CLARIFICATION

Updated: 2025-06-25

1. Confirmation of any local content requirement:

   This is not a requirement anymore. Please utilise the GOALS in the tender document.

2. Request for extension of closing date to 07 July 2025.
   Kindly note, the extension has been noted by the Bid Committee. The new date is 04 July 2025.
   Kindly download the letter of extension from the system.

3. Please provide the insulation levels of the high voltage and low voltage neutral points.

   Clause 3.2.3 Insulation

   Table 3 - Minimum values of impulse and dielectric tests

Nominal voltage (kV)	Lightning impulse voltage (kV peak)		a.c. induced voltage (kV r.m.s.)	a.c. applied voltage (kV r.m.s.)
	Line terminal	Neutral terminal		
11	95	95	22	28
22	150	150	44	50
33	200	200	66	70
132	550	110	230	38 (neutral)
275	1 050	110	460	38

4. Please confirm whether the insulation class of the high-voltage winding has been modified to Graded.
   eTE: As per specification.

5. The high-voltage winding voltage is 132 kV. It is recommended that the winding type be changed to disc, and the voltage regulating winding type to layer. Please confirm.
   eTE: As per specification.

6.

2.12	**Positive phase sequence impedance at 75°C and rated frequency, phase to neutral, viewed from HV**

   Please confirm whether to modify it according to recommended values.

   eTE: As per specification.

7.

3.3	**Winding 3**	**Regulating (TAP)**
	a) Type	multi-layer helix
3.2	**Winding 2**	**Primary (HV)**
	a) Type	multi-layer helix

   Please confirm.

   eTE: As per specification.

8.

3.2.2 Materials

All winding conductors shall be pure copper in accordance with IEC 60028. Use of aluminium conductors is not permitted. Continuously Transposed Conductors (CTC) shall be free from inter-strand shorts after the winding has been completed. The shear or tear strength of the bond and base of enamel/ epoxy shall not be less than 40% of the room temperature strength when heated to 125°C after curing. This requirement excludes the tertiary windings of the auto transformers made from non-CTC conductors, and there non-enamelled conductor can be used.

Please confirm.

eTE: As per specification.

9.

3.710.3 Coating of Interior Surfaces

The interior surfaces of the transformer tank, cover and conservator shall be clean and dry immediately prior to filling the transformer with oil. Interior surfaces above a line that lies at least 50 mm below the oil level shall be corrosion-protected by varnishing, priming or painting, using materials that are not affected by, or will not adversely affect the electrical or chemical properties of the insulating oil. It is preferable that the interior of the tank and the underside of the lid to be painted white, to facilitate working inside the tank should this be necessary. The choice of paint colour for the inside of the pipework, radiators and similar equipment can be made by the supplier.

Please confirm the modification.

eTE: As per specification.

10.

132/33 kV, 50 MVA Type 2 power transformer	Ohmic impedance Power Transformer with 30/50 MVA ONAN/ONAF rating, separate free standing radiator bank, 16 step tap-changer, 132 kV oil cable boxes and 33 kV plug-in connections (as described in this tender document)

This contradicts 2.9 of section 3(a) on the specification. Kindly clarify.

Ohmic impedance Power Transformer with 30/50 MVA ONAN rating, separate free standing radiator bank, 16 step tap-changer, 132 kV oil cable boxes and 33 kV plug-in connections (as described in this tender document)

11.

132/33 kV, 50 MVA Type 4 power transformer	IEC impedance Power Transformer with 30/50 MVA ONAN/ONAF rating, separate free standing radiator bank, 16 step tap-changer, 132 kV oil cable boxes and 33 kV plug-in connections (as described in this tender document)

This contradicts 2.9 of section 3(a) on the specification. Kindly clarify.

IEC impedance Power Transformer with 30/50 MVA ONAN rating, separate free standing radiator bank, 16 step tap-changer, 132 kV oil cable boxes and 33 kV plug-in connections (as described in this tender document)

12.

33/11 kV, 25 MVA Type 2 power transformer	Power Transformer with 25 MVA ONAN rating, separate free standing radiator bank, 16 step tap-changer, 33 kV RIP air bushings and 11 kV plug- in connections (as described in this tender document)

This contradicts 5.0 of section 3(b) on the specification. Kindly clarify.

eTE: As per specification.

13. We understand we are required to complete the tender document either electronically or manually but some of the sections on the BOQ have shifted and not very clear, we would appreciate a revised BOQ in the tender document

Noted: I have not seen the document which was loaded into the system. The amended BOQ will have to be issued via the Committee. Please note, there will be no amendment in terms of the original line items and quantities.

14. Can we deviate from the proposed payment terms?

The tender document is as issued on the date of advert…terms and conditions cannot be altered.

15. Can we deviate from the proposed delay damages?

The tender document is as issued on the date of advert…terms and conditions cannot be altered.

16.

C2.1.21 Address for Springfield Depot (within a 35 km radius):
Springfield Depot
11 Electron Road,
Springfield,
Durban,
4051

Our transformers shall be delivered to various sites within a 35 km radius. The exact location per order shall be specified during order stage.

17. Do we need to bid for the full scope or can we bid for the certain sizes?

This contract is for the supply, delivery, installation and testing of 275/132 kV, 132/33 kV, 132/11 kV and 33/11 kV power transformers and associated equipment for a fixed period of 36 months.

