 DISM 7/25

CHECK BEFORE SUBMISSION	YES	NO
REGISTERED ON CSD DATABASE		
LETTER - SOLE SUPPLIER if applicable.		
QUOTE/INVOICE ATTACHED		
BUDGET (SAMRAS)		
CASHFLOW		
SIGNATURES		

MEMORANDUM

DIRECTORATE: INFRASTRUCTURE SERVICES

To / Aan: **MUNICIPAL MANAGER**

From / Van: **DIRECTORATE: INFRASTRUCTURE SERVICES**

Job Title: **MANAGER – OPERATIONS & MAINTENANCE**

Date / Datum: **02 AUGUST 2024**

Re / Insake: **DEVIATION: MAIN SUBSTATION TO MARKOTTER 66Kv CABLE LOW OIL PRESSURE TRIP ON 23 JULY 2024**

1. PURPOSE

To obtain approval in terms of Supply Chain Management Policy, to deviate from the official procurement process in terms of Section 36 of the approved SCM Policy

REASON FOR DEVIATION: (Mark with x where applicable)			
1.	Emergency. "**Emergency dispensation"** means emergency as referred to in paragraph 36(1)(a)(i) of this policy under which one or more of the following is in existence that warrants an emergency dispensation;		
	a	The possibility of human injury or death;	
	b	The prevalence of human suffering or deprivation of rights;	
	c	The possibility of damage to property, or suffering and death of livestock and animals;	
	d	The interruption of essential services, including transportation and communication facilities or support services critical to the effective functioning of the municipality as a whole;	
	e	The possibility of serious damage occurring to the natural environment;	
	f	The possibility that failure to take necessary action may result in the municipality not being able to render an essential community service;	
	g	The possibility that the security of the state could be compromised; or	
	h	The prevailing situation, or imminent danger, should be of such a scale and nature that it could not readily be alleviated by interim measures, in order to allow time for the formal procurement process. Emergency dispensation shall not be granted in respect of circumstances other than those contemplated above.	
2.	Goods or services are produced or available from a single provider		
3.	Acquisition of special works of art or historical objects where specifications are difficult to compile.		
4.	Acquisition of animals for zoos and /or nature and game reserves		
5.	Exceptional case and it is impractical or impossible to follow the official procurement processes		X

2. SUBSTANTIATE WHY SCM PROCESSES COULD NOT BE FOLLOWED (TO BE REPORTED TO COUNCIL)

On the 23rd of July 2024, the Superintendent: Substations reported to the Manager: Operations & Maintenance that the 66kV feeder between Main Substation and Markotter Substation tripped as a result of low oil pressure.

The Manager: Operations & Maintenance instructed the Principal Technician: Operations & Maintenance to monitor the load on the entire 66kV network through the SCADA system, immediately. Based on the gathered information, the Superintendent: Substations was further instructed to reconfigure the network by closing the ring between Golf Substation and the University Substation to ensure network stability. The network reconfiguration was ultimately carried out on the 24th of July 2024.
A preliminary investigation was conducted immediately after the fault was reported on the 23rd of July 2024, and the oil pressure readings were taken on both oil feeder cables from the Main Substation (Main to Markotter and Main to University) and recorded by the Superintendent: Substations. It was confirmed after an investigation that the oil pressure on the cables between the Main Substation and Markotter Substation were indeed below the minimum trip set point of 2 bar, which caused the trip. Additionally, the oil pressure reading on the 66kV oil cable between the Main Substation and the University was 1.65 bar, approaching the alarm set point of 1.45 bar and the trip set point of 1.24 bar.

Based on the investigation, it was confirmed that the cause of the trip was as a result of the drop in oil pressure oil and not as a result of a cable fault. This issue can be remedied by an oil refill; however, the task requires specialized expertise and cannot be performed with internal resources. Therefore, a specialist external service provider must be urgently appointed to refill the cable oil to return it to service and also to prevent the second cable from tripping, which could compromise network redundancy (alternative supply points) and stability and could potentially result in a prolonged wide-area blackout.

