CITY POWER
JOHANNESBURG

Bidders are hereby invited for the following RFQ,
further details are available from CITY POWER,
Tender Advice Centre, 40 Heronmere Rd, Reuven, Booysens
Telephone 011 490-7000, Fax 011 490-7765/011 870-3688
CITY POWER JOHANNESBURG (SOC) LTD

ADVERTISEMENT

REQUEST FOR QUOTATION:	**CABLE, POWER, ELECTRICAL; CONDUCTOR QUANTITY: 2; MATERIAL: COPPER & PLASTIC POLYVINYL CHLORIDE; CROSS-SECTIONAL SHAPE STYLE: FLAT; LENGTH-1: 1EA=1M; ROUND CONDUCTOR SIZE: 2.5 SQUARE MILLIMETERS**
REQUEST FOR QUOTATION:	
RFQ CLOSING DATE:	**27 October 2021**
RFQ CLOSING TIME:	**11h00**
VENUE:	**City Power – Tender Advice Centre**
CONTACT PERSON:	**Masego Moiloa**

RFQ DOCUMENTS WILL BE AVAILABLE ON SITE AND ON THE WEBSITE
AS FROM 20 OCTOBER 2021

40 HERONMERE ROAD REUVEN, BOOYSENS

SUBMISSIONS: QUOTATION BOX, TENDER ADVICE CENTRE

Please note:-
That we also advertise on our Website:
Website Address: www.citypower.co.za Available Bid's and RFQ'S

Request for Quotations

Contact Person: Masego Moiloa
Tel: (011) 490-7209
Email:mmoiloa@citypower.co.za

Company: .....
Attention: .....
Tel: .....
Fax: .....
Email: .....

You are hereby invited to submit a quotation for the items listed below. Please provide a written quotation to the above named contact person on or before the closing date indicated below. Only quotations which contain the information listed below will be accepted. Prices should be shown inclusive of VAT and fixed and firm. Delivery will be direct to the relevant City Power store.

	Material/Service Description	Estimated Quantities (Quantity may change at the time of placing an order)	**Price Each**	Total Excl. VAT
7355	Cable,Power,Electrical; Conductor Quantity: 2; Material: Copper & Plastic Polyvinyl Chloride; Cross-Sectional Shape Style: Flat; Length-1: 1EA=1M; Round Conductor Size: 2.5 Square Millimeters. ITEM SPECIFICATION NO. CP_TSSPEC_252	10000		
NB: COMPLETE ATTACHED SPECIFICATION CP_TSSPEC_252 **Note:** Ticks, Cross [√, X], Asterisk [*], Word [Noted or Comply] or TBA ["To Be Advice"] will not be accepted.				
vat @15%				
TOTAL Incl. VAT				

Closing date and time for submission of quotation: 27/10/2021 @ 11h00

NB:

Specification must be fully COMPLETED, 100% COMPLIANT and ATTACHED to the submission: Failure will result in quote reviewed as NON-RESPONSIVE and will not be evaluated any further.

Specification: CP_TSSPEC_252 **Stock Item No. 7355**	**Fully Compliant to Specification** **Fully Completed and signed**

EVALUATION CRITERIA

Item	Mandatory Requirements
1	**A minimum threshold of 90% local production must be achieved to proceed to the 1st Stage Evaluation. Refer. MBD 6.2 & Annexures. (Please complete annexures C, D and E)**

MINIMUM THRESHOLD OF 80% ON TECHNICAL MUST BE ACHIEVED FAILING WHICH, THE BID WILL NOT BE EVALUATED FURTHER

	Evaluation Criteria	Scoring	Weighting
	FIRST STAGE EVALUATION - 80% THRESHOLD MUST BE ACHIEVED		**100**
1.	Fully compliant, completed and signed technical schedule	Fully compliant, completed and signed technical schedule = 10 POINTS Partially completed =0 POINT	**30**
2.	Provide catalogue or data sheet	Catalogue or data sheet provided = 10 POINTS Catalogue or data sheet not provided = 0 POINT	**50**
3.	Provide a valid ISO 9001 certificate from the manufacturer/OEM	ISO 9001 certificate = 10 POINTS No ISO certificate = 0 POINT	**20**
TOTAL		**100**	
	SECOND STAGE EVALUATION		
1.	**Price**	**80**	
2.	**BBBEE Level**	**20**	

