

Umjantshi House
30 Wolmarans Str.
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PROJECT SPECIFICATION FOR

SUPPLY AND INSTALLATION OF SUBSTATION SAFETY BARRIER FENCE, GATES, SAFETY WARNING NOTICES AND DANGER WARNING SIGNS IN THE MABOPANE CORRIDOR

PROJECT SCOPE AND SPECIFICATION

1. SCOPE OF SUPPLY

This RFQ covers the supply and installation of barrier fences, gates, warning notices and signs in the Substations between Pretoria and Mabopane. The need for each Substation is indicated in section 4 of this document. The barrier fence, fence supports (poles) and other fence accessories to be used as part of the barrier fence, warning notices/signs must comply with Engineering Instructions S.016, Electrical Safety Instructions and relevant drawings as indicated in section 3 and section 4 of

2. SUBSTATIONS COVERED BY THIS RFQ

- 1) Hercules Substation
- 2) Mitchell Street Tie Station
- 3) Tshepo Petla Substation
- 4) Wolmerton Substation
- 5) Wintersnest Substation
- 6) Kruis Substation
- 7) Poort Substation
- 8) Mabopane Substation
- 9) Sjambok Substation
- 10) Develdt Substation
- 11) Rosslyn Substation

Directors Acting Chairperson N. Nokwe-Macamo,
Adv. S. Sethene, Adv. M. Motlogelwa,
L. Joel, N. Makaepa, M. Mukhuba, DK. Mohuba,
S. Luthuli, TN. Mpye

Group CEO
H. Emeran

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3. SPECIFICATIONS AND DRAWINGS

All installations must comply with the following Specifications and Drawings:

- Engineering Instruction S.016
- Drawing CEE-TWN-0035 together with a hazard warning notice of exposed live high voltage equipment (SABS 1186: WW23)
- Drawing CEE-TBD-7
- drawings CEE-TBD-7 and BBB 3620
- Perimeter security fences and gates must comply with specification BBB 5452

4. DESCRIPTION OF WORK

A safety barrier fence and gate/s of 1.2m high must be installed between the incoming AC disconnecting the earth switch and the rest of the HV yard in compliance with Engineering Instruction S.016.

An appropriate safety barrier must be installed around the exposed 3kV DC wall bushings and aerial feeder jumpers on the outside of the building. Safety Warning Signs WW23 must be installed on the barrier.

A warning notice with the wording "CAUTION-HIGH VOLTAGE. DO NOT WORK ON APPARATUS UNLESS THE HIGH VOLTAGE EQUIPMENT IS ISOLATED AND EARTHED" in compliance with drawing CEE-TWN-0035 together with a hazard warning notice of exposed live high voltage equipment (SABS 1186: WW23) must be installed on the access gate to the busbars behind the HSCB cells.

The required type and number of safety warning notices and danger warning signs must be installed on all fences and gates in compliance with the Transnet / PRASA Electrical Safety Instructions.

all faded and illegible danger warning notices and signs must be replaced with new warnings notices and signs.

In areas where fence and gates are installed around the feeder support structure in the yard. The gate must be fitted with a gate switch and gas arrester spark gap, all in compliance with drawing CEE-TBD-7

A gate switch separating the high voltage yard and the general outdoor should be installed as described and shown on drawings CEE-TBD-7 and BBB 3620



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SUBSTATION NAME	FENCE	GATE	WARNING SIGNS
Hercules Substation	<p>A fence of 1,2 meters high and 59 meters long</p> <p>A fence of 2,4 meters high and 83 meters long</p>	<p>A lockable gate of 1.2 meters high and 1 meter wide</p> <p>2x lockable gates of 2,4 meters high and 1 meter wide per gate</p>	<p>10 Areas must be fitted with warning notices and signs in compliance with the ESI and Engineering instruction S.016</p> <p>1x warning notice with the wording "CAUTION-HIGH VOLTAGE. DO NOT WORK ON APPARATUS UNLESS THE HIGH VOLTAGE EQUIPMENT IS ISOLATED AND EARTHED" in compliance with drawing CEE-TWN-0035 together with a hazard warning notice of exposed live high voltage equipment (SABS 1186: WW23) must be installed on the access gate to the busbars behind the HSCB cells.</p>
Mitchell Street Tie Station	<p>A fence of 2,4 meters high and 20 meters long</p>	<p>A lockable gate of 2,4 meters high and 1 meter wide</p>	<p>7 Areas must be fitted with warning notices and signs in compliance with the ESI and Engineering instruction S.016</p>