3. BACKGROUND

The high-voltage network of the Stellenbosch municipality comprises of eight (8) 66/11kV substations, namely, Stellenbosch Main Intake substation, Cloetesville Intake substation, Franschhoek Intake substation. University-, Jan Marais-, Markotter substation and Golf substations which form part of the 66 kV substation ring to ensure the balanced and continuous electricity distribution to Stellenbosch Municipal supply areas as per the NERSA distribution license conditions. Main Substation is one of the critical intake substations, supplying the ring with two 350mm² Aluminium oil cables (one supplying the University substation and the other one supplying Markotter Substation) and one 800mm² PAX cable that feeds Golf Substation. On 23rd July 2024, the 66kV oil cable feeding Markotter substation tripped due to low cable pressure. Consequently, the 66kV network had to be reconfigured to maintain stability by closing a normally open point between Golf Substation and the University substation. However, the network remains vulnerable due to low oil pressure on the 66kV oil cable between Main Substation and University Substation. Losing this second feeder will compromise redundancy (alternative supply points) and network stability, leaving the 66kV network reliant on a single feeder between Main Substation and Golf substation, which is a high risk and could potentially result in a prolonged wide-area blackout.

Important to note is that the 66 kV cables in question have been exposed to potential risk as a result of the road upgrades which were required to cater for new developments in the Adam Tas area. As a result of this exposure and pending further developments in the area which will place further strain on other 66 kV oil cables, the department is initiating a procurement process to conduct a feasibility study for the replacement of these oil cables with alternative 66 kV cables.

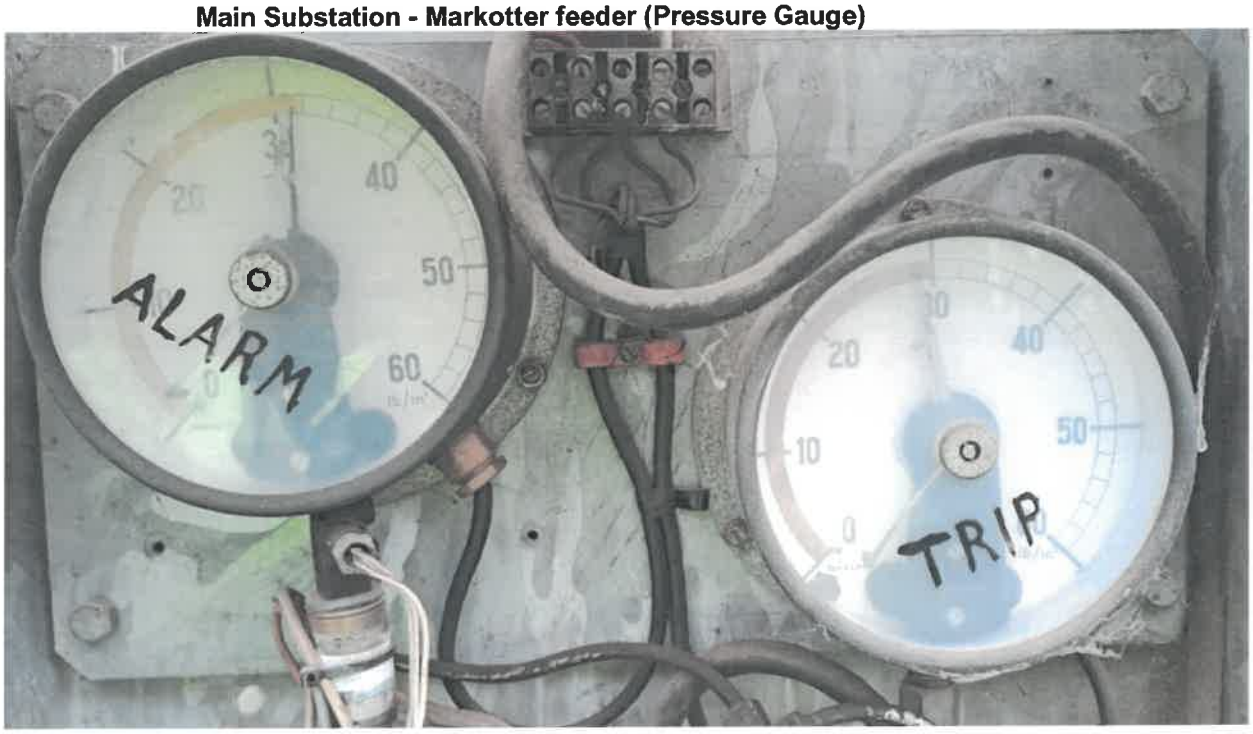
Furthermore, it should be noted that the 800mm² PAX cable from the Main substation to the Golf substation is also vulnerable due to previous flood damage at the Boord Bridge, where this cable crosses. Therefore, it is crucial to keep all three feeders from the Main substation in service to ensure continuity of supply for any unforeseen occurrences (e.g. weather damage in Boord bridge or other network disturbances).