Vendors must supply written quotations that reflect the following information on the quotation:

- Quotation Validity Period:_____
- Delivery period_____
- Company Name:_____
- Company Registration Number:_____
- VAT Registration Number_____
- Physical Address:_____
- Contact Person:_ _____
- Telephone Number:_ _____
- Fax Number/Email Address:_____
- Company Income Tax Number (i.e. SARS No):_____
- **Original** Tax Clearance Certificate Attached or consent for City Power to ascertain from
- SARS whether your status is in order:
- Signed disclaimer (Attached to this RFQ):_____

PREFERENCE POINT SYSTEM WILL BE USED FOR VALUE BETWEEN R30K AND R200K

Evaluation is based on Price only
Points awarded for Price and RDP goals (80/20)

PRICE	**80**
B-BBEE Status Level of Contributor	**Number of points (80/20 system)**
1	20
2	18
3	14
4	12
5	8
6	6
7	4
8	2
Non-complaint Contributor	0

CALCULATION

1. THE 80/20 PREFERENCE POINT SYSTEMS

A maximum of 80 points is allocated for price on the following basis:

$$Ps = 80\left(1 - \frac{Pt - P\min}{P\min}\right)$$

Where
Ps = Points scored for price of bid under consideration
Pt = Rand value of bid under consideration
Pmin = Rand value of lowest acceptable bid

2. Points awarded for historically disadvantaged individuals

A maximum of 20 points is allocated for price on the following basis:

$$NEP = NOP \times \frac{EP}{100}$$

Where
NEP = Points awarded for equity ownership by an HDI, and values for 10, 5 and 5 will be calculated
NOP = The maximum number of points awarded for equity ownership by an HDI in that specific category

EP = The percentage of equity ownership by an HDI within the enterprise or business, determined in accordance with the definition of HDI's.

Disclaimer: Supplier (_____) hereby warrants that he/she/it has:

(Name of supplier)

1. Read, fully understood and hereby accept City Power's standard quotation Terms & Conditions as published on the official City Power website;
2. Submitted a true and accurate declaration of interests reflecting that the supplier has no immediate family relations and that none of its shareholders, directors, managers or stakeholders are in the employ of City Power or the state currently and that no such relatives, shareholders, directors, managers or stakeholders have been so employed in the previous 12 months;

3. Undertakes to complete a fresh declaration of interests should these circumstances have changed as at date of this quotation. (This declaration is obtainable from the City Power's website/ Commodity Managers and the abovementioned contact person).

Name, Date & Signature of Supplier **(Person responsible for the Quote)**	**Name:** **Signature:**	**Date**

PLEASE SUPPLY THE FOLLOWING DOCUMENTS TO ENABLE US TO EVALUATE YOUR SUBMISSION:

1. **VALID TAX CLEARANCE CERTIFICATE**
2. **VALID BBBEE CERTIFICATE**
3. **SIGNED DECLARATION OF INTEREST FORM (MBD4) AND (MBD9)**
4. **CSD SUPPLIER NUMBER AND SUPPLIER UNIQUE NUMBER**

MBD 4

DECLARATION OF INTEREST

1. No bid will be accepted from persons in the service of the state[1].

2. Any person, having a kinship with persons in the service of the state, including a blood relationship, may make an offer or offers in terms of this invitation to bid. In view of possible allegations of favouritism, should the resulting bid, or part thereof, be awarded to persons connected with or related to persons in service of the state, it is required that the bidder or their authorised representative declare their position in relation to the evaluating/adjudicating authority.

3 In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.

3.1 Full Name of bidder or his or her representative:……..

3.2 Identity Number: …….

3.3 Position occupied in the Company (director, trustee, hareholder[2]):……..

3.4 Company Registration Number: …….

3.5 Tax Reference Number:……

3.6 VAT Registration Number: ……

3.7 The names of all directors / trustees / shareholders members, their individual identity numbers and state employee numbers must be indicated in paragraph 4 below.

3.8 Are you presently in the service of the state? **YES / NO**

3.8.1 If yes, furnish particulars. ….……

……..

