



## ENERGY OFFICE

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### Request for Quotation: Solar City Power Demonstration Model

#### 1 Purpose

The purpose of this Request for Quotation (RFQ) is to outline the scope of work for an independent service provider to supply, design and construct a City Power Demonstration Model with functions as outlined in this document. This project is a marketing initiative that forms part of the city's drive to increase and promote the usage of these initiatives in reducing Greenhouse Gas Emissions that contribute to Climate Change.

#### 2 Description

The device will be utilized to demonstrate Electricity generation using the solar power which is a Renewable source. This Unit will have building/houses, having rooftop solar PV panels powering lights only specifically energy efficient street lights and the electric car(s) for climate change mitigation as illustrated in Figure 1 below will only be for low-carbon transport demonstration in the city. The model should be scaled appropriately (for a 60cm by 60cm display unit) and include roads, trees, parking on roads, bicycle, houses, various buildings. All elements should incorporate realistic elements (e.g. type and angle of a roof). The project is aimed to demonstrate the Municipality commitment to mitigate against climate change using renewable energy sources and energy efficient technologies to showcase some options available to the public.



**Source:** Grid Optimization, T&D World Magazine Jan 26, 2015

**Figure1:** Typical example of the design for solar city model

### 3 Scope of work

The scope of works for the Solar City Power Demonstration Model is as follows:

- 1) Supply, design and construction of a Solar City Demonstration Model powering Energy efficient street lights and also have a small electric car for climate change mitigation technology and the design of this unit must be as shown in Figure 1 above preferably include roads, trees, parking on roads, bicycle, houses, various buildings. All elements should incorporate realistic elements (e.g. type and angle of a roof) and these elements must be constructed using an environmentally friendly material, and Energy Office will consider innovative ideas brought forward by the service provider.
- 2) Relevant sizing of the whole model by the service provider to suite the scale of 60cm×60cm as requested
- 3) Basic staff training (during official handover) on how to use the model/unit and how it works.
- 4) Technical training of the Energy Office electrical engineering Intern during design and construction.
- 5) Other design proposals (alternative offers) which are deemed to be relevant to the project objective may be considered.

#### 3.1 Design elements of the Unit

The demonstration model shall be designed and constructed in accordance to the specifications outlined below;

##### 3.1.1 System Components

The components or technical parameters of this project model are as written in the table below with their functions:

Parameter(s)	Function(s)	Desired Size(s) or type(s)
Buildings/Houses	Shall be used to model for realistic houses and buildings for demonstration.	These buildings/houses must be made from an Eco- friendly material and Energy Office will consider innovative ideas brought forward by the service provider.
Solar PV panels	Convert the Sunlight into Electricity (DC).	The size that will be able to power street lights of this model and must fit in those small houses/buildings. The desired type of Solar Panel types are Monocrystalline or Polycrystalline and are chosen because of their high efficiency.
High brightness LED	Artificial light source that will be used to replace the sun for exhibition purposes.	This LED light must be able to give enough and most required energy to the solar panels and must have its own cable to connect to the supply power from the wall socket.
Protective Equipment	To protect the whole system and also the people using/operating this demonstration model.	Size will be according to the size of the system.
Electric car	To demonstrate the low-carbon transport as a climate change mitigation intervention in the City.	It shall be small in size to accommodate for the size of the whole system.
Street Lights	To power the whole demonstration model for exhibition purposes and showcase its storage capability during hours when there is no Sun (at night).	The size shall accommodate the 60×60 cm design and the types of street light that shall be used must be energy saving (energy efficient).

Backup Battery(ies)	To power the whole demonstration model for exhibition purposes to showcase when there is no Electricity or Sun(at night)	Size of the batteries shall accommodate the loads of the system. The type should be deep-cycle batteries as they can persist repeated and deep charges.
Power Meter	To measure and display power output by the solar panels and/or power from the battery (ies in Watts per second).	The display must be clearly visible to people.

- This unit/model shall have the EThekwini Municipality Logo(s) and the branding shall be full original colour.
- The unit shall have suitable devices for electrical protection and isolation.
- Before construction begins, the designs must be approved by the Energy Office.
- All components should be SABS approved
- All components of the kit must have a minimum Warranty of three years
- The kit must be of Good quality and Workmanship

## 4 Proposal Submission

This contract will be adjudicated in terms of the eThekwini Municipality Supply Chain Management rules and policies and will follow 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 quotations<sup>1</sup>" (i.e. formal written price quotations for procurements of a transaction value over R30 000 up to R200 000 (VAT included).

