extent of the short term capacity and energy gap.
2020	1 433	-557				114	300			
2021	1 433	-1403				300	818			
2022	711	-844			513	400 1000	1600			
2023	750	-555				1000	1600			500
2024			1860				1600		1000	500
2025						1000	1600			500
2026		-1219					1600			500
2027	750	-847					1 600		2000	500
2028		-475				1000	1 600			500
2029		-1694			1575	1000	1 600			500
2030		-1050		2 500		1 000	1 600			500
TOTAL INSTALLED CAPACITY by 2030 (MW)	33364		1860	4600	5000	8288	17742	600	6380	
% Total Installed Capacity (% of MW)	43		2.36	5.84	6.35	10.52	22.53	0.76	8.1	
% Annual Energy Contribution (% of MWh)	58.8		4.5	8.4	1.2*	6.3	17.8	0.6	1.3	

Installed Capacity
Committed / Already Contracted Capacity
Capacity Decommissioned
New Additional Capacity
Extension of Koeberg Plant Design Life
Includes Distributed Generation Capacity for own use

Munis



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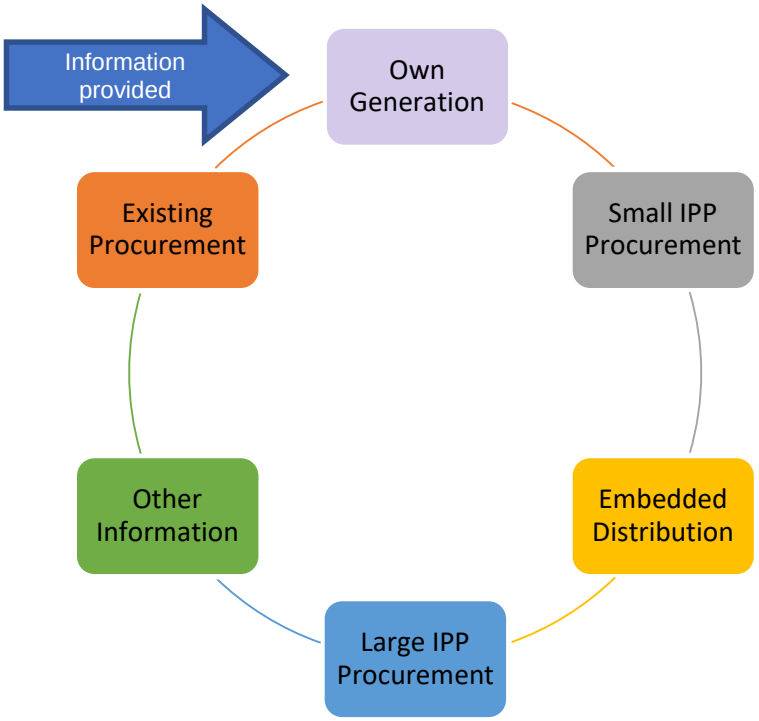
STAKEHOLDERS

Stakeholders

- **Metros and other muni's**
- **DMRE:** Policy owner and designator of procurement of new generation capacity.
- **National Treasury:** Custodian of the fiscus and government procurement policy owner. NT facilitates required exemptions where necessary.
- **NERSA** : National Regulator and provider of licences
- **DEFF:** provider of environmental licences
- **DTIC:** local content requirements
- **IPP Office:** central procurement undertaken on behalf of the DMRE
- **Banking and Financial institutions**
- **DBSA:** State-owned infrastructure development and finance institution.
- Developers and investors

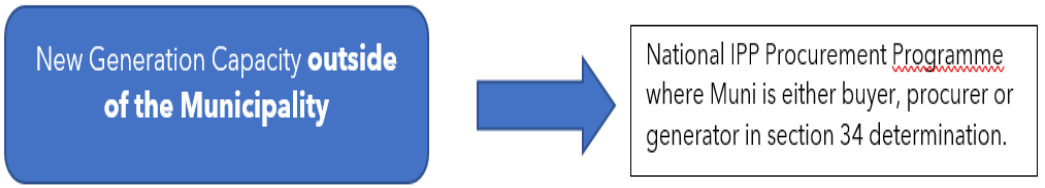
Workstream 3: New Business Models
PIPELINE OF PROJECTS AND READINESS