[1]MSCM Regulations: "in the service of the state" means to be –

(a) a member of –
  (i) any municipal council;
  (ii) any provincial legislature; or
  (iii) the national Assembly or the national Council of provinces;

(b) a member of the board of directors of any municipal entity;
(c) an official of any municipality or municipal entity;
(d) an employee of any national or provincial department, national or provincial public entity or constitutional institution within the meaning of the Public Finance Management Act, 1999 (Act No.1 of 1999);
(e) a member of the accounting authority of any national or provincial public entity; or
(f) an employee of Parliament or a provincial legislature.

[2] Shareholder" means a person who owns shares in the company and is actively involved in the management of the company or business and exercises control over the company

3.9 Have you been in the service of the state for the past twelve months? ……**YES / NO**

3.9.1 If yes, furnish particulars……...……..

…….

3.10 Do you have any relationship (family, friend, other) with persons in the service of the state and who may be involved with the evaluation and or adjudication of this bid? …… **YES / NO**

3.10.1 If yes, furnish particulars.

……

……3.11 Are you, aware of any relationship (family, friend, other) between any other bidder and any persons in the service of the state who may be involved with the evaluation and or adjudication of this bid? **YES / NO**

3.11.1 If yes, furnish particulars

……

……

3.12 Are any of the company's directors, trustees, managers, principle shareholders or stakeholders in service of the state? **YES / NO**

3.12.1 If yes, furnish particulars.

……

……

3.13 Are any spouse, child or parent of the company's directors trustees, managers, principle shareholders or stakeholders in service of the state? **YES / NO**

3.13.1 If yes, furnish particulars.

……

……

3.14 Do you or any of the directors, trustees, managers, principle shareholders, or stakeholders of this company have any interest in any other related companies or business whether or not they are bidding for this contract. **YES / NO**

3.14.1 If yes, furnish particulars:

……

……

4. Full details of directors / trustees / members / shareholders.

Full Name	**Identity Number**	**State Employee Number**

…….. ……..

Signature **Date**

…… ……

Capacity **Name of Bidder**

MBD 6.2

DECLARATION CERTIFICATE FOR LOCAL PRODUCTION AND CONTENT

This Municipal Bidding Document (MBD) must form part of all bids invited. It contains general information and serves as a declaration form for local content (local production and local content are used interchangeably).

Before completing this declaration, bidders must study the General Conditions, Definitions, Directives applicable in respect of Local Content as prescribed in the Preferential Procurement Regulations, 2017, the South African Bureau of Standards (SABS) approved technical specification number SATS 1286:2011 (Edition 1) and the Guidance on the Calculation of Local Content together with the Local Content Declaration Templates [Annex C (Local Content Declaration: Summary Schedule), D (Imported Content Declaration: Supporting Schedule to Annex C) and E (Local Content Declaration: Supporting Schedule to Annex C)].

1. General Conditions

1.1. Preferential Procurement Regulations, 2017 (Regulation 8) make provision for the promotion of local production and content.

1.2. Regulation 8.(2) prescribes that in the case of designated sectors, organs of state must advertise such tenders with the specific bidding condition that only locally produced or manufactured goods, with a stipulated minimum threshold for local production and content will be considered.

1.3. Where necessary, for tenders referred to in paragraph 1.2 above, a two stage bidding process may be followed, where the first stage involves a minimum threshold for local production and content and the second stage price and B-BBEE.

1.4. A person awarded a contract in relation to a designated sector, may not sub-contract in such a manner that the local production and content of the overall value of the contract is reduced to below the stipulated minimum threshold.

1.5. The local content (LC) expressed as a percentage of the bid price must be calculated in accordance with the SABS approved technical specification number SATS 1286: 2011 as follows:

$$LC = [1 - x / y] * 100$$

Where
x is the imported content in Rand
y is the bid price in Rand excluding value added tax (VAT)

Prices referred to in the determination of x must be converted to Rand (ZAR) by using the exchange rate published by South African Reserve Bank (SARB) on the date of advertisement of the bid as indicated in paragraph 3.1 below.

The SABS approved technical specification number SATS 1286:2011 is accessible on http:/www.thedti.gov.za/industrial development/ip.jsp at no cost.

