

REQUEST FOR PROPOSALS

SUPPLY OF ELECTRIC PRESSURE COOKERS (EPCS)
RFQ/CORPREG/CB/SCM/0001/22



1. Umeme Limited is Uganda's main electricity distribution Company listed on the Uganda Securities Exchange and the Nairobi Securities Exchange. The Company operates a 20-year Electricity Distribution Concession effective 1st March 2005, from the Government of Uganda.
2. Uganda's installed generation capacity now stands at 1,401 MW, according to data from the Electricity Regulatory Authority. However, 95% of Ugandan households rely on charcoal, wood, or other forms of biomass for their household cooking needs. Controlled cooking tests conducted by The Centre for Research in Energy and Energy Conservation (CREEC) and MECS in Uganda have shown that EPCs can reduce cooking fuel costs by up to 50% compared to charcoal and can be used to cook 80% of the typical Ugandan menu.
3. The enabling environment for electric cooking in Uganda is strengthening, with EPCs promoted in the recent Ministry of Energy and Mineral Development (MEMD) Draft National Energy Policy, the introduction of a cooking tariff, and the current development of a National E-Cooking Strategy.
4. Umeme and key partners including Modern Energy Cooking Services (MECS), are conducting an EPC pilot project which will involve the purchase and distribution of 1,500 Electric Pressure Cookers to households (1,350 of these will be 6 litres and 150 will be 10 litres).
5. The Electric Pressure Cooker (EPC) Samples from interested suppliers will undergo testing at the Centre for Research in Energy and Energy Conservation (CREEC) against technical specifications that can be obtained from the Umeme Website (www.umeme.co.ug) or sending an email request to procurementbids@umeme.co.ug before commercial bids can be concluded.
6. Umeme Limited invites eligible suppliers with the requisite experience and capabilities to submit samples of both 6 and 10 litre EPCs alongside sealed commercial Bids in response to this RFP.
7. Submissions must be delivered to the address below at or before **4:00pm 21st March 2023** to the attention of: Head of Supply Chain, Umeme Limited, **3rd Street Industrial Area, Lugogo, P.O Box 23841, Kampala, Uganda, Tel: +256 312 360 600, Email: procurementbids@umeme.co.ug.**

The Advert is available at the entity's website at www.umeme.co.ug.

Management



MECS
Modern Energy
Cooking Services






DOCUMENT	UMEME SPECIFICATION FOR MODERN ENERGY COOKING SERVICES (PILOT) - 2023		 UMEME
DOC NO:	UMEME/QA/TS_ MECS-001	REV No. 01	
TITLE	TECHNICAL SPECIFICATION FOR ELECTRIC PRESSURE COOKER		
APPLICABLE STANDARD:	IEC 60335-1, IEC 60335-2-15		
DATE:	Feb, 2023		

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1.0 FOREW ORD

- 1.1 This specification has been prepared by Modern Energy Cooking services and Centre for Research in Energy and Energy Conservation (CREEC), in conjunction with the Quality Assurance Section of Umeme Network Assets Department and it lays down the minimum requirements for the Electric Pressure Cooker (EPC).
- 1.2 It is intended for use by Umeme Limited in the procurement of the same. This specification does not include provision for contract and shall be reviewed as and when necessary.
- 1.3 The manufacturer / Supplier shall submit information which confirms satisfactory service experience with the items under the scope of this specification.

2.0 SCOPE

- 2.1 This specification stipulates the minimum requirements for the Electric Pressure Cooker to be inspected, tested, and supplied. It also states the minimum required documentations to be submitted by the manufacturer / supplier for tender evaluation.
- 2.2 This specification gives full responsibility to the manufacturer / Supplier in adhering to this specification, applicable standards, and regulations, and ensuring that the EPC supplied is safe and compliant to good engineering practices and workmanship.

3.0 SYSTEM PARAMETERS

- 3.1 Table: 1

1	Nominal Voltage	240 Volts
2	System highest voltage	250Volts

3	System frequency	50 Hz
4	Number of phases	01
5	Method of earthing	Solidly earthed

4.0 SERVICE CONDITIONS

4.1 The Electric Pressure Cooker to be supplied shall be suitable for satisfactory continuous use/ operation under the below stated conditions.

