

# **CALL FOR PROPOSALS FOR THE INSTALLATION (ONLY\*) OF SOLAR WATER HEATERS (SWH) FOR THE CEF SUSTAINABILITY (CEFS) PROJECT IN NELSON MANDELA BAY MUNICIPALITY\*\***

- *There is a separate call for proposals for the supply of the SWH units.*
- *This request negates any previous considerations, discussions or assumed commitments that may be prevalent under the previous CEFS procurement processes.*

## **PRE AMBLE:**

CEF (Pty) Ltd is mandated to facilitate and promote the usage of alternative energy sources in South Africa. CEF has entered into a contract with the Nelson Mandela Bay Municipality in Port Elizabeth for the large-scale installation of Solar Water Heaters for domestic use. The project will be undertaken in Phases and a number of suppliers and installers will be used over a period of 5 years. Tenders are hereby invited for the installation only, of the high pressure systems which will be procured by CEF and supplied free of charge to the successful bidders. The nature and the type of SWH units could differ from supplier to supplier and in time should technologies change.

## **TENDER INFORMATION REQUIRED:**

Tenderers must provide all information as per Schedule A, B and C as attached hereto. The need for this information and further background is provided for in this document

## **STANDARDS:**

All installations must comply with the following standards:

SANS 10106:2006 (SABS 0106)

The installation, maintenance, repair and replacement of domestic solar water heating systems

SANS 10254:2004 (SABS 0254)

The installation, maintenance, replacement and repair of fixed electric storage water heating systems.

SANS 10252-1 Part 1:

Water supply installations for building

SANS 1848: 2006 (SABS 1848)

Geyser Drip Trays

### **COMPETENCIES OF INSTALLATION ENTITIES:**

It is a requirement of the tender that the successful bidder shall be or shall employ a qualified plumber who has extensive experience in the installation of hot water cylinders - "Geysers". Each tenderer must be, or must employ a PIRB licensed plumber as a responsible person in control of all the installations and who will issue a COC. Preference will be given to tenderers who have had experience in the installation of Solar Water Heaters. Tenderers who have competencies in terms of solar water installations must submit proof of detail with their tender bids

### **SKILLS DEVELOPMENT REQUIREMENTS:**

It will be required of all successful tenderers to embark on a formal skills development process as part of this project. It is required that a target of a minimum of 20% of the workforce be formally employed as apprentices to be allowed the possibility to progress to plumber level. Details of such a program must be submitted with the tender.

### **NUMBER OF INSTALLATION TEAMS:**

Tenderers must indicate the number of installation teams available immediately and also indicate the names of at least 50% of the proposed qualified staff members that are available immediately. This list must include the previous experience of each member as well as the positions of Apprentices as per the aforementioned requirement.

## **INFORMATION REQUIRED BY TENDERERS:**

All successful entities will be

- Briefed by the successful suppliers of SWH on the specifics of the systems to be installed.
- Handed a list of systems that are authorised to be installed under this project.
- When required to do so, undertake a system design and prepare a quotation for each potential installation on behalf of CEFS. Such quotation will be submitted to the house owner for acceptance. This quotation will be based on the rates as per the tender schedule and the contract between CEFS and the installation entity.
- On acceptance of the quotation, the house owner is to sign the Customer Participation Agreement (Supplied by CEFS), and obtain an authorisation number from CEFS prior to commencement of the installation.
- Required to arrange with the house owner for when the installation will commence.
- Submit an invoice for the installation to CEFS for payment.
- Required to ensure that all legal requirements and SABS standards are complied with including an Electrical COC if necessary.
- Required to guarantee the workmanship for 3 years.
- Responsible for the Safety, Health and Environmental requirements as per the OHS Act.
- Responsible for the professional conduct of their staff.
- Responsible for potential and or obvious consequential damage caused during installation.