Up to three contractors will be appointed for the following transformers:
a) 275/132 kV transformers;
b) 132/11 kV transformers (all types); and
c) 132/33 kV and 33/11 kV (all types).

These three categories of transformers will be evaluated and awarded individually.

18. Kindly give an indication of the yearly forecast.

Kindly note: the following are the estimated orders, we may prioritise the order based on the urgency of that specific project as and when required.

	Substation Name	275/132 kV 315MVA	132/11 kV 30 MVA	Year 1	Year 2	Year 3
1	Ottawa: **HV025TR**	1		✓		
2	Woodlands: **HV041TR**		2		✓	
3	Austerville		4	✓		
4	Waterfall		3			✓
5	Kingsburgh: **HV050TR**		2	✓		
6	Alice St: **HV108TR**		2		✓	
7	Klaarwater: **HV018TR**	1				✓
8	Phoenix Industrial		1	✓		
9	Jameson Park		2		✓	
10	Mahogany Ridge: **HV022TR**		4		✓	
11	Kloof: **HV019TR**		2		✓	
12	Mbongintwini		2		✓	
13	Reservoir Hills		2		✓	
14	Springfield: **HV030TR**		2			✓
15	Toyota		2			✓
16	Mariannridge		1	✓		
17	Newlands		1		✓	

19. What are the applicable Incoterms?
Kindly refer to the tender document for all terms of payment.

20. Are the payment terms 30, 60 or 90 days?
30 days

21. Please be so kind and forward us the excel version of the BOQ, we are trying to align all parties to start this tender.

The Electronic BOQ will be supplied to everybody. Please note: this does not supersede the original BOQ in the tender document. You must complete the Original BOQ by hand and return it with your tender. Please check correctness of the formulas in the excel copy. EThekwini Electricity will not be responsible for any errors made. This is only provided to assist you in completing your tender.

22. Pls confirm the fan shall be belowed side or bettom? As former order expierence, the bottem below was applicable for the fan, pls help check.
Please refer to the following clause:

6.2 Fans

The radiator cooling fans shall be vertical mounted (and not horizontal).

Fan blades and fan ducting shall be of aluminium alloy, stainless steel or other corrosion-resistant material, to the approval of the Engineer, and shall be designed to keep noise and vibration to a minimum. All fans shall be provided with galvanised wire-mesh guards, both on inlet and outlet sides, and shall be painted.

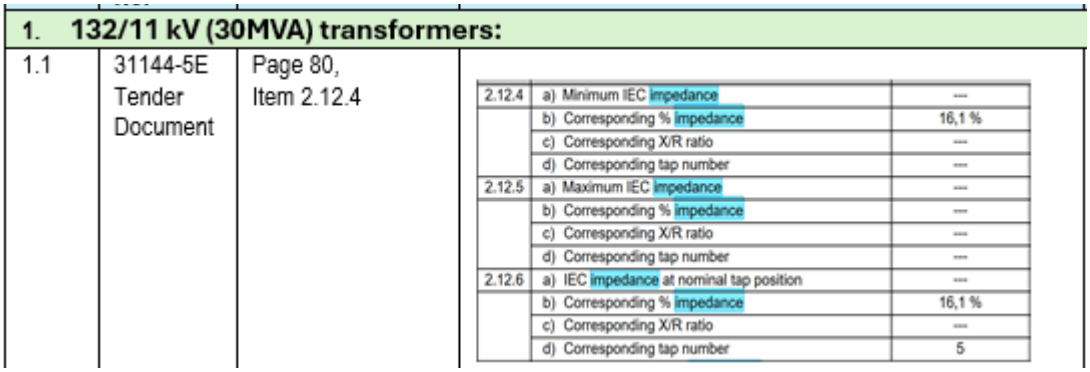
23.

6.2 Protection Current Transformers for 132/33 kV, 132/11 kV and 33/11 kV Power Transformers

Pls check which items shall be applicable for 30 MVA transformer? The rightest column is hidden that is not showed, pls provide the needed value.

This occurred during the conversion from Ms Word to pdf when the document was being uploaded onto the website. The addendum with a clear schedule will be made available.

24. Please confirm if the minimum impedance value is correct



1. 132/11 kV (30MVA) transformers:			
1.1	31144-5E Tender Document	Page 80, Item 2.12.4	

2.12.4	a) Minimum IEC impedance	---
	b) Corresponding % impedance	16,1 %
	c) Corresponding X/R ratio	---
	d) Corresponding tap number	---
2.12.5	a) Maximum IEC impedance	---
	b) Corresponding % impedance	---
	c) Corresponding X/R ratio	---
	d) Corresponding tap number	---
2.12.6	a) IEC impedance at nominal tap position	---
	b) Corresponding % impedance	16,1 %
	c) Corresponding X/R ratio	---
	d) Corresponding tap number	5

Item 2.12.4 (b) has a typo error: this is supposed to be nil i.e. "---". The OEM will provide the corresponding impedance value

25. We're currently facing some challenges with the mechanical design, and we need to clearly understand which bushings are being requested, as well as the associated impedances. It is essential that we receive a clear specification including the following information:

- Insulation level
- Impedance
- TAP range
- Required bushings
- Connection group

Additionally, regarding the radiator banks, we also need to confirm the distance between them at the time of installation.

The tender document includes the schedule on the guarantees of equipment and the technical specification.