- Assimilated information provided by participating metros through questionnaire
- Questionnaire sent to the participating munis for completion



- In assessing the responses, it became apparent that procurement by municipalities could be compartmentalised into '**within the municipality**' and '**outside of the municipality**', the latter being a national programme.

1. Outside of the municipality



2. Within the municipality

Workstream 3: New Business Models
PIPELINE OF PROJECTS AND READINESS

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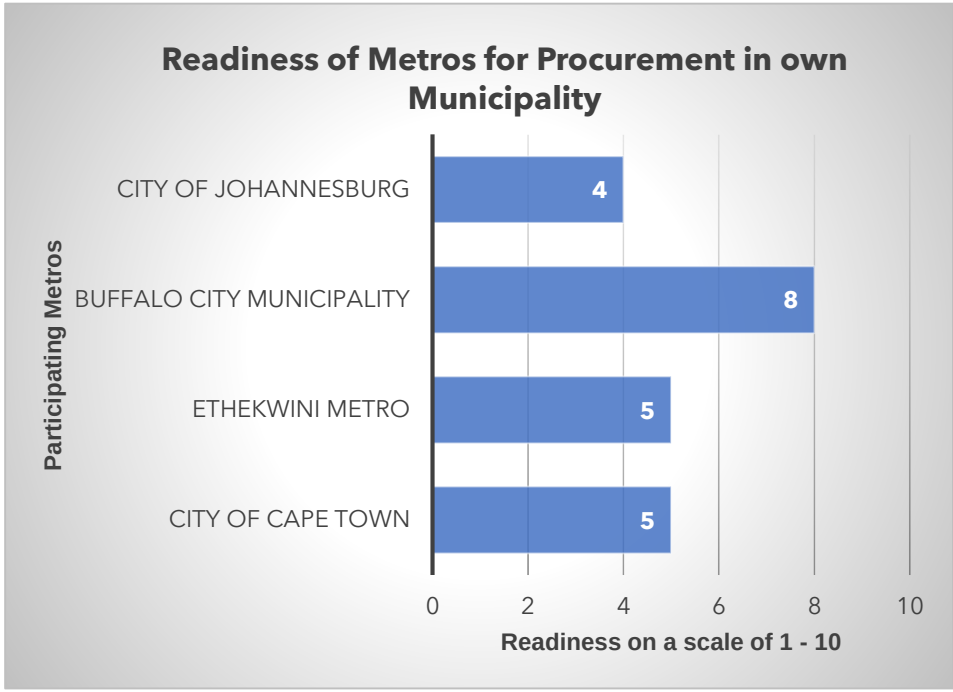
1. National Muni IPP Procurement

READINESS	IDENTIFIED SITES	CHALLENGES
• Regarding readiness all 4 metros were not fully confident that they were ready to participate in large scale IPP procurement.	• Buffalo City Municipality was the only metro to have identified sites, • However for a large scale programme, IPPs could be responsible for identifying sites, conducting the necessary studies and obtaining the required licences	• The challenges experienced by the participating metros were similar. • These related mainly to the legislative process, NERSA's role in issuing licences, the MFMA and PPP processes.