Successful bidders will be requested to comply with all statutory requirements i.e. UIF Registration, Workman Compensation Registration, Tax clearances etc. A Health and Safety plan as required in the Construction Regulations must also be completed when tendering. A Health and Safety Specification will be provided. (The Health and Safety Specification is available elsewhere on this website)

Successful bidders must further make arrangement for public liability insurance of at least R2.5 m prior to a contract being awarded to them.

A separate contract will be concluded between the successful entities and CEFS. This tender documentation will form part of such a contract.

### **TYPICAL INSTALLATIONS:**

The following typical Installations must be tendered for:

**Closed couple systems** – Systems where the collectors and the storage tanks are an integral system. It can be Evacuated Tubes that fit into the tank, or flat bed collectors integrally being part of the tank

**Thermo siphon systems** - Systems where the collector is mounted outside on the roof and the tank is mounted higher than the collector either outside on the roof or inside in the ceiling space.

**Split pumped systems** - Systems where the collector is mounted on the roof and the tank is mounted at a lower position inside the ceiling space or at a lower level somewhere else. In such a case a pump and a PV panel, to power the pump, must be included in the installation.

For all installations the following hardware is assumed to form part of the **basic installation price:**

The total length of 22 mm class 1 copper piping to be used will be 8 metres.

For tendering purposes it is assumed that the existing isolating valve can be used and is not included.

For tendering purposes, it is assumed that the existing installation has a functional pressure control valve fitted and is excluded from the installation cost. In some installations, the pressure control valve will however have to be installed. In such cases, it will be considered as an extra and is priced separately in the schedule of prices

The following fittings and valves could typically be needed and the supply and fitting thereof must be included in the basic tendered price:

- 2 X 22mm copper female straits

- 2X 22mm copper T- pieces
- 2 X 22mmm Vacuum control valves
- 3m of 2.5 mm<sup>2</sup> copper 2 core plus earth surfix cable
- Installation bolts as needed
- Pipe saddles as needed
- Outdoor pipe insulation as needed

The existing electrical supply must be extended to the new solar water heater. Where there is no electrical isolator installed as required by SANS 10242 this will have to be included and is priced separately in the schedule of prices. The connection of the electrical back-up element of the new solar water heater to the ripple control device at each household will also be included in this price.

For all indirect pumped split systems the installation of a  $\Delta T$  controller, as well as the pump and a 10W PV panel must be included in the basic price for the installation of the system (this excludes the supply of the equipment however a controller must be priced in the schedule of prices attached). In the event of using a Geyser Management system, the  $\Delta T$  controller will be incorporated in the functionality of the system and will be priced separately in the schedule of prices.

Where an Electrical COC is required this will be included in the basic price.

During the design and quotation phase the condition of the existing tank must be assessed for possible re-use. If it can be established that the tank is not older than 3 years or is of such superior construction, being made of copper or stainless steel, that could be expected to last for another 10 years, the existing tank can be re-used for the solar installation. The cost to remove and destroy the old tank, or just disconnect the tank, must be included in the tender price

Each system will be supplied with the required installation brackets which might have to be modified to ensure the optimum installation in terms of orientation relation to the incoming direct solar radiation.

The following extra items will **not form part of the basic price** for installations and will be priced separately as they might be needed in some installations. This will be motivated and measured on a case by case basis:

- Price for 22mm copper pipe and installation thereof ( per metre)
- Price for typically used copper pipe fittings and installation thereof (each)
- Price per hour of labour per category of worker.
- The supply and fitting of a pressure regulator if needed
- The supply and fitting of a drip tray.
- The supply and fitting an isolation valve
- Possible travel outside NMBM boundaries
- The supply and fitting of an electrical isolator
- The supply and fitting of a electrical timer

### **SUNDRY REQUIREMENTS:**

Any additional materials or equipment used in the installation not covered by this specification will have to be pre-authorized by CEFS. In such cases the successful tenderer will be reimbursed by CEFS at the actual proven tender price. CEFS retains the right to supply any additional equipment needed.

The closing date is 12 noon on Friday, 14 August 2009.