CRITICAL IMPACT OF OIL PRESSURE TRIP AT MAIN STATION ON 23 JULY 2024

The high-voltage network of the Stellenbosch municipality comprises of eight (8) 66/11kV substations, namely, Stellenbosch Main Intake substation, Cloetesville Intake substation, Franschhoek Intake substation. University-, Jan Marais-, Markotter substation and Golf substations which form part of the 66 kV substation ring to ensure the balanced and continuous electricity distribution to Stellenbosch Municipal supply areas as per the NERSA distribution license conditions.

Specialist service provider was approached to quote on oil refill and testing of 66kV oil cables from Main Substation to Markotter Substation and Main Substation to University Substation. The 66 kV cables currently in the Stellenbosch electrical network are specialized cables, manufactured by the service provider CBI. It is important that the original equipment manufacturer conducts the repairs. This will ensure that quality repairs are performed to reduce any safety hazards and potential risk of further outages. The department has received a quotation from the service provider after which it was submitted to Supply Chain Management.

Main Substation - Markotter feeder (Pressure Gauge)



Main Substation - University feeder (Pressure Gauge)

Main Substation - Markotter feeder (Annunciator)

Main Substation - University feeder (Annunciator)

Boord bridge was damaged by previous floods and temporary repaired.

Boord Bridge

MOTIVATION FOR DEVIATION

The Municipality does not have the ability to conduct oil refill and testing of oil cables without the assistance of external specialist service providers. This requires specialized expertise.

Due to the aforementioned, the case for this deviation can thus be motivated for two reasons: 1) an **"emergency"** and/or as 5) **"exceptional case"**.

4. DISCUSSION

The high-voltage network of the Stellenbosch municipality comprises of eight (8) 66/11kV substations, namely, Stellenbosch Main Intake substation, Cloetesville Intake substation, Franschhoek Intake substation. University-, Jan Marais-, Markotter substation and Golf substations which form part of the 66 kV substation ring to ensure the balanced and continuous electricity distribution to Stellenbosch Municipal supply areas as per the NERSA distribution license conditions. Main Substation is one of the critical intake substations, supplying the ring with two 350mm² Aluminium oil cables (one supplying the University substation and the other one supplying Markotter Substation) and one 800mm² PAX cable that feeds Golf Substation. On 24 July 2024, the 66kV oil cable feeding Markotter substation tripped due to low cable pressure. Consequently, the 66kV network had to be reconfigured to maintain stability by closing a normally open point between Golf Substation and the University substation. However, the network remains vulnerable due to low oil pressure on the 66kV oil cable between Main Substation and University Substation. Losing this second feeder will compromise redundancy (alternative supply points) and network stability, leaving the 66kV network reliant on a single feeder between Main Substation and Golf substation, which is a high risk and could potentially result in a prolonged wide-area blackout.

Important to note is that the 66 kV cables in question have been exposed to potential risk as a result of the road upgrades which were required to cater for new developments in the Adam Tas area. As a result of this exposure and pending further developments in the area which will place further strain on other 66 kV oil cables, the department is initiating a procurement process to conduct a feasibility study for the replacement of these oil cables with alternative 66 kV cables.

