

# **REQUEST FOR PROPOSAL FOR ENERGY EFFICIENCY PROGRAMME AT BLOUBERG LOCAL MUNICIPALITY FOR A PERIOD OF THREE YEARS (TURN KEY)**

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## **1 Description of the Works**

Request for proposal for the implementation of energy efficiency works at Blouberg Local Municipality

## **2 Background Information**

Electricity demand has drastically increased in the last few years with the pinnacle being the rolling blackouts and load shedding that were experienced in 2008 due to a lack of peak demand power and most recently load shedding in early 2015.

As a short term goals of the country it was decided that energy efficiency programs be rolled out in all sectors including the public sector. Energy efficiency is widely recognized as the most fundamental short-run imperative for rapid, ambitious and cost-effective climate change mitigation. As a matter of fact, improved efficiency is the most cost-effective, least-polluting and readily-available energy resource.

More than half of the electricity-sector related carbon emissions reduction target in the coming twenty years could be achieved through energy efficiency.

Efficiency can enhance the competitiveness of economies while helping to alleviate energy poverty as energy becomes more available. Energy productivity gains will lower the cost for the economy as a whole, enhance the supply security and reduce the need to develop new sources of energy supply to serve those without access to modern energy services for health and education enhancement. Accelerated energy efficiency can also create attractive green jobs and businesses.

The 2012 strategic plan from the Department of Energy (DOE) pledges to save 20TWh in the next three years in the country. Over the years and the supply is very limited.

### **3 Employers Objectives**

The Blouberg Local Municipality, with the support of the Department of Energy (DOE) is in the process of implementing a grant based programme named the Energy Efficiency Demand Side Management (EEDSM) programme.

The main objectives are to conduct energy auditing, energy efficiency and energy management studies in order to develop, promote and support introduction and implementation of energy efficiency strategies/technologies, awareness, training and policies around the municipality on an as and when required basis for a period of three years.

This should be in line with the National Energy Efficiency Strategy that has to take into account the international experience. Including the evaluation of the impact of energy efficiency policies and measures on the actual energy efficiency performance of municipal infrastructure including buildings, street lights, robots, water purification plants and waste water treatment plants.

The focus should be on lighting retrofits and intelligent controls, energy management system operational improvements and electrical system operational improvements. This will lead to a full realisation of reduction in non greenhouse gas air pollution, health benefits, improved energy security, reduced energy costs and infrastructure savings

It aims at reducing consumption and wastage, thereby enhancing cost and energy savings within the municipal infrastructure.

The monitoring and verification by accredited individuals of energy savings across projects being implemented is key. Reporting of this energy savings will need to take place so as to prove that the energy efficiency measures are effective.

### **DEFINITIONS**

*Energy Assessment:* Energy assessments are energy audits as identified within the energy industry through such entities as the Department of Energy. Energy assessments will help identify the most cost-effective projects for implementation.

*Energy Conservation Measure (ECM):* Any measure that may be implemented to improve the operation and efficiency of a given energy consuming device or system without adversely affecting the quality of service provided. Includes any and everything identified as an energy deficiency, energy need or energy conservation measure.

*Energy Savings Initiative:* Energy savings initiatives are ECMs accomplished in conjunction and through an enhanced-use lease for energy

## **4 Scope of Work**

The recommended EEDSM programme scope of work to be implemented includes the following:

1. A pre retrofit (baseline) of the energy audit and energy performance evaluation study of all public facilities in the municipality's demarcations targeted for improvements (i.e. street lighting, traffic signals, public buildings, water pumping and waste water treatment plants). The above baseline energy use will be informed by all relevant information, such as operating conditions, measurements of various system equipment, log book trends, historical data, and any previous test reports on the existing operating conditions of the municipality.
2. Efficiency tests on the major energy consuming equipment, recommendations for replacing and retrofitting those that are inefficient, and calculations of projected benefits.
3. Suggestions for improvements to operating and maintenance practices.
4. Financial details on the investment required, including materials and potential service providers, expected savings, and payback period.
5. A list of the energy efficiency measures prioritized according to the highest rate of return on investment and organized into short, medium and long term categories

6. A risk analysis, technical & financial, including the mechanisms that need to be put in place to manage and control risks.
7. System mapping of the public facilities within the municipality to cover size, geographic location, type of technology, etc.