4.2 Table: 2

1	Maximum ambient temperature	45°C
2	Minimum temperature of air in shed	9°C
3	Average ambient temperature of	+32°C
4	Maximum Relative Humidity	98%
5	Environmental conditions	Humid tropical climate with heavily polluted atmosphere
6	Operational altitude	2500 M Above Sea Level

5.0 APPLICABLE STANDARDS

5.1 IEC 60335-1:2020 Household and similar electrical appliances – Safety – Part 1: General requirements.

5.2 IEC 60335-2-15:2012 Household and similar electrical appliances – Safety – Part 2–15: Particular requirements for appliances for heating liquids.

6.0 UNIT OF MEASUREMENT AND LANGUAGE

6.1 In all correspondence, in all technical schedules and on all reports, the metric units of measurement shall be used. Where other units have been used, the equivalent metric measurements shall be added.

6.2 All documents, correspondence, reports, and schedules shall be in English language.

7.0 REQUIREMENTS

7.1 General

7.1.1 The electric pressure cooker shall be made from good quality food grade stainless steel or aluminum and shall have a slightly concave base.

7.1.2 The electric pressure cooker shall be designed for use on AC voltage between 200–240V. The Electric Pressure Cooker (EPC) shall have the following key features;

- Pressure release valve
- Locking pin for lid
- Thermal fuse
- Secondary pressure relief valve (Preferred but not Essential)
- Temperature sensor
- Pressure sensor
- Pressurizing seal
- Insulation
- Interface
- Hot plate

7.1.3 The electric pressure cooker shall be designed to allow cooking in both open and closed modes.

7.1.4 The electric pressure cooker design shall incorporate an auto-warm function to keep the food warm.

7.1.5 The electric pressure cooker shall have a non-removable rating plate with details as in clause 8.1.

7.1.6 The electric pressure cooker capacity shall comply to the below stated power rating ranges. The rated power consumption shall not deviate by more than 5%.

Capacity (liters)	6	8 to 12
Rated power (W)	800-1200	1000-1400

7.1.7 The Package of every electric pressure cooker shall include the following items.

- 1 x Aluminum non-stick coated or Stainless-Steel pan
- 1 x steam rack
- 1 x instruction manual
- 1 x power cable

7.1.8 The power cord shall be of suitable quality for the power rating. The plug shall be Type G with a properly rated protective fuse.

7.1.9 The electric pressure cooker design shall be stable when in use and unlikely to overturn when closed.

7.1.10 The electric pressure cooker shall have adequate mechanical strength to withstand rough handling that may be expected in normal use.

7.1.11 The build quality shall be sufficient for normal safety, mechanical, fire and environmental hazards. The screws and terminals of the appliance shall be able to withstand mechanical stresses occurring during normal use and during repair and maintenance.

7.1.12 Moisture Ingress: The enclosure of the appliance should provide the required degree of protection against moisture.

- 7.1.13 The external non-metallic parts, insulating materials supporting live parts and their connectors and those intended for supplementary insulation or reinforced insulation shall be made from a suitable heat resistant thermoplastic.
- 7.1.14 The internal coating, if the pot has one, shall not degrade at cooking temperatures.
- 7.1.15 The electric pressure cooker shall be offered with a one (1) year warranty provided by the manufacturer / supplier from date of purchase, with provision for replacement or repair within Uganda within one month of complaint initiation. The manufacturer / supplier shall also provide repair and maintenance parts for at least 1% of the order to support appliances from the outset, focusing on parts that most commonly fail, such as gaskets.
- 7.1.16 Each electric pressure cooker shall be provided with an instruction manual in English and or Luganda.