1.6. A bid may be disqualified if this Declaration Certificate and the Annex C (Local Content Declaration: Summary Schedule) are not submitted as part of the bid documentation;

2. The stipulated minimum threshold(s) for local production and content for this bid is 100% as follows:

Description of services, works or goods	Stipulated minimum threshold
Steel poles	100%

NOTE: BIDDERS HAVE TO COMPLETE ANNEX C PER ITEM/COMMODITY BEFORE COMPLETING ANNEX D and E.

ANNEXTURES C, D AND E MUST BE DOWNLOADED FROM THE DTI WEBSITE

3. Does any portion of the goods or services offered have any imported content?
(***Tick applicable box***)

YES		NO	

3.1 If yes, the rate(s) of exchange to be used in this bid to calculate the local content as prescribed in paragraph 1.5 of the general conditions must be the rate(s) published by SARB for the specific currency on the date of advertisement of the bid.

The relevant rates of exchange information is accessible on www.reservebank.co.za

Indicate the rate(s) of exchange against the appropriate currency in the table below (refer to Annex A of SATS 1286:2011):

Currency	**Rates of exchange**
US Dollar	
Pound Sterling	
Euro	
Yen	
Other	

NB: Bidders must submit proof of the SARB rate (s) of exchange used.

4. Where, after the award of a bid, challenges are experienced in meeting the stipulated minimum threshold for local content the DTI must be informed accordingly in order for the DTI to verify and in consultation with the AO/AA provide directives in this regard.

LOCAL CONTENT DECLARATION
(REFER TO ANNEX B OF SATS 1286:2011)

LOCAL CONTENT DECLARATION BY CHIEF FINANCIAL OFFICER OR OTHER LEGALLY RESPONSIBLE PERSON NOMINATED IN WRITING BY THE CHIEF EXECUTIVE OR SENIOR MEMBER/PERSON WITH MANAGEMENT RESPONSIBILITY (CLOSE CORPORATION, PARTNERSHIP OR INDIVIDUAL)

IN RESPECT OF BID NO. .....

ISSUED BY: (Procurement Authority / Name of Institution):
.....
NB

1 The obligation to complete, duly sign and submit this declaration cannot be transferred to an external authorized representative, auditor or any other third party acting on behalf of the bidder.

2 Guidance on the Calculation of Local Content together with Local Content Declaration Templates (Annex C, D and E) is accessible on http://www.thedti.gov.za/industrial_development/ip.jsp. Bidders should first complete Declaration D. After completing Declaration D, bidders should complete Declaration E and then consolidate the information on Declaration C. **Declaration C should be submitted with the bid documentation at the closing date and time of the bid in order to substantiate the declaration made in paragraph (c) below.** Declarations D and E should be kept by the bidders for verification purposes for a period of at least 5 years. The successful bidder is required to continuously update Declarations C, D and E with the actual values for the duration of the contract.

I, the undersigned, ……..... (full names), do hereby declare, in my capacity as …… ……..
of .....(name of bidder entity), the following:

(a) The facts contained herein are within my own personal knowledge.

(b) I have satisfied myself that:

(i) the goods/services/works to be delivered in terms of the above-specified bid comply with the minimum local content requirements as specified in the bid, and as measured in terms of SATS 1286:2011; and

(c) The local content percentage (%) indicated below has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 3.1 above and the information contained in Declaration D and E which has been consolidated in Declaration C:

Bid price, excluding VAT (y)	R
Imported content (x), as calculated in terms of SATS 1286:2011	R
Stipulated minimum threshold for local content (paragraph 3 above)	

Local content %, as calculated in terms of SATS 1286:2011	

If the bid is for more than one product, the local content percentages for each product contained in Declaration C shall be used instead of the table above.
The local content percentages for each product has been calculated using the formula given in clause 3 of SATS 1286:2011, the rates of exchange indicated in paragraph 3.1 above and the information contained in Declaration D and E.

(d) I accept that the Procurement Authority / Institution has the right to request that the local content be verified in terms of the requirements of SATS 1286:2011.