Following the Municipality's review and selection of potential investment initiatives, a more detailed evaluation of identified energy conservation initiatives and technical site data packages will be prepared and incorporated. This will include design where needed and implementation of the new efficient specification.

Please note that

- Measurement and Verification including reported tracking of energy savings should be achieved.
- A baseline must be provided for every energy efficient measure being done
- Post Implementation Consumption Data be provided for every energy efficient measure being done
- Skills development is important in up skilling people in the local communities therefore training programs have to be developed to cater for these individuals
- An accredited Certified Energy Manager (CEM) and Certified Measurement and Verification Professional (CMVP) should be part of the project team

**Note #1:** It is expected the successful energy consultant for this Statement of Work shall perform all the duties and requirements for all phases over a period of three years depending on the grants availability.

The following energy management stages are to take place in executing the project.

1. **Energy audit stage** - this is where we identify the energy resources and costs of that energy. We then proceed to establish the profile and the energy use and intensity
2. **Recommendation stage** - data from the audit stage will be analysed and identifications of energy saving opportunities can be presented.
3. **Approval for funding** - business cases will thus be presented on the official DOE Professional Electrical Engineers for Energy Efficiency and Demand Side Management Programme for 36 months.(Turn-key)-BM14/18/19

format showing return on investments and capital amount needed to implement the projects. Project will either be given the go ahead or asked to be modified so as to be more cost effective

4. **Detail design** –a detailed design by the consultant will be produced so as to guide the implementation part.
5. **Implementation** - upon successful business plan approval, the energy conservation intervention be implemented as per new or amended specifications.
6. **Commissioning**- the new technology will be commissioned by the consultant
7. **Operation and maintenance (O&M)** - the O&M manual will be handed over to the client so that he can properly maintain the new equipment.

Please note independent measurement and verification must be undertaken to verify the savings.

The types of ECM's will include but not limited to

- Building envelope enhancements
- Lighting retrofits and intelligent controls
- Energy management system operational improvements
- Equipment modernization, motor efficiency, variable speed drives and variable air volume conservation (VAV).
- Heating Ventilation and Air Conditioning improvements and upgrades

## 5 Performance Standards

As a requirement of this statement of Work, the consultant shall propose a municipal Energy Efficiency Strategy and business planning packages that complies with all applicable requirements of the Department of Energy. Further to that, the energy consultant shall ensure that Environmental requirements on energy conservation or efficiency management are in compliant to government regulations.

The turnkey consultant shall adhere to all applicable SANS standards most notably

SANS 50001: Energy Management Systems

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SANS 879: Energy Management Specifications

SANS 10400 XA: Energy Usage in Buildings

### **Implementation of Energy Efficiency Measure**

The turnkey consultant shall be responsible for implementation of the Energy Conservation Measures (ECM's) and progress reporting to the municipality on regular basis.

The strategy and its implementation approach must be technically feasible and compliant to relevant regulations and policies

The phase wise implementation budgeting approach must be feasible and inline with what is practically affordable by the client. The recommended funding side of the strategic implementation approach must be in line with the Municipal Finance Management Act, Act 56 of 2003 and Municipal Systems Act, Act 32 of 2000

### **Period of Performance**

This order expires three years from date of award. Depending on availability of grant from DOE

## **6 Evaluation Criteria**

### **Mandatory and Compulsory Attachments Required:**

- Company Registration certificate
- Certified copies of ID Documents for members/ Directors of Company
- Company Profile with list of experience projects and traceable references,
- Professional Electrical Engineering company accompanied by an Electrical Construction Company with (Turnkey project) Valid Proof of registration with the Construction Industry Development Board (CIDB) for 4 EPPE or 5 EP,
- Joint Venture Agreement in cases of a Joint Venture
- SANAS Accredited B-BBEE Verification Certified or Original Certificate(not disqualifiable)

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- Certified Copies of Appointment Letter(s) and Completion Certificate(s) of Relevant Projects.
- Valid Proof of registration with the Compensation for Occupational Injuries and Diseases Act (COIDA).
- Each document must be initialized
- Compulsory Briefing Session
- Registration with ECSA by atleast 50% of Shareholders
- Statement of Municipal Account for both Company and directors
- Annual Financial Statements for the past 12 months
- Proof of Registration on the National Treasury Website (Summary of Central Supplier Database/CSD report) Report), fully completed and signed MBD1 to MBD 9 forms (downloadable from <http://www.blouberg.gov.za>)

### Phase 1 Technical Functionality

The minimum qualification score for functionality shall be 70% in order to proceed to Phase 2 Evaluation.