7.2 Safety Requirements

- 7.2.1 The appliance shall be constructed and enclosed in such a way that accidental contact with live parts while in use is impossible.
- 7.2.2 All accessible metal parts, including metal parts that may become live in the event of a basic insulation failure shall be permanently and reliably connected to an earthing terminal within the appliance to protect the user from electric shock.
- 7.2.3 The appliance shall be subjected to High Voltage tests to confirm safe operation at the rated electrical conditions.
- 7.2.4 The appliances and its surroundings should not reach excessive temperatures in normal use which can endanger the safety of the personnel and the property.
- 7.2.5 The outside temperature of the pot's skin when pressurized at 110°C for 30 mins, shall be between 40°C to 60°C.

- 7.2.6 The appliance design shall enable the temperature of the handles to remain lower than 60 degrees and preferably lower than 40°C so that the unit can still be picked up and moved if necessary.
- 7.2.7 It is preferred that the appliance is designed to have a second lid skin i.e. a whole width secondary plate that allows steam but not food to pass upwards . This is to ensure that the lid skin doesn't exceed 60°C. no second skin, and or the lid temperature exceeds 60°C, the appliance shall have a warning sticker on the lid which clearly signals "Do not touch" to the user, e.g. "CAUTION: Hot, do not touch!"
- 7.2.8 The electric pressure cooker shall be designed to automatically shut off the power supply when the inner pot is not inserted.

7.3 Pressure and Operational Safety features

- 7.3.1 The electric pressure cooker shall be designed to have a locking pin for the lid. During cooking when the lid is closed, as pressure in the electric pressure cooker increases it will push a small pin upwards to prevent the lid from being turned and unlocked. The lid will only be opened when the pressure inside the pressure cooker returns to atmospheric pressure. The underside of the pin shall have a cover to prevent blockage by pieces of food and it shall be well made and an easy fit.
- 7.3.2 The electric pressure cooker shall be designed to have a pressure release valve on/in the lid both for safety measures and to release pressure at the end of the cooking if needed. If the pressure in the cooker exceeds its design value, the valve will automatically release steam to lower the pressure.
- 7.3.3 The electric pressure cooker shall be designed to have a thermal fuse which automatically cut off the power supply when the temperature is too high. The thermal fuse is generally near or next to the electrical components at the base of the electric pressure cooker.
- 7.3.4 It is preferred to have a secondary pressure relief valve at the base of the unit.

- 7.3.5 The electric pressure cooker shall be designed to have a temperature sensor. The sensor shall be able to switch off the unit when it reaches high temperature. The sensor cut off temperature shall not be set too low to prevent open lid frying/ cooking.
- 7.3.6 The electric pressure cooker shall be designed to have a pressure sensor. The sensor shall switch off the unit when the pressure reaches cooking pressure. For this switch to work, the base of the unit has to be sturdy since it is the 'push' of the pressurized pot against the base and the lid that triggers the switch.
- 7.3.7 The electric pressure cooker shall be designed to have a pressurizing silicon seal that fits neatly onto the top of the pot when the lid is closed.
- 7.3.8 The Electric pressure cooker lid shall be designed to lock securely before being able to use the pressure features. The electric pressure cooker should have a lid which requires a 15 to 20 degree turn to lock it into place.

7.4 Minimum Viable Performance Requirements.

- 7.4.1 As a minimal performance requirement, the electric pressure cooker should be able to cook the five key Ugandan recipes: Beef Stew, Bean Stew, Matooke (steamed), Sukuma Wiki and Posho. Therefore, as part of the prequalification process, the electric pressure cookers will be tested by cooking each of the five dishes as specified according to recipes in the Ugandan eCookbook. Minimal viable performance will be assessed qualitatively by testing whether the dishes are easy enough and fast enough to cook in the EPC.

8.0 MARKING

- 8.1 The following details shall be marked legibly and indelibly on the electric pressure cooker rating plate in English and or Luganda and securely attached on to the pot or otherwise;

- Product details
 - Manufacturer's Name/ Trademark.
 - Country of Origin.