2. Procurement of new generation capacity from IPPs in the Municipality



Workstream 3: New Business Models
PIPELINE OF PROJECTS AND READINESS

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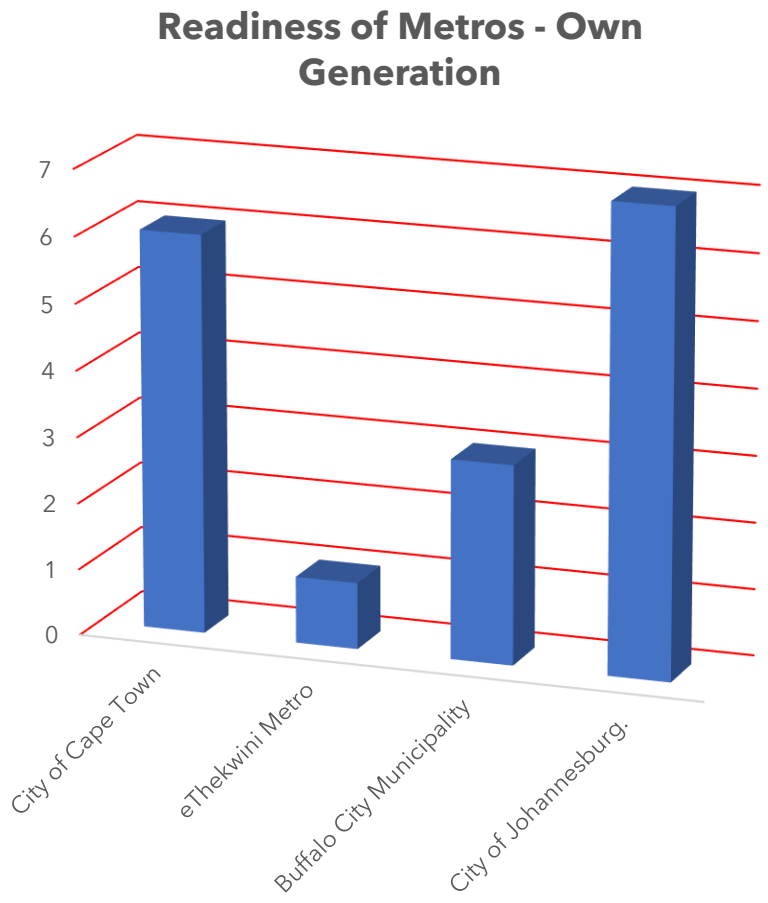
3. Metro Own Generation



	City of Cape Town	eThekwini Metro	Buffalo City Municipality	City of Johannesburg
Cost of Supply Study	Yes	Yes	Yes	Yes
Grid Impact Study	Yes	Yes	No	In progress

	City of Cape Town	eThekwini Metro	Buffalo City Municipality	City of Johannesburg
Energy Strategy / Master Plan	Partial	Yes	In the process	Yes

NT: CSP NEXT STEPS

OUTCOMES OF HIGH-LEVEL NOTE

Sustainable Municipal Energy

1

Metro level:
Readiness of metros for IPP Procurement

- Significant on the ground work to be undertaken such as grid impact studies, CoS studies
- Capacity building
- Sound financial standing requirements

2

National level:
Framework and design of national and municipal IPP Procurement Programmes

- Clarify the challenges experienced by munis in the legislative process for IPP Procurement
- Understand the New Gen Regs and its implications for muni IPP Procurement
- Support to proposed intergovt Sustainable Muni Energy Working Group for strategic input, collaboration and alignment

Barriers and challenges to reform: *discussion and input*

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Policy, Legal & Regulatory

- Policy & regulatory barriers
- Legal agreements
- Monitoring, evaluation and contract management

Financial

- Municipal balance sheet
- Economies of scale
- Value for money
- Tariff calculation
- Alternative mechanisms instead of government guarantees
- Other?

Technical

- Which technologies?
- Grid impact studies
- Other?

Economic Development

- Job creation and capacity building
- SED and ED
- Preferential procurement
- SA ownership (black, women)
- Local content requirements
- Price (70%) / Economic Development (30%)
- Other?