### 4.1 Proposal Adjudication criteria

The adjudication of proposals will be conducted in two phases in terms of the following Scoring System:

#### 4.1.1 Step 1: Functionality (100 Points)

Service providers will be judged on relevant project experience and ability to carry out the job successfully.

Companies/Individuals must score a minimum of 70 points for "Step 1: Functionality" in order to be evaluated for "Step 2: Price and Preferential Procurement".

The adjudication of proposals will be conducted in two phases in terms of the following Scoring System:

Criteria	0%	40% (poor)	70% (satisfactory)	90% (good)	100% excellent)
1	0 points	20 points	40 points	48.5 points	50 points
2	0 points	18 points	25 points	33 points	35 points
3	0 points	2 points	5 points	8.5 points	10 points
4	0 points	0 points	0 points	0 points	5 points

Criteria	Description	0%	Poor (40%)	Satisfactory (70%)	Good (90%)	Very good (100%)
Experience in electrical/electronic simulation panel or similar product development.	Do the service provider and the proposed team have the necessary experience in electrical/electronic simulation panel or similar product development-Model buildings?	No response (0)	The team has some experience in electrical/electronic simulation panel or similar product development but have not completed similar projects (20)	The team has completed at least one project of similar nature, size and complexity (40)	The team has completed more than one project of similar nature, size and complexity (48.5)	The team has completed more than one project of similar size and complexity with a specific focus on energy units. (50)
Type/Kind of material	Has the service provider proposed to use and Eco-friendly material and include innovative design ideas in developing this design.	No Response(0)	The service provider has proposed to use Eco-friendly material(18)	The service provider has proposed to use Eco-friendly material and has included one innovative design idea(25)	The service provider has proposed to use Eco-friendly material and has included more than one innovative design ideas(33)	The service provider has proposed to use Eco-friendly material and has included more than two innovative design ideas(35)

Warranties and guaranties	Has the service provider specified the component, product or system warranty or guarantee in the submission document.	No Response (0)	The service provider has specified manufacture warranties and guarantees only. (2)	The service provider has specified manufacturer warranties and guarantees as well as a system warranty of up to 12 months (5)	The service provider has specified manufacturer warranties and guarantees as well as a system warranty of up to 18 months (8.5)	The service provider has specified manufacturer warranties and guarantees as well as a system warranty of more than 24months (10)
Supplier location	Is the supplier located in the eThekwini Municipal Area?	Not located in the eThekwini Municipa l Area(0)	Not applicable (0)	Not applicable (0)	Not applicable (0)	The supplier is located (i.e. has office space) in eThekwini Municipali ty (5)

#### 4.1.2 Step 2: Price and preferential procurement (100 points)

- Price [80 points]
- Preferential Procurement [20 Points] Broad Based Black Economic Empowerment Points will be awarded to bidders in accordance with the table below:

B-BBEE Status Level of Contributor	80/20 Point System
1	20
2	18
3	16
4	12
5	8
6	6
7	4
8	2
Non-compliant contributor	0

## 4.2 Total Scores

The total adjudication score will be recorded as follows

Criteria	Max.Points Scoring
<b>Phase1: Functionality</b>	<b>100 Points</b>
Team member's experience	50 points
Material	35 points
Warranties & Guaranties	10 points
Location	5 points
<b>TOTAL Phase 1:</b>	<b>100</b>
<b>Phase 2: Price and Preferential Procurement</b>	<b>100 Points</b>
Price	80
<b>Preferential Procurement</b>	<b>20</b>
<b>TOTAL Phase 2:</b>	<b>100</b>

## 5. Proposal Requirements

Proposals need to be structured as follows:

- 1) A chapter outlining the company history and background.
- 2) A chapter clearly outlining Team member's experience in electronic product development with examples of previous work. Please indicate team member's names that will be working on this project. Clearly indicate which product was done by which team member and state the date product was developed
- 3) A chapter clearly outlining warranties and guaranties for specific components
- 4) A chapter clearly outlining a budget breakdown showing the total amount for product development including VAT. The proposal must be accompanied by the following supporting documents:
  1. The location of the submitting entities offices,
  2. Original Valid Tax Clearance certificate,
  3. Annexure: Supporting Documents (MBD 9 Forms):
    - a. Original Declaration of Interest
    - b. Original Declaration of Municipal Fees ( Letter of landlord must be included if the supplier is renting)
    - c. Original Certificate of Independent Bid Determination
    - d. Certified copy of BBBEE certification