Furthermore, it should be noted that the 800mm² PAX cable from the Main substation to the Golf substation is also vulnerable due to previous flood damage at the Boord Bridge, where this cable crosses. Therefore, it is crucial to keep all three feeders from the Main substation in service to ensure continuity of supply for any unforeseen occurrences.

On the 23rd of July 2024, the Senior Superintendent: Substations reported to the Manager: Operations & Maintenance that the 66kV feeder between Main Substation and Markotter tripped on low oil pressure.

The Manager: Operations & Maintenance instructed the Principal Technician to monitor the load on the entire 66kV network through the SCADA system. Based on the information received, the Superintendent: Substations was instructed further to reconfigure the network to ensure by closing the ring between Golf Substation and University to ensure network stability. Oil pressure reading were taken on both oil cables from Main Substation and recorded by the Senior Superintendent: Substations. It was discovered that indeed, the oil pressure gauge indication on the cable between Main Substation and Markotter was below the minimum trip set point of 2 bar which is the cause of the trip and the oil pressure reading on the 66kV oil cable between main Substation and University was 1.65 bar, approaching the alarm set point of 1.45 bar and trip set point of 1.24 bar.

CRITICAL IMPACT OF OIL PRESSURE TRIP AT MAIN STATION ON 23 JULY 2024

The high-voltage network of the Stellenbosch municipality comprises eight (8) 66/11kV substations, namely, Stellenbosch Main Intake substation, Cloetesville Intake substation, Franschhoek Intake substation. University-, Jan Marais-, Markotter- and Golf substations form part of the 66 kV substation

ring to ensure the balanced and continuous electricity distribution to Stellenbosch Municipal supply areas as per the NERSA distribution license.

Service providers have been approached to quote on oil refill and testing of 66kV oil cables from Mains Substation to Markotter and Main Substation to University Substation. The 66 kV cables currently in the Stellenbosch electrical network are specialized cables, manufactured by CBI. It is important that the manufacturer conducts the repairs since they are the original equipment manufacturer. This will reduce any safety hazards and potential risk of further outages. The department is currently awaiting the quotations from the service providers after which it will be submitted to the Supply Chain Management.

5. FINANCIAL IMPLICATIONS

It must be noted that the financial implications will be as per CBI's quotation (Annexure A). The amount of R132 810,67 (VAT excl) will made available for the Emergency repair works which will be funded from the Department: Electrical Services' U-key - Expenditure: Contracted Services: Contractors: Maintenance of Unspecified Assets 20220630078023

6. CONCLUSION

It is therefore requested that approval be given to deviate from the official procurement process in terms of Section 36 of the approved SCM Policy to meet legislative requirements, reduce the negative impacts as a result of 66kV oil cable low pressure trip substation.

7. RECOMMENDATION

It is recommended that the deviation for the appointment of a suitable specialist service provider, to refill oil cables at Main Substation as a result of low oil pressure trip and low oil indication on Main Substation to Markotter 66kV feeder as well as Main Substation to University 66kV feeder, respectively.

M. Lwana

MKUSELI LWANA
MANAGER: OPERATIONS & MAINTENANCE

DATE: 2/8/2024

NOMBULELO ZWANE
SENIOR MANAGER: ELECTRICAL SERVICES

DATE: 5/8/24

SHANE CHANDAKA
INFRASTRUCTURE SERVICES

DATE: 8/8/24

7. SUPPLY CHAIN MANAGEMENT COMMENTS:

SCM verification

8. APPROVAL:

REQUEST SUPPORTED / NOT SUPPORTED BY THE STELLENBOSCH MUNICIPAL BID ADJUDICATION COMMITTEE		
Name	Signature	Date

Comments: Supported the deviation

CHAIRPERSON ..... DATE 12/08/2024

RECOMMENDATION FROM BID ADJUDICATION COMMITTEE APPROVED BY THE ACCOUNTING OFFICER

Comments: .....