Clarifying legal and regulatory framework: *proposed work*

Legislative roadmap for different scenarios:

A. National Municipal IPP Procurement Programme (assumed as being similar to the Renewable Energy Independent Power Producers Procurement Programme ("REIPPPP") with necessary differences which would be applicable to municipalities);

B. Municipal IPP Procurement Programme (IPP is located within the municipality) where the municipality would be the procurer and the buyer with potential IPPs located within the municipality;

C. Municipal IPP Procurement Programme (IPP is located within the municipality on a municipal owned site) where the municipality would be the procurer and the buyer with potential IPPs bidding for a project to be located on municipal land;

D. Municipality own generation whether in the municipal jurisdiction or outside the municipal jurisdiction;

E. Municipality owned generation that is able to supply surrounding municipalities

F. Multi-buyer where municipality is one of more than one buyer; and

G. A pool of municipalities purchasing from one IPP or a pool of IPPs

H. Other

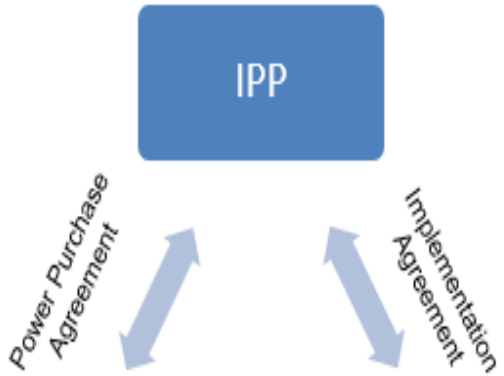
Legal and Regulatory Framework: *Steps*

- Reference Group set up to oversee project
- Analysis of existing legal and regulatory framework
- Gap analysis
- Proposed recommendations for short, medium and long term to improve legal and regulatory framework for each scenario
- **Issued as MFMA circular**

Other work undertaken outside of NT CSP:

- Bigger market structure reform
- Wheeling framework

Contractual Arrangements – REIPPP



Between the Buyer, the DoE, the Seller and the Lender. Facilitates the payment conditions to be adhered to. Gives lender step-in rights

Between the Seller and the DoE. Facilitates monitoring of performance of parties for the Term. Also sets out the extent of the government support

Direct Agreement also signed by the Lenders

Government Framework Support Agreement

The government support regulated by the GSFA – where Eskom fails to fulfil its payment obligations under the PPA and in respect of any payment obligations which arise as a result of any expropriation or nationalization by Government.

(IPP Office Presentation)

Munis

?

ToR - alternative models for clean energy investment not reliant upon fiscal support through the use of government guarantees

Guidelines, tools and templates and standardised project documents

Other key issues to be addressed: *discussion and input*

- Engagement with stakeholders → Proposed intergovt Sustainable Muni Energy Working Group for strategic input, collaboration and alignment on muni energy issues including muni IPP Procurement process
- Strong champions
- Institutional capacity
- On the ground work – grid impact studies etc. → Facilitating technical support - CoS studies, grid impact studies, energy strategies and master plans etc.
- Larger market structural reform
  - Unbundling of Eskom and the roadmap
  - Independent market operator
  - Legacy charges for 20 year PPAs → •Exploring incorporating a different regime e.g. CfD
- Sufficient competition
  - Drive down pricing
  - Impact of national IPP programme on interest in muni procurement and creation of new generation capacity
- Robustness of the procurement – transparent, efficient, no unsolicited bids, proper risk allocation → Lessons learnt from REIPPP

Summary

- Context
- Problem statement…
  - Discussion
- CSP's Programme of work in response
  - Discussion

- Way forward
  - Is the problem statement correct?
  - Are the proposed barriers / challenges correctly identified?
  - Is there alignment with the proposed response?

Next Steps

- Presenting the project and the input at the City Budget Forum – proposed for the 16th of October 2020
- Presenting the project and the input at the DG's policy group – proposed for the 2nd of November 2020
- Presenting the project to the Integrated Urban Development Framework (IUDF) technical committee
- Potential elevation of both the reforms to Operation Vulindlela

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THANK YOU