## THE CLOSING DATE FOR SUBMISSIONS OF QUOTATIONS IS 11H00 ON THE 21<sup>st</sup> OF DECEMBER 2016

Each service provider must submit a quotation clearly marked **“RFQ-Solar City Power Demonstration Model”**

“Quotations/proposals need to be submitted to:

E-mail: (LUNGILE.MTHETHWA@durban.gov.za)

Delivered to: LUNGILE MTHETHWA

Energy Office: 3<sup>rd</sup> Floor, SmartXchange Building, Durban, 4001

Tel: 031 311 4509

For Technical Queries contact

Sibongile Cele ([SBO.CELE@durban.gov.za](mailto:SBO.CELE@durban.gov.za))

Tel: 031-322 2926

**“An optional not compulsory briefing meeting will be held at Energy Office, SmartXchange on the 12<sup>th</sup> of December 2016 at 14:00-15:00”**

**NOTE: Soft copies and hard copies are compulsory therefore there must be submitted.**

Please ensure that you receive a confirmation of receipt if submitted by email and that emails do not exceed 5 MB in size. The eThekweni Municipality does not bind itself to accept the lowest or 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. This request for quotations is subject to any changes which may stem from a negotiation of the final terms with the service provider, as well as any additional budget which may be allocated to the project. Payment arrangements will be negotiated on the basis of the completion of project milestones and will be outlined in the letter of appointment. Final payment will be paid on full completion of the project and the receipt of the final set of deliverables.

### **Annexure: Supporting Documents**

#### **A. DECLARATION OF INTEREST**

1. No bid will be accepted from persons in the service of the state<sup>2</sup>
2. Any person, having a kinship with persons in the service of the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid. In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons connected with or related to persons in

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<sup>2</sup>MSCM Regulations: “in the service of the state” means to be –

- (a) a member of –
  - (i) any municipal council;
  - (ii) any provincial legislature; or
  - (iii) the national Assembly or the national Council of provinces;
- (b) a member of the board of directors of any municipal entity;
- (c) an official of any municipality or municipal entity;
- (d) an employee of any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No.1 of 1999);
- (e) a member of the accounting authority of any national or provincial public entity; or
- (f) An employee of Parliament or a provincial legislature.

service of the state, it is required that the bidder or their authorised representative declare their position in relation to the evaluating/adjudicating authority.

3. In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.

3.1. Full Name of bidder or his or her representative:.....

3.2. Identity Number: .....

3.3. Position occupied in the Company (director, trustee, shareholder<sup>3</sup>):.....

3.4. Company Registration Number: .....

3.5. Tax Reference Number:.....

3.6. VAT Registration Number: .....

3.7. The names of all directors / trustees / shareholders members, their individual identity numbers and state employee numbers must be indicated in paragraph 4 below.

3.8. Are you presently in the service of the state? **YES / NO**

If yes, furnish particulars.....

3.9. Have you been in the service of the state for the past twelve months? ..... **YES / NO**

If yes, furnish particulars.....

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3.10. Do you have any relationship (family, friend, other) with persons in the service of the state and who may be involved with the evaluation and or adjudication of this bid? ..... **YES / NO**

If yes, furnish particulars.

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3.11. Are you, aware of any relationship (family, friend, other) between any other bidder and any persons in the service of the state who may be involved with the evaluation and or adjudication of this bid? **YES / NO**

If yes, furnish particulars

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<sup>3</sup>Shareholder” means a person who owns shares in the company and is actively involved in the management of the company or business and exercises control over the company.



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3.12. Are any of the company's directors, trustees, managers, principle shareholders or stakeholders in service of the state? **YES / NO**

If yes, furnish particulars.

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3.13. Is any spouse, child or parent of the company's directors, trustees, managers, principle shareholders or stakeholders in service of the state? **YES / NO**

If yes, furnish particulars.

.....

.....

3.14. Do you or any of the directors, trustees, managers, principle shareholders, or stakeholders of this company have any interest in any other related companies or business whether or not they are bidding for this contract? **YES / NO**

3.14.1 If yes, furnish particulars:

.....

.....

4. Full details of directors / trustees / members / shareholders.

Full Name	Identity Number	State Employee Number

.....

**Signature**

.....