(e) I understand that the awarding of the bid is dependent on the accuracy of the information furnished in this application. I also understand that the submission of incorrect data, or data that are not verifiable as described in SATS 1286:2011, may result in the Procurement Authority / Institution imposing any or all of the remedies as provided for in Regulation 14 of the Preferential Procurement Regulations, 2017 promulgated under the Preferential Policy Framework Act (PPPFA), 2000 (Act No. 5 of 2000).

SIGNATURE: _____

WITNESS No. 1 _____ **DATE:** _____

WITNESS No. 2 _____ **DATE:** _____

DECLARATION OF BIDDER'S PAST SUPPLY CHAIN MANAGEMENT PRACTICES

1 This Municipal Bidding Document must form part of all bids invited.

2 It serves as a declaration to be used by municipalities and municipal entities in ensuring that when goods and services are being procured, all reasonable steps are taken to combat the abuse of the supply chain management system.

3 The bid of any bidder may be rejected if that bidder, or any of its directors have:

a. abused the municipality's / municipal entity's supply chain management system or committed any improper conduct in relation to such system;
b. been convicted for fraud or corruption during the past five years;
c. willfully neglected, reneged on or failed to comply with any government, municipal or other public sector contract during the past five years; or
d. been listed in the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004).

4 In order to give effect to the above, the following questionnaire must be completed and submitted with the bid.

Item	Question	Yes	No
4.1	Is the bidder or any of its directors listed on the National Treasury's Database of Restricted Suppliers as companies or persons prohibited from doing business with the public sector? (Companies or persons who are listed on this Database were informed in writing of this restriction by the Accounting Officer/Authority of the institution that imposed the restriction after the *audi alteram partem* rule was applied). **The Database of Restricted Suppliers now resides on the National Treasury's website(www.treasury.gov.za) and can be accessed by clicking on its link at the bottom of the home page.**	Yes ☐	No ☐
4.1.1	If so, furnish particulars:		

4.2	Is the bidder or any of its directors listed on the Register for Tender Defaulters in terms of section 29 of the Prevention and Combating of Corrupt Activities Act (No 12 of 2004)? **e accessed on the National Treasury's website (www.treasury.gov.za) by clicking on its link at the bottom of the home page.**	Yes ☐	No ☐
4.2.1	If so, furnish particulars:		
4.3	Was the bidder or any of its directors convicted by a court of law (including a court of law outside the Republic of South Africa) for fraud or corruption during the past five years?	Yes ☐	No ☐
4.3.1	If so, furnish particulars:		
Item	**Question**	**Yes**	**No**
4.4	any municipal rates and taxes or municipal charges to the municipality / municipal entity, or to any other municipality / municipal entity, that is in arrears for more than three months?	Yes ☐	No ☐
4.4.1	If so, furnish particulars:		
4.5	Was any contract between the bidder and the municipality / municipal entity or any other organ of state terminated during the past five years on account of failure to perform on or comply with the contract?	Yes ☐	No ☐
4.7.1	If so, furnish particulars:		

CERTIFICATION

I, THE UNDERSIGNED (FULL NAME) ……..……..……
CERTIFY THAT THE INFORMATION FURNISHED ON THIS DECLARATION FORM TRUE AND CORRECT.

I ACCEPT THAT, IN ADDITION TO CANCELLATION OF A CONTRACT, ACTION MAY BE TAKEN AGAINST ME SHOULD THIS DECLARATION PROVE TO BE FALSE.

……...	**……..**
Signature	**Date**
…….	**……..**
Position	**Name of Bidder**

MBD 9

CERTIFICATE OF INDEPENDENT PROPOSAL DETERMINATION

I, the undersigned, in submitting the accompanying proposal:

_____

(Proposal Number and Description)

in response to the invitation for the proposal made by:

_____

(Name of Municipality / Municipal Entity)

do hereby make the following statements that I certify to be true and complete in every respect:

I certify, on behalf of: _____that:

(Name of Bidder)

1. I have read and I understand the contents of this Certificate;
2. I understand that the accompanying bid will be disqualified if this Certificate is found not to be true and complete in every respect;
3. I am authorized by the bidder to sign this Certificate, and to submit the accompanying bid, on behalf of the bidder;
4. Each person whose signature appears on the accompanying proposal has been authorized by the bidder to determine the terms of, and to sign, the proposal, on behalf of the bidder;
5. For the purposes of this Certificate and the accompanying proposal, I understand that the word “competitor” shall include any individual or organization, other than the bidder, whether or not affiliated with the bidder, who:

