



ENERGY OFFICE

eThekwini. The sustainable energy hub.

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REQUEST FOR QUOTATIONS

Supply and Installation of Remote Energy Monitoring Equipment in Municipal Buildings

18 November 2011

1. Background

Nationally, energy resources have been abundant and relatively cheap compared to the rest of the world for much of the 20th and early 21st century. This is primarily because South Africa's energy is derived from coal which is cheaply mined out of the earth. This has led to a culture of inefficient energy usage in all sectors of South Africa, including the public sector. More recently, this situation has started to change and the country has experienced a major shift in the way energy resources are viewed. This is due to a number of reasons, namely:

1. National electricity supply is constrained leading to rolling blackouts 'load shedding' in 2008 and could lead to further load shedding the future.
2. Year on year increase in electricity prices to finance the building of power stations that is set to increase the electricity supply.
3. National Government's commitment to reduce the national level greenhouse gases (GHGs) There has been growing international concern regarding the emission of GHGs are released as a result of the burning of fossil fuels to satisfy the country's energy demands.

The above has prompted National Government to publish a number of guiding documents where energy efficiency has been prioritised as a short to medium term intervention to address these problems. Two important documents promoting these ideas were published in the last decade, namely the Energy Efficiency Strategy (2005) and; the Long Term Mitigation Scenarios (2009).

Locally, the eThekwini Municipality has recognised the importance of energy efficiency, with the eThekwini Energy Strategy (2009) defining a key action plan as "Promoting and Enabling Energy Efficiency in the Public Sector". The eThekwini Energy Office has therefore begun to implement various energy efficiency technologies and strategies that can be adopted public infrastructure across the city, including municipal buildings but also in street and traffic lights. The Municipality has already embarked on several campaigns to this end mainly through the Energy Efficiency Demand Side Management (EEDSM) Programme.

2. EEDSM Program

Funding for the project was provided by the National Treasury through the Division of Revenue Act (DoRA) fund for the Energy Efficiency and Demand Side Management (EEDSM) programme. The EEDSM fund is for South African municipalities only and has been disbursed over a three year period for the purpose of implementing energy efficiency interventions. Through the programme, a number of energy efficient interventions have taken place in eThekweni Municipality thus far, which include energy efficient lighting technology in selected municipal buildings as well as in street and traffic lights.

One of the key issues emerging from the building retrofit component of the project is the need for more accurate data on energy consumption within specific buildings.

The eThekweni Energy Office and City Architects therefore intend to procure remote monitoring equipment that can be installed in various municipal buildings to better understand energy consumption and identify areas of energy efficiency interventions.

3. Services Required

The core services required as part of this program will be the supply and delivery of ten (10) remote electricity monitoring devices in ten different municipal buildings.

3.1 Technology

The technology implemented should:

1. Measure energy data in real-time including
 - a. Consumption
 - b. Power Factor
 - c. Load Balance (for 3 phase)
2. Translate energy metrics and technical data to commercial terms, for different types of tariffs.
3. Translate energy metrics and technical data to CO2 equivalent
4. Include environmental data such as temperature and or humidity
5. Communicate wastage, consumption anomalies and excessive usage immediately
6. Independent of on-site network and IT infrastructure
7. Fully independent hosted and managed solution
8. All data available in standard web browser and downloadable into standard spreadsheet applications.

3.2 Project Management

The service provider implementing the project should:

1. Installation of 10 monitoring devices
2. Set up on-line interface for data analysis
3. Train eThekweni Staff in using application

4. Deliverables

The expected deliverable from the initiative will be:

1. The supply and Installation of Remote Energy Monitoring Equipment in Municipal Buildings
2. The establishment of a on-line data management interface
3. A training session to teach municipal staff to use the technology

5. Time Frames and Budget

A timeframe of 1 month has been allocated for the rollout of this project. A detailed budget stipulating professional fees and other expenses needs to be provided in the Quotation. The appointment will be done through a competitive bidding process and will be adjudicated according to the 80:20 rule. The procurement will be done in terms of the Section 18 of approved Supply Chain Management Policy, "Procedures for procuring goods or services through written or verbal quotations and formal written price quotations¹".

6. Adjudication Criteria

The quotations will be assessed according to 2 step process. The first step is a functionality assessment and companies must score a minimum of 80 points (out of 100) in order to be assessed any further. Step 2 is adjudicated according to price and preferential procurements.