- Type/ Model.
- Reference Standards
- Manufacturer's Serial Number
- Year of Manufacture
- Voltage Rating (V)
- Rated Frequency (Hz)
- Rated Power (W)
- Capacity (Liters)
- Gross Weight (Kg)

8.2 The front panel of the electric pressure cooker shall display information in English or Luganda that enables easy usage of the device, including:

- Cooking Guide – buttons for operation of the device
- Easy to touch control panel with preset functions – functions which enable cooking of specific dishes, if the appliance is not the dial type electric pressure cooker

9.0 QUALITY MANAGEMENT SYSTEM

9.1 The manufacturer / supplier shall submit a Quality Assurance Plan (QAP) that will be used to ensure that the design, material, workmanship, tests, service capability, and documentation fulfil the requirements stated in the contract documents, standards, specifications, and regulations. The QAP shall be based on and include relevant parts to fulfil the requirements of ISO 9001:2015.

9.2 The Manufacturer's Declaration of Conformity to applicable standards and copies of quality management certifications including copy of valid and relevant ISO 9001: 2015 certificate shall be submitted with the tender for evaluation.

10.0 ADDITIONAL REQUIREMENTS

10.1 Documentation

10.1.1 The bidder shall submit its tender complete with the following technical documents (all in English language) for tender evaluation:

- ❖ Copies of the manufacturer's catalogues, brochures, drawings, and technical data,
- ❖ Details of manufacturer's /Supplier's capacity and the manufacturer's / Supplier's experience,
- ❖ Copies of required type test certificates/ reports by a third-party testing laboratory accredited to ISO/IEC 17025,
- ❖ Copy of accreditation certificate to ISO/IEC 17025 for the third-party testing laboratory,
- ❖ Manufacturer's warranty and guarantee,
- ❖ Manufacturer's letter of authorization, copy of the manufacturer's ISO 9001:2008 or 2015 certificate, ISO 17025 (2005) certificate for non-manufacturer's,

10.2 Packing

10.2.1 The packing shall be of sufficient strength to withstand rough handling during transit and storage.

10.2.2 Suitable cushioning, protective padding, or dunnage or spacers shall be provided where necessary to prevent damage or deformation during transit and handling.

10.2.3 All packing cases shall be marked legibly and correctly to ensure safe arrival at their destination.

10.2.4 The bidder shall provide handling and storage instructions and or precautions

10.3 Guarantee and Warranty

10.3.1 The Supplier / Manufacturer of the electric pressure cooker shall guarantee overall satisfactory performance of the units and provide a warranty for a period of not less than 1 year from the date of supply.

11.0 ANNEXURE

11.1 Annex A: Guaranteed Technical Particulars

11.1.1 Electric Pressure Cooker.

S/n	PARTICULARS	Units	UMEME'S REQUIREMENTS	BIDDER'S OFFER
1	Bidder/ Supplier	N/A	State	
2	Manufacturer	N/A	State	
3	Country of Manufacture	N/A	State	
4	Reference Standards	N/A	List	
5	Compliance to Service Conditions	N/A	State	
6	EPC Design Material(s)	N/A	List	
7	EPC Insulation Material	N/A		
8	AC Voltage Range	V	200- 240	
9	Frequency	Hz	50	
10	Capacity	Liters	State	
11	Rated Power	W	State	
12	Plug Type		G	
13	Cooking Modes		Open and closed	
14	Auto-Warm Function		Provide	
15	Rating Plate Details		Provide	
16	Accompanying accessories		List	
17	Key Features	N/A	List	
18	Type of Packing	N/A	Specify	
19	Approx. Weight	N/A	State	
20	Dimensional Drawings	N/A	Provide	
21	Details of Relevant Documentations	N/A	Provide	
22	Statement of Compliance to this Specification	N/A	Provide	

11.2 Annex C: Non-Compliance Schedule

11.2.1 The bidder shall provide on this schedule a list of non-compliances with this technical specification, giving the effects that such non-compliance is likely to have on the item's self-life and performance characteristics. An international standard which supports such non-compliance shall be stated and 3 English copies of it provided for evaluation purpose.

11.2.2 Each non-compliance shall refer to the relevant specification clause.

Clause No	Supporting Standard	Non- Compliance

-END-