    (a) have been requested to submit a bid in response to this proposal invitation;
    (b) could potentially submit a proposal in response to this proposal invitation, based on their qualifications, abilities or experience; and
    (c) provides the same goods and services as the bidder and/or is in the same line of business as the bidder

6. The bidder has arrived at the accompanying proposal independently from, and without consultation, communication, agreement or arrangement with any competitor. However communication between partners in a joint venture or consortium[3] will not be construed as collusive bidding.
7. In particular, without limiting the generality of paragraphs 6 above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
    (a) prices;
    (b) geographical area where product or service will be rendered (market allocation)
    (c) methods, factors or formulas used to calculate prices;
    (d) the intention or decision to submit or not to submit, a proposal;
    (e) the submission of a proposal which does not meet the specifications and conditions of the proposal; or
    (f) bidding with the intention not to win the proposal.
8. In addition, there have been no consultations, communications, agreements or arrangements with any competitor regarding the quality, quantity, specifications and conditions or delivery particulars of the products or services to which this proposal invitation relates.
9. The terms of the accompanying proposal have not been, and will not be, disclosed by the bidder, directly or indirectly, to any competitor, prior to the date and time of the official bid opening or of the awarding of the contract.
10. I am aware that, in addition and without prejudice to any other remedy provided to combat any restrictive practices related to proposal and contracts, proposal that are suspicious will be reported to the Competition Commission for investigation and possible imposition of administrative penalties in terms of section 59 of the Competition Act No 89 of 1998 and or may be reported to the National Prosecuting Authority (NPA) for criminal investigation and or may be restricted from conducting business with the public sector for a period not exceeding ten (10) years in terms of the Prevention and Combating of Corrupt Activities Act No 12 of 2004 or any other applicable legislation.

…… ……

Signature Date

…… ……

Position Name of Bidder

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FOREWORD

Recommendations for corrections, additions or deletions should be addressed to the:

Research and Asset Development Department

General Manager

City Power Johannesburg (SOC) Ltd

P O Kiosk 38766

Booysens

2016

INTRODUCTION

Cabtyre Cable is high conductivity bunched plain flexible copper conductors to SANS1411 Part 1. Insulated and colour coded with general purpose flexible grade PVC to SANS1411 Part 2. Cores are twisted together and sheathed with a flexible grade PVC.

1. SCOPE

This specification covers City Power's requirements for Cabtyre Cable covers solid, stranded and flexible circular conductors, and solid and stranded shaped conductors of the sizes included in various specifications for insulated electric cables and flexible cords published by Standards South Africa. reactive load not exceeding 1 800 VA at 230 V and 50 Hz in accordance with SANS1777.

2. NORMATIVE REFERENCES

The following documents contain provisions that, through reference in the text, constitute requirements of this specification. At the time of publication, the editions indicated were valid. All standards and specifications are subject to revision, and parties to agreements based on this specification are encouraged to investigate the possibility of applying the most recent editions of the documents listed below.

SANS 1411-1: 2008: *Materials of insulated electric cables and flexible cords;*

.

3. DEFINITIONS AND ABBREVIATIONS

The following definitions and abbreviations shall apply to this specification:

3.1 Acceptable

Acceptable to the authorities administering this standard, or to the parties concluding the purchase contract, as relevant

3.2 Bunched conductor

Flexible conductor in which the wires are assembled in helical formation, all in the same direction and with the same length of lay

3.3 Compacted conductor

Stranded conductor, the overall diameter of which has been reduced by mechanical means

3.4 Flexible conductor

Uncompacted stranded conductor, made up of fine wires to increase its flexibility for use in non-fixed wiring applications

3.5 Metal coated

Description of wire that is covered with a thin layer of another metal or metal alloy to improve its solder ability or its resistance to oxidation, particularly in high temperature applications

3.6 Milliken conductor

Conductor made up of three or more compacted stranded segments, lightly insulated from each other to reduce the a.c. resistance of the conductor

3.7 Plain conductor

Conductor made up of wires that are not metal coated