ACCOUNTING OFFICER ..... DATE 12/08/2024

Annexure A

Document No : Q24-0188 PI01 rev2
Date : 26 July 2024

Customer Ref : Stellenbosch Oil top up on 2 feeders
(University - Main Feeder & University - Markotter Feeder)
Company : Stellenbosch Municipality

Dear Greg Nimb,

RE: REQUEST FOR A QUOTATION TOP UP ON FEEDERS

CBI-electric: african cables (CBI) thank you for the opportunity to provide you with a quotation for oil top up on the above-mentioned feeders

1. Quotation Total

Stellenbosch Oil top up on 2 feeders

Description	UOM	Qty	Supply Rate	Install Rate	Total Supply	Total Install
University - Main Feeder						
University - Markotter Feeder						
Supervisor	Hrs	6	R -	R 335,75	R -	R 2 014,50
LDV	Hrs	6	R -	R 85,65	R -	R 513,90
LDV	Km	210	R -	R 6,00	R -	R 1 260,00
Oil Operator	Hrs	24	R -	R 227,25	R -	R 5 454,00
Assistant	Hrs	24	R -	R 161,69	R -	R 3 880,56
Oil plant	Hrs	24	R -	R 290,27	R -	R 6 966,48
Oil Plant	Km	210	R -	R 10,93	R -	R 2 295,30
Cable oil	Drum	4	R 24 992,00	R -	R 99 968,00	R -
P&G's						R 10 457,93
					R 99 968,00	R 32 842,67
Total Supply & Install (ex Vat)						R 132 810,67

2. Quotation Qualifications

3.1 Our quotation is based on the scope of work telephonically discussed for abovementioned feeders. Any additional scope not quoted for herein will be in addition to this quote and CBI reserves its rights to amend this quote accordingly.

3.2 Our quotation excludes any fault location and assumes that the existing oil filled circuits do not have any faults or leaks along the route. Should it not be possible to pump the circuit up to pressure, CBI will assume that there is an oil leak in the system and then will have to quote separately to locate this leak and to repair the leak.

3.3 We anticipate that the work can take up to 3 days to top up both feeders. Normal working time for our installation teams will be from Monday to Friday from 08h00 to 16h00 and jointers will be entitled to a 30 min lunch break.

CBI-electric: african cables | a division of ATC (Pty) Ltd | Registration No. 1955/003773/07
PO Box 172, Vereeniging 1930 | Steel Road, Peacehaven, Vereeniging, 1939, South Africa
Tel: +27 16 430 6000 | www.cbi-electric.com | Member of the REUNERT Group | B-BBEE Level 1
ISO 9001 | ISO 14001 | ISO 45001

3.4 CBI has not allowed for any repairs to the oil tanks and assume that the existing ones are still in a condition that they can be re-used. CBI will therefore not be held liable for the integrity of the oil tanks.

2.1. CBI has not made provision for any security in this Quotation and all security requirements shall be the responsibility of Stellenbosch Municipality. CBI will not accept any liability for any damages caused to any cable, cable accessory or any equipment on site during these periods.

2.2. Stellenbosch Municipality will be required to provide CBI with all necessary work permits, site inductions and access to work as well as a baseline risk assessment where applicable. CBI will provide a safety file for the team allocated to this scope of work.

2.3. As per standard CBI safety procedures, it is essential that the system on which work is being performed by CBI is locked out, isolated and earthed at all times and Stellenbosch Municipality shall support such a requirement as far as reasonably practical. For safety reasons, CBI may not be able to commence work if no permits are issued by Stellenbosch Municipality and/or if no isolation and lockout has been executed by Stellenbosch Municipality Engineers.

2.4. CBI will not be held liable for delays associated with adverse weather conditions and/or rain delays where jointing or terminating work has been affected.

3. **Value Added Tax**

Our quoted amount stated above is exclusive of Value Added Tax.

4. **Payment Terms**

Nett 30 days from date of receipt of invoice. CBI Standard Terms and Conditions apply; a copy is available on request.