**Date**

.....

**Capacity**

.....

**Name of Bidder**

**A. DECLARATION OF MUNICIPAL FEES**

I/We do hereby declare that the Municipal fees of \_\_\_\_\_ (company name), are, as at the date of the tender closing, fully paid up, or arrangements have been concluded with the Municipality to pay the said fees:

<b>ACCOUNT</b>	<b>ACCOUNT NUMBER</b>
ELECTRICITY	_____
WATER	_____
RATES	_____
JSB LEVIES	_____
OTHER	_____

I acknowledge that should it be found that the Municipal fees are not up to date, the Council may take such remedial action as is required, including termination of contract, and any income due to the Contractor shall be utilized to offset any monies due to the Council.

_____	_____
Name	Signature
_____	_____
Designation	Date

## **B. CERTIFICATE OF INDEPENDENT BID DETERMINATION**

1. This Municipal Bidding Document (MBD) must form part of all bids<sup>1</sup> invited.
2. Section 4 (1) (b) (iii) of the Competition Act No. 89 of 1998, as amended, prohibits an agreement between, or concerted practice by, firms, or a decision by an association of firms, if it is between parties in a horizontal relationship and if it involves collusive bidding (or bid rigging).<sup>2</sup> Collusive bidding is a prohibition meaning that it cannot be justified under any grounds.
3. Municipal Supply Regulation 38 (1) prescribes that a supply chain management policy must provide measures for the combating of abuse of the supply chain management system, and must enable the accounting officer, among others, to:
  - a. take all reasonable steps to prevent such abuse;
  - b. reject the bid of any bidder if that bidder or any of its directors has abused the supply chain management system of the municipality or municipal entity or has committed any improper conduct in relation to such system; and
  - c. Cancel a contract awarded to a person if the person committed any corrupt or fraudulent act during the bidding process or the execution of the contract.
4. This MBD serves as a certificate of declaration that would be used by institutions to ensure that, when bids are considered, reasonable steps are taken to prevent any form of bid-rigging.
5. In order to give effect to the above, the attached Certificate of Bid Determination (MBD 9) must be completed and submitted with the bid:

<sup>1</sup> Includes price quotations, advertised competitive bids, limited bids and proposals.

<sup>2</sup> Bid rigging (or collusive bidding) occurs when businesses, that would otherwise be expected to compete, secretly conspire to raise prices or lower the quality of goods and / or services for purchasers who wish to acquire goods and / or services through a bidding process. Bid rigging is, therefore, an agreement between competitors not to compete.

## MBD 9 CERTIFICATE OF INDEPENDENT BID DETERMINATION

I, the undersigned, in submitting the accompanying bid:

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(Bid Number and Description)

In response to the invitation for the bid made by:

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(Name of Municipality / Municipal Entity)

Do hereby make the following statements that I certify to be true and complete in every respect:  
I certify, on behalf

Of: \_\_\_\_\_ that:  
(Name of Bidder)

1. I have read and I understand the contents of this Certificate;
2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;
3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;
4. Each person whose signature appears on the accompanying bid has been authorized by the bidder to determine the terms of, and to sign, the bid, on behalf of the bidder;
6. For the purposes of this Certificate and the accompanying bid, I understand that the word "competitor" shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:
  - a) has been requested to submit a bid in response to this bid invitation;
  - b) could potentially submit a bid in response to this bid invitation, based on their qualifications, abilities or experience; and
  - c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder
6. The bidder has arrived at the accompanying bid independently from, and without consultation, communication, agreement or arrangement with any competitor. However, communication between partners in a joint venture or consortium<sup>3</sup> will not be construed as collusive bidding.
7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
  - a) prices;
  - b) geographical area where product or service will be rendered (market allocation)
  - c) methods, factors or formulas used to calculate prices;
  - d) the intention or decision to submit or not to submit, a bid;
  - e) the submission of a bid which does not meet the specifications and conditions of the bid; Or
  - f) bidding with the intention not to win the bid.

8. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this bid invitation relates.

9. The terms of the accompanying bid have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.

10. I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to bids and contracts, bids that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No. 89 of 1998, and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No. 12 of 2004 or any other applicable legislation.

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Signature

Date

.....

.....

Position Name of Bidder

Date

<sup>3</sup> Joint venture or Consortium means an association of persons for the purpose of combining their expertise, property, capital, efforts, skill and knowledge in an activity for the execution of a contract.