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			<p>1x warning notice with the wording “CAUTION-HIGH VOLTAGE. DO NOT WORK ON APPARATUS UNLESS THE HIGH VOLTAGE EQUIPMENT IS ISOLATED AND EARTHED” in compliance with drawing CEE-TWN-0035 together with a hazard warning notice of exposed live high voltage equipment (SABS 1186: WW23) must be installed on the access gate to the busbars behind the HSCB cells.</p>
<p>Tshepo Petla Substation</p>	<p>A fence of 1,2 meters high and 45 meters long</p> <p>A fence of 2,4 meters high and 8 meters long</p>	<p>A lockable gate of 1.2 meters high and approximately 1 meter wide</p> <p>A lockable gate of 2,4 meters high and approximately 1 meter wide</p>	<p>10 Areas must be fitted with warning notices and signs in compliance with the ESI and Engineering instruction S.016</p> <p>1x warning notice with the wording “CAUTION-HIGH VOLTAGE. DO NOT WORK ON APPARATUS UNLESS THE HIGH VOLTAGE EQUIPMENT IS ISOLATED AND EARTHED” in compliance with drawing CEE-TWN-0035 together with a hazard warning notice of exposed live high voltage equipment (SABS 1186: WW23) must be installed on the access gate to the</p>



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			busbars behind the HSCB cells.
Wolmerton Substation	<p>A fence of 1,2 meters high and 35 meters long</p> <p>A fence of 2,4 meters high and 17 meters long</p>	<p>A lockable gate of 1.2 meters high and approximately 1 meter wide</p> <p>A lockable gate of 2,4 meters high and approximately 1 meter wide</p>	<p>10 Areas must be fitted with warning notices and signs in compliance with the ESI and Engineering instruction S.016</p> <p>1x warning notice with the wording "CAUTION-HIGH VOLTAGE. DO NOT WORK ON APPARATUS UNLESS THE HIGH VOLTAGE EQUIPMENT IS ISOLATED AND EARTHED" in compliance with drawing CEE-TWN-0035 together with a hazard warning notice of exposed live high voltage equipment (SABS 1186: WW23) must be installed on the access gate to the busbars behind the HSCB cells.</p>
Wintersnest Substation	A fence of 2,4 meters high and 26 meters long	A lockable gate of 2,4 meters high and 1 meter wide	10 Areas must be fitted with warning notices and signs in compliance with the ESI and Engineering instruction S.016

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			<p>1x warning notice with the wording “CAUTION-HIGH VOLTAGE. DO NOT WORK ON APPARATUS UNLESS THE HIGH VOLTAGE EQUIPMENT IS ISOLATED AND EARTHED” in compliance with drawing CEE-TWN-0035 together with a hazard warning notice of exposed live high voltage equipment (SABS 1186: WW23) must be installed on the access gate to the busbars behind the HSCB cells.</p>
<p>Kruis Substation</p>	<p>A fence of 1,2 meters high and 38 meters long</p> <p>A fence of 2,4 meters high and 13 meters long</p>	<p>A lockable gate of 1.2 meters high and 1 meter wide</p> <p>A lockable gate of 2,4 meters high and 1 meter wide</p>	<p>10 Areas must be fitted with warning notices and signs in compliance with the ESI and Engineering instruction S.016</p> <p>1x warning notice with the wording “CAUTION-HIGH VOLTAGE. DO NOT WORK ON APPARATUS UNLESS THE HIGH VOLTAGE EQUIPMENT IS ISOLATED AND EARTHED” in compliance with drawing CEE-TWN-0035 together with a hazard warning notice of exposed live high voltage equipment (SABS 1186: WW23) must be installed on the access gate to the busbars behind the HSCB cells.</p>