5. **Terms and Conditions**

This quotation is subject to our Standard Terms and Conditions and is available on request for that is not covered in this cover letter.

NO WORK WILL COMMENCE WITHOUT AN OFFICIAL PURCHASE ORDER.

6. **Validity**

This quotation is valid for 30 days from date of quotation.

7. **Delivery**

Installation: An estimated time to complete the scope of work on both feeders is 3 working days (excluding weekends). This is subject has been allowed for subject to there being access granted and subject to receiving a valid Purchase Order.

8. Ownership

Ownership of material to be supplied will remain with CBI until full payment thereof.

9. Consequential Damages

Any quotation submitted by CBI to a client and any contract resulting from the acceptance thereof, will be concluded on, and subject to, the express condition that CBI shall not be liable for any indirect or consequential loss or damage of any nature whatsoever, following from any breach of any of the terms of the contract.

10. Warranty

The defects notification period will be 1 year on all material supplied and installed by CBI as per this quotation. There will be no warranty on existing cable and equipment. All cable and related installation work performed by CBI is warranted to comply with the specifications stated in the contract, to be of high grade material throughout and of good and careful workmanship in such a manner that CBI undertakes to correct and make good any defect (regardless whether such defect is patent or latent in nature) which may develop under normal and proper use within the defects notification period, and which are due solely to a fault in manufacturer's design, material or workmanship, provided always that we are notified immediately when the defect is discovered.

Notwithstanding the foregoing, CBI shall not be held responsible for defects caused by ordinary wear and tear, lack of maintenance, unintended use, misuse, abuse, improper or unsuitable installation, external accidents or other causes beyond the reasonable control of CBI.

The repaired or replaced product will be delivered free to the initial place of delivery. The defective product thus replaced becomes the property of CBI. The defects notification period on the repaired or replaced product expires on the later of:

- 6 (six) months from the date of replacement or completion of such repair, or
- the date when the defects notification period on the product initially supplied would have expired.

The defects notification period commences from the date of handover, or if handover cannot be made on account of circumstances beyond CBI control, then from the date the circuit/s are ready to energise, or would have been ready to energise but for such circumstances. After expiry of the defects notification period stated above, CBI shall have no further liability whatsoever in respect of any defect, regardless whether such defect is parent or latent in nature. The warranties and remedies set forth above constitute the purchaser's sole remedies in the event of a breach of such warranties by CBI. The warranties set forth above are in lieu of, and CBI disclaims any and all other warranties, written or oral, express or implied, including any warranty of merchantability or fitness for a particular purpose. Our liability is, in all cases, limited as provided in these conditions and does not extend to consequential loss or damage, nor to (without limitation to the generality of the afore going) any expense for repair or replacement or otherwise, paid or incurred without our prior written authorisation.

11. Force Majeure

The contract will be subject to the following conditions:

- Force Majeure means any circumstances beyond the control of a party, including but not limited to:

  (a) war and other hostilities, (whether war be declared or not), invasion, act of foreign enemies, mobilisation, requisition or embargo;

(b) ionising radiation or contamination by radio-activity from any nuclear fuel or from any nuclear waste from the combustion of nuclear fuel, radio-active toxic explosives, or other hazardous properties of any explosive nuclear assembly or nuclear components thereof;

(c) rebellion, revolution, insurrection, military or usurped power and civil war;

(d) riot, commotion, disorder or strike action, except where solely restricted to employees of a party

- Neither party shall be considered to be in default or in breach of its obligations under the contract to the extent that performance of such obligations is prevented by any circumstances of Force Majeure which arise after the date of the Letter of Acceptance or the date when the contract becomes effective, whichever is the earlier.

We trust that our offer meets your expectations. Should you require any further information, please do not hesitate to contact Mr Christo Heenop on 0664879001.

Regards

pp

PRAVESH HARIPERSAD
GENERAL MANAGER: POWER INSTALLATIONS
E-mail: pravesh.haripersad@CBI-electric.com
Tel: 016 430 6147
Mobile: 084 569 9787