Enquiries may be directed by e-mail to [tenders@cefgroup.co.za](mailto:tenders@cefgroup.co.za).

Proposals must be submitted in a sealed envelope clearly marked CEF (Pty) Ltd SWH INSTALLATIONS and be deposited in the tender box located in the CEF (Pty) Ltd offices at:

CEF House  
Block C, Upper Grayston Office Complex  
152 Ann Crescent  
Strathavon  
Sandton 2031  
JOHANNESBURG

***SCHEDULE A: DETAILS OF TENDERER***

*NAME* *of*  
*TENDERER.....*

*Type* *of*  
*Entity.....*

*Address* *of*  
*Entity.....*

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*Income* *Tax* *registration*  
*number.....*

VAT Registration  
Number.....

UIF Registration  
number.....

Details of  
Shareholders.....

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*BEE status*

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*Contact*

*Person*.....

*Telephone*

*number*.....

**SCHEDULE B: DOCUMENTS TO BE ATTACHED**

*B1 - COPIES OF ID DOCUMENTS of SHAREHOLDERS / MEMBERS. PARTNERS/ OWNER*

*B2- LIST of STAFF MEMBERS AVAILABLE IMMEDIATELY and NUMBER of TEAMS to BE EMPLOYED*

*B3 - LIST of PREVIOUS EXPERIENCE in the INSTALLATION of SOLAR WATER HEATERS and GEYSER (Please include detail of installations as well as contact person(s))*

*B4- Document AUTHORISING the SIGNATURE of THIS TENDER*

*B5- Health and Safety Plan as required by the Construction Regulations of the OHS Act*

*B6 -PROPOSED SKILLS DEVELOPMENT PLAN*

### **SCHEDULE C: PRICE SCHEDULE**

**BASIC PRICE** FOR INSTALLATION AS PER TENDER DOCUMENT Including VAT

TYPE OF SYSTEM	CLOSE COUPLED	THERMO SYPHON	INDIRECT PUMPED	
TANK CAPACITY			Using existing tank	Using new tank
150 litre	..... Add R300  Total.....	..... Add R300  Total.....	..... Add R300  Total.....	..... Add R300  Total.....
200 litre	..... Add R300  Total.....	..... Add R300  Total.....	..... Add R300  Total.....	..... Add R300  Total..... ...

250 litre	..... . Add R300  Total.....	..... . Add R300  Total.....	..... Add           R300  Total.....	..... ..... Add R300  Total..... ...
300 litre	..... . Add R300  Total.....	..... . Add R300  Total.....	..... Add           R300  Total.....	..... ..... Add R300  Total..... ...

**ADDITIONAL PRICES** FOR AS and WHEN REQUIRED to be SPECIFICALLY AUTHORISED per installation incl. VAT

ITEM	UNIT	EQUIPMENT PRICE	INSTALLATION PRICE
Drip Tray	Per unit		
22mm Class 1 copper pipe	Per metre		
22mm 400 kPA Pressure Regulator	Per unit		
22mm Copper isolating valve	Per unit		
22mm Vacuum Control Valve	Per unit		
20 A electrical isolator in box as per SANS	Per unit		

10242			
22mm copper female straits	Per unit		
22mm copper T piece	Per unit		
2.5 mm <sup>2</sup> 2 plus earth Surfex cable	Per metre		
22mm copper Elbow	Per unit		
Delta T controller	Per unit	N/A	
Labour rate per hour-plumber	Per hour	N/A	
Labour rate per hour-Semi Skilled worker	Per hour	N/A	
Labour rate per hour - General worker	Per hour	N/A	
TRAVEL RATE outside NMBM area	Per km		N/A
COC as required by PIRB	Per unit	R75.00	
GEYSER MANAGEMENT SYSTEM( Geyser wise or similar)	Per unit	R 650 .00	
Basic ΔT controller	Per unit		

I (name)..... duly authorised hereby offer the above tender for the contract as detailed in the above specification

Signature.....

Date.....

Place.....