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<p>Poort Substation</p>	<p>A fence of 1,2 meters high and 38 meters long</p> <p>A fence of 2,4 meters high and 11 meters long</p>	<p>A lockable gate of 1.2 meters high and 1 meter wide</p> <p>A lockable gate of 2,4 meters high and 1 meter wide</p>	<p>10 Areas must be fitted with warning notices and signs in compliance with the ESI and Engineering instruction S.016</p> <p>1x warning notice with the wording "CAUTION-HIGH VOLTAGE. DO NOT WORK ON APPARATUS UNLESS THE HIGH VOLTAGE EQUIPMENT IS ISOLATED AND EARTHED" in compliance with drawing CEE-TWN-0035 together with a hazard warning notice of exposed live high voltage equipment (SABS 1186: WW23) must be installed on the access gate to the busbars behind the HSCB cells.</p>
<p>Mabopane Substation</p>	<p>A fence of 1,2 meters high and 65 meters long</p> <p>A fence of 2,4 meters high and 133 meters long</p>	<p>A lockable gate of 1.2 meters high and 1 meter wide</p> <p>A lockable gate of 2,4 meters high and 1 meter wide</p>	<p>10 Areas must be fitted with warning notices and signs in compliance with the ESI and Engineering instruction S.016</p> <p>1x warning notice with the wording "CAUTION-HIGH VOLTAGE. DO NOT</p>

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		A lockable gate of 2,4 meters high and 4,6 meter wide	WORK ON APPARATUS UNLESS THE HIGH VOLTAGE EQUIPMENT IS ISOLATED AND EARTHED” in compliance with drawing CEE-TWN-0035 together with a hazard warning notice of exposed live high voltage equipment (SABS 1186: WW23) must be installed on the access gate to the busbars behind the HSCB cells.
Sjambok Substation	<p>A fence of 1,2 meters high and 25 meters long</p> <p>A fence of 2,4 meters high and 24 meters long</p>	<p>A lockable gate of 1.2 meters high and 1 meter wide</p> <p>A lockable gate of 2,4 meters high and 1 meter wide</p>	<p>10 Areas must be fitted with warning notices and signs in compliance with the ESI and Engineering instruction S.016</p> <p>1x warning notice with the wording “CAUTION-HIGH VOLTAGE. DO NOT WORK ON APPARATUS UNLESS THE HIGH VOLTAGE EQUIPMENT IS ISOLATED AND EARTHED” in compliance with drawing CEE-TWN-0035 together with a hazard warning notice of exposed live high voltage equipment (SABS 1186: WW23) must be installed on the access gate to the busbars behind the HSCB cells.</p>
Develdt Substation	A fence of 1,2 meters high and 37meters long	A lockable gate of 1.2 meters high and 1 meter wide	10 Areas must be fitted with warning notices and signs in compliance with the



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	A fence of 2,4 meters high and 11 meters long	A lockable gate of 2,4 meters high and 1 meter wide	ESI and Engineering instruction S.016 1x warning notice with the wording "CAUTION-HIGH VOLTAGE. DO NOT WORK ON APPARATUS UNLESS THE HIGH VOLTAGE EQUIPMENT IS ISOLATED AND EARTHED" in compliance with drawing CEE-TWN-0035 together with a hazard warning notice of exposed live high voltage equipment (SABS 1186: WW23) must be installed on the access gate to the busbars behind the HSCB cells.
Rosslyn Substation	A fence of 1,2 meters high and 26 meters long A fence of 2,4 meters high and 24 meters long	A lockable gate of 1.2 meters high and 1 meter wide A lockable gate of 2,4 meters high and 1 meter wide	10 Areas must be fitted with warning notices and signs in compliance with the ESI and Engineering instruction S.016 1x warning notice with the wording "CAUTION-HIGH VOLTAGE. DO NOT WORK ON APPARATUS UNLESS THE HIGH VOLTAGE

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			EQUIPMENT IS ISOLATED AND EARTHED” in compliance with drawing CEE-TWN-0035 together with a hazard warning notice of exposed live high voltage equipment (SABS 1186: WW23) must be installed on the access gate to the busbars behind the HSCB cells.
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5. PROJECT DURATION

The duration of the contract will be for 12 months or until the expiry of the Defects Notification Period.

6. GUARANTEE

6.1 PRASA reserves the right to visually inspect the material during /after installation for any defects or damages.

6.2 The works shall be subjected to a guarantee period of one year. The guarantee period shall commence the day it is formally handed over to and accepted by PRASA.

6.3 Any defects that may become apparent during the guarantees period shall be rectified to the satisfaction of the client at a free cost.

6.4 Should the contractor fail to comply with the above, the contractor must reimburse PRASA the total cost paid towards the contractor.

7. PENALTY

Should the Contractor fail to complete the works on/before the stipulated completion dates, a penalty fee of R5000 per week will be charged.



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8. PRICING SCHEDULE

Item	Description	Unit	Quantity	Rate	Amount
1.		ea			
2.		ea			
				Sub-total (VAT exclusive)	
				VAT @15%	
				TOTAL (VAT Inclusive)	

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