The scores for functionality are calculated as follows:

Step 1: Functionality	Score
1) Technology	
Measure energy data in real-time including a) Consumption b) Power Factor c) Load Balance (for 3 phase)	Compulsory
Independent of on-site network and IT infrastructure	Compulsory
Fully independent hosted and managed solution	Compulsory
All data available in standard web browser and downloadable into standard spreadsheet applications.	Compulsory
Translate energy metrics and technical data to commercial terms, for different types of tariffs.	25
Translate energy metrics and technical data to CO2 equivalent	25
Include environmental data such as temperature and or humidity	25
Communicate wastage, consumption anomalies and excessive usage immediately	25
2) Management	

¹ <http://www.durban.gov.za/durban/government/scm/strategy/Approved%20SCM%20Policy.pdf>

Step 1: Functionality	Score
Installation of 10 monitoring devices	Compulsory
Set up on-line interface for data analysis	Compulsory
Train eThekwini Staff in using application	Compulsory
TOTAL	100

Service providers are scored where applicable as Yes = Full points No = 0 points

Service providers must score a minimum of 80 points for functionality to be assessed further.

The scores for price and procurement are calculated as follows:

Step 2: Price and Preferential Procurement	Score
1) Price including 3500 units, project management, VAT and all other costs	80
2) Preferential Procurement (FPLITE Score)	20

7. Compulsory Briefing Meeting

There will be a compulsory briefing meeting 14:00 on Friday the 25th November at:

Imbuia Boardroom

1st Floor, Florence Mkhize Building (Old Martin West Building)

251 Anton Lembede Street (Old Smith Street)

Durban.

8. Quotation Submission

Quotations should include the following information:

- 1) Technology Description
 - a. A detailed description of technology to include all items listed in the adjudication list above
- 2) Management
 - a. A detailed description of project management to include all items listed in the adjudication list above
- 3) Service Provider
 - a. Experience in managing similar programs
- 4) Budget breakdown
- 5) Time frame breakdown
- 6) Supporting Documents
 - a. Signed Declaration (see Annexure 1)
 - b. Signed Declaration (see Annexure 2)
 - c. Copy of Valid Tax Clearance Certificate.
 - d. Copy of latest utility bill.

- e. Focussed Procurement Lite registration details (<http://fplite.durban.gov.za/>)

The eThekweni Energy Office does not bind itself to accept any quotation, and reserves the right to accept a portion of any quotation, unless the supplier expressly stipulates otherwise in their quotation.

The eThekweni Energy Office does not undertake to consider quotations received after the due date and time unless clear evidence of dispatch is available (e.g. postage stamp with date). Quotations should be submitted preferably by email.

Please submit your quotation by 11:00am on Friday, the 2nd December 2011 to:

Derek Morgan

E-mail: morgand@durban.gov.za

3rd Floor Florence Mkhize Building

251 Anton Lembede Street, Durban

Tel: 031 311 11 39

9. Annexure 1: Declaration

_____ (Name of Service Provider) hereby state:

- 1) Is the service provider is a natural person (Yes/No)
 - a. If the service provider is a natural person, has the service provider been is in the service of the state, or has been in the service of the state in the previous twelve months; (Yes/No)
 - b. If Yes, please provide details

- 2) If the service provider is not a natural person, are any of its directors, managers, principal shareholders or stakeholder is in the service of the state, or has been in the service of the state in the previous twelve months; (Yes/No)
 - a. If Yes, please provide details

- 3) If the service provider is not a natural person, has a spouse, child or parent of the provider or of a director, manager, shareholder or stakeholder referred to in subparagraph (2) is in the service of the state, or has been in the service of the state in the previous twelve months. (Yes/No)
 - a. If Yes, please provide details

Service Provider

Date:

Name:

Designation:

Signature:

10. Annexure 2: Declaration 2

_____ (Name of Service Provider) hereby states that the proposed equipment complies to the following criteria:

Step 1: Functionality	Score	
1) Technology		Yes/ No
Measure energy data in real-time including a) Consumption b) Power Factor c) Load Balance (for 3 phase)	Compulsory	
Independent of on-site network and IT infrastructure	Compulsory	
Fully independent hosted and managed solution	Compulsory	
All data available in standard web browser and downloadable into standard spreadsheet applications.	Compulsory	
Translate energy metrics and technical data to commercial terms, for different types of tariffs.	25	
Translate energy metrics and technical data to CO2 equivalent	25	
Include environmental data such as temperature and or humidity	25	
Communicate wastage, consumption anomalies and excessive usage immediately	25	
2) Management		
Installation of 10 monitoring devices	Compulsory	
Set up on-line interface for data analysis	Compulsory	
Train eThekwini Staff in using application	Compulsory	
TOTAL	100	

Service Provider

Date:

Name:

Designation:

Signature: