



Technical evaluation criteria for re-drumming  
of ACSR conductor for Ariadne-Eros 2 400 kV  
line

Transmission

Title:	<b>Technical evaluation criteria for re- drumming of ACSR conductor for Ariadne-Eros 2 400 kV line</b>	Unique Identifier:	<b>240-68108065</b>
		Alternative Reference Number:	<b>LES1732</b>
		Area of Applicability:	<b>Engineering</b>
		Documentation Type:	<b>Report</b>
		Revision:	<b>1</b>
		Total Pages:	<b>10</b>
		Next Review Date:	<b>N/A</b>
		Disclosure Classification:	<b>CONTROLLED DISCLOSURE</b>

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### Revision Control

Lines Engineering document no.	Revision no.	Date
LES1732	1	March 2023

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## 1. INTRODUCTION

This document contains the technical evaluation criteria for the re-drumming of approximately 372 drums of ACSR conductor type IEC 315. These drums are damaged and vary in severity from flange damage to barrel damage (See Annexure A for photos of various states of degradation of drums). The IEC 315 conductor has the following properties;

Conductor diameter	=	23.9 mm
Conductor mass	=	1.04 kg/m
Conductor UTS	=	79.03 kN
Conductor stranding	=	45/7
Average drum mass	=	3.5 ton

## 2. SCOPE

The scope of service required covers the re-drumming of the IEC 315 conductor from the damaged drums onto new drums. All equipment and personell required for this operation should be provided by the supplier of the services. The supplier will also need to supply the new drums where the conductor will be wound onto. Re-drumming will need to be conducted at the Eskom site camp at Howick in Kwazulu Natal.

## 3. PURPOSE


The purpose of this document is to explain the technical evaluation criteria that will be used to evaluate prospective suppliers of this re-drumming activity.

## 4. DEFINITIONS

Definition	Description
<b>Re-drumming</b>	The activity of wounding an ACSR conductor from a damaged drum onto a new drum after which the conductor with new drum will be suitable for stringing purposes.
<b>Supplier</b>	The prospective entity, company or person that will render the service to Eskom for re-drumming.

## 5. ABBREVIATIONS/ACRONYMS

LES	Line Engineering Services
PPE	Personal Protective Equipment


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## 6. TENDER TECHNICAL EVALUATION CRITERIA

The technical evaluation will be conducted in two phases. First a desktop evaluation and second a practical evaluation. Only suppliers that pass the desktop evaluation will be allowed to continue with the practical evaluation. The pass rate for both phases will be 70%

## 7. COMPULSARY SITE VISIT

A compulsory site visit will be arranged in order to provide an opportunity to prospective service providers to familiarise themselves with the position of the site camp, the condition of the drums, the logistics and services available etc.


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## 8. DESKTOP EVALUATION CRITERIA (PHASE 1)

Submissions that obtain a minimum pass mark of 70% for the Desktop Evaluation (**Error! Reference source not found.**) shall proceed to the Practical Evaluation. Each item will be assigned a score by the Eskom evaluation team based upon the tendered response and cross-checked with the supporting documents provided.

**Table 1: Desktop Evaluation Scoring (Phase 1)**

No.	Section	Section Weight	Sub-section	Point Score Attained	Max. Point Score Obtainable (with weight factor applied)	Final Score (%)
1	Previous re-drumming contracts completed successfully	60%	No previous re-drumming completed	0	0	0
			At least one drum re-drumming completed	1	0.6	12
			More than 1 but less than 20 drums re-drumming completed	2	1.2	24
			More than 20 drums re-drumming completed	5	3	60
2	Provide method statement for damaged drum kept in horizontal position.	20%	MS provided	5	1	20
			MS not provided	0	0	0
3	Provide method statement for damaged drum kept in vertical position.	20%	MS provided	5	1	20
			MS not provided	0	0	0
		100%	Max Possible Point Score		5	


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## 9. PRACTICAL EVALUATION (PHASE 2)

A threshold of 70% is required for the tenderer to pass the two practical demonstration evaluations. Two drums will need to be re-drummed as part of this evaluation, one with the damaged drum barrel in the horizontal position and one with the damaged drum barrel in the vertical direction. Samples of damaged drums from site will be made available to the suppliers that passed the phase 1 (desktop evaluation). Details of the practical evaluation criteria can be seen in Table 2 and 3.

**Table 2: Practical Evaluation Scoring (Phase 2) – Drum barrel horizontal**


No.	Section	Section Weight	Sub-section	Point Score Attained	Max. Point Score Obtainable (with weight factor applied)	Final Score (%)
4	Is equipment mobile - can be used in site camp	20%	Equipment not fixed but mobile	5	1	20
				0	0	0
5	Is tension control exercised	15%	Tension between "puller" and new drum can be controlled Conductor does not touch ground and get damaged	5	0.75	15
				0	0	0
6	Is care taken to prevent damage to conductor	15%	"Puller", old drum and new drum aligned and schafing of conductor onto flanges or other parts does not occur	5	0.75	15
				0	0	0
7	New drum conform to specifications	10%	New drum size in accordance with 240-152844641 Rev.3	5	0.5	10
				0	0	0
8	Is the cable length recorded	10%	Measurement of conductor onto new drum must be measureable to accuracy of $\pm 1$ m.	5	0.5	10
				0	0	0
9	Adherence to submitted method statement during Phase 1 evaluation	15%	Is procedure followed as per submitted SWP	5	0.75	15
				0	0	0
10	Adherence to safety	5%	Use of correct size equipment, PPE etc.	5	0.25	5
				0	0	0
11	Correcting marking of new drum	10%	Correct marking of new drum in accordance with 240-152844641 Rev.3 Type of conductor, length etc on non fading	5	0.5	10
				0	0	0
		100%	<b>Max Possible Point Score</b>		<b>5</b>	<b>100</b>

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**Table 3: Practical Evaluation Scoring (Phase 2) – Drum barrel vertical**

No.	Section	Section Weight	Sub-section	Point Score Attained	Max. Point Score Obtainable (with weight factor applied)	Final Score (%)
12	Is equipment mobile - can be used in site camp	20%	Equipment not fixed but mobile	5	1	20
				0	0	0
13	Is tension control exercised	15%	Tension between "puller" and new drum can be controlled Conductor does not touch ground and get damaged	5	0.75	15
				0	0	0
14	Is care taken to prevent damage to conductor	15%	"Puller", old drum and new drum aligned and schafing of conductor onto flanges or other parts does not occur	5	0.75	15
				0	0	0
15	New drum conform to specifications	10%	New drum size in accordance with 240-152844641 Rev.3	5	0.5	10
				0	0	0
16	Is the cable length recorded	10%	Measurement of conductor onto new drum must be measureable to accuracy of $\pm 1$ m.	5	0.5	10
				0	0	0
17	Adherence to submitted method statement during Phase 1 evaluation	15%	Is procedure followed as per submitted SWP	5	0.75	15
				0	0	0
18	Adherence to safety	5%	Use of correct size equipment, PPE etc.	5	0.25	5
				0	0	0
19	Correcting marking of new drum	10%	Correct marking of new drum in accordance with 240-152844641 Rev.3 Type of conductor, length etc on non fading	5	0.5	10
				0	0	0
		100%	<b>Max Possible Point Score</b>		<b>5</b>	<b>100</b>



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## 10. SCORING METHOD

### 10.1 Phase 1

For phase 1 (desktop evaluation), evidence need to be provided to proof previous successful re-drumming contracts completed. This evidence can take the form of copy of previous contract(s), photos, written client testimonials etc and verifieable client contact details. Clear evidence need to be provided as for the number of drums that have been re-drummed in the past as it forms the basis for the desktop evaluation. Points will be awarded in accordance to Table 1 column titled "Point Score Attained" by each evaluator. The required pass rate for Table 1 is 70%.

### 10.2 Phase 2

Phase 2 (practical evaluation) will follow same format as phase 1. The required pass rate for Table 2 and Table 3 is 70% each. If any of the scores for either Table 1 or 2 is less than 70% the supplier will not qualify and no further evaluation will be conducted.

## 11. DEVELOPMENT TEAM

The following people were involved in the development of this document:

- Malibongwe Fudu
- Krish Govender
- Bertie Jacobs

## 12. ANNEXURE A

Sample photos of condition of drums from site to be rewound.

