



RFQ: Demonstration Models for the Shisa Solar Programme

Service providers are hereby requested to submit quotations for the design and construction of two (2) demonstration models for Solar Water Heaters and Heat Pumps. The demonstration models will be used in a variety of locations, both inside and outside. The demonstration models will be identical to each other.

The demonstration models for the solar water heater and heat pumps should be designed around the following specifications:

Specification	Solar Water Heaters
Size	The model should be able to fit securely on a standard trestle table. Should weight no more than 10kgs. Dimension: Front/Back (Width) – 50cm; Depth (sides) - 60cm; height – 60cm (excluding roof dimension). The roof should not be too steep, approximately 25 degrees. Each model will be separated into two sides (30cm of the depth), with a solid material.
Detail	<p>The model has to be built on a platform that can rotate, similar to the 'Lazy Susie'.</p> <p>The sides of the model should represent a house with windows and doors. The roof should be finished with miniature roof tiles. When looking into the model from the front it will be a set-up for Solar Water Heaters, when looking into the model from the rear it will be set-up for heat pumps. There needs to be a ceiling, so that people can see that the water tanks are hidden. A mock up of a house, with kitchen, bathroom, bedroom, and lounge must be set-up.</p> <p>All material used to construct the demonstration model and attachments must be of high quality and durable. The house, should be painted white, the roof should be green, accents around the windows and doors should be yellow. The water tanks should be branded with the Shisa Solar logo.</p> <p>Front: The solar water heater and all related</p>

	<p>parts (heat collectors, tanks, etc) must be able to be movable. On the roof there should be two places at a lower height and a higher height (close to the apex of the roof) where the Solar water heater can be attached easily (and unattached). The attachments that are needed are:</p> <ol style="list-style-type: none"> 1. Direct Evacuated tube SWH, 2. Direct Flat Panel SWH, 3. Indirect flat panel SWH (with a water tank that can be attached inside the house in the ceiling), 4. Indirect flat panel SWH (with a water tank that can be attached inside the house in the ceiling and the water pump if the tank is lower than the heat collector). <p>All the dimensions of the attachments need to be in proportion to the size of the house, and clearly indicate the detail of SWHs. In addition, water pipes are required from the SWHs (and collectors to the tanks in the ceiling) to the bathroom and kitchen). Three different water tank size: 100L, 200L, 300L, and proportional heat collector sizes; are required.</p> <p>Back: The heat pump and all related parts must be able to be movable. All the dimensions of the attachments need to be in proportion to the size of the house, and clearly indicate the detail of heat pumps. In addition, water pipes are required from the heat to the bathroom and kitchen).</p>
Interactivity	The attachments, as mentioned above, should be easily taken off and re-attached. This will allow our team to easily explain the different SWH systems.
Mobility	The entire model should weight no more than 10 kgs and designed to be structurally sound, so as not to collapse during transit.
Protective cover	A protective cover is needed for the transportation and storage of the model.
Other	A small battery (AA size) powered LED light should be positioned in the ceiling and the rooms of the model, both at the front and the back. The battery pack should be hidden. It is imperative that the model be constructed on a platform that can rotate, so that when a person is standing at the front of the table, the model

	<p>can be easily turn to view the other side. In addition, a safety catch is needed to ensure that the model doesn't turn easily or accidentally.</p> <p>At the base/bottom of the house, the website address (www.shisasolar.org.za) should be written/printed in black lettering, with the Shisa Solar Logo in a prominent position on both sides of the model. For the open parts of the front and back of the model, there should be two pieces of the model that should be opened to the sides, with a latch to keep the doors closed or opened. When the doors are closed, the outside should resemble a house, with windows, doors, etc. When the doors are open, there should be printing on the inside off the doors, that will be in front of the website address (and Logo), so that the printing on the sides of the house are not blocked off.</p>

A more comprehensive call for quotation can be requested from morgand@durban.gov.za
Quotations must be submitted electronically (preferably) or by post to:

Derek Morgan

E-mail: morgand@durban.gov.za

3rd Floor Florence Mkhize Building

251 Anton Lembede Street, Durban

Tel: 031 311 11 39

E-mail: morgand@durban.gov.za

By 11:00am on Thursday, the 4th November 2011, to whom all enquiries concerning this invitation to quote should be addressed.