<b>Category 1 : Project Team Capability</b>		
<b>Team Qualifications Attach CV and certified Copies of Qualifications</b>	<b>Points</b>	<b>Weight</b>
Team leader must have a 5 years' experience in implementing energy related projects and should have led 3 projects that developed and implemented an energy project. Contact details for reference checks in line with the 3 projects should be provided and Attach completion certificate or reference letters	15(each letter equal 5 points)	<b>40</b>

Team leader must have been a qualified and registered Professional Electrical Engineer with at least a degree in electrical engineering. Certified copies of certificate should be attached.	10	
Atleast one employee should have a certificate or Diploma in Project Management. Qualifications should be provided.	5	
Atleast on employee Certified as Energy Auditor or Engineer/ Measurement and Verification Professiona(CMVP) and has done a municipal EEDSM project before. Certified Qualifications to be provided	5	
At least one individual team member should be a certified electrician with a Wireman's license or trade test.Copies of certified certificates must be attached to the proposal as proof, failure to attach, bidders will forfeit points.	5	
<b>Category 2: Company Capability</b>		
<b>Company Past Experience (Reference for all projects to be shown in the company profile)</b>	<b>Maximum Points</b>	<b>Weighting</b>
Atleast four electrical projects fully implemented by the company. Of the four electrical projects three must be energy efficiency or renewable energy projects. Appointment Letters and contactable references to be provided.	20(each letter equal to 5 points)	<b>40</b>
Company Quality Policy and SHE Policy	5	
Proof of Professional Indemnity Insurance	5	

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Proof of registration as an Energy Services Company( ESCO).	10	
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<b>Category 3: Quality of the Proposal</b>		
<b>Proposal Content (Presentation of Proposal to the Bid Evaluation Committee might be required)</b>	<b>Maximum Points</b>	<b>Weighting</b>
Clear understanding of the Scope	5	<b>20</b>
Clearly Defined Methodology and Technical Approach on addressing the problem statement	5	
Proper allocation of resources, program of work with deliverables	5	
Project Organogram highlighting personnel structure	5	

**Phase 2**

Proposals will be evaluated in terms of the revised Preferential Procurement Regulations 2017 and the Supply Chain Management Policy of Blouberg Local municipality. 80/20 preference points system (where 80=price) and (20) B-BBEE will be the criteria for further Evaluation.

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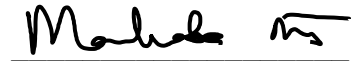
**NB: Copies of brief CVs of the proposed project team leader and member(s) describing their relevant skills and experience, and roles in the proposed projects must be included in the proposal failure to attach, bidders will forfeit points. Each CV must not exceed 4 pages.**

## 7 Pricing

Item	Description				
<b>A</b>	<b>Project Planning</b>	<b>Unit</b>	<b>Qty</b>	<b>Rate</b>	<b>Amount</b>
A1	Project Administration	Hrs	96,00		-
A2	Facilities Inventory	Hrs	80,00		-
A3	Conduct Energy Audits and Measurements	Hrs	200,00		-
A5	Compilation of Energy Consumption Baseline	Hrs	120,00		-
<b>B</b>	<b>Project Management</b>	<b>Unit</b>	<b>Qty</b>	<b>Rate</b>	<b>Amount</b>
B1	Project Management	Hrs	300,00		-
<b>C</b>	<b>Implementation of Energy Efficiency Strategy</b>	<b>Unit</b>	<b>Qty</b>	<b>Rate</b>	<b>Amount</b>
C1	Energy Efficiency Awareness	Hrs	60,00		-
C2	Capacity Building and Training	Hrs	55,00		-
C3	Efficiency Implementation and Retrofits at Municipal Facilities	Item	N/A		
<b>Total Exc VAT</b>					-
<b>VAT</b>					-

Total Inc VAT

Approved by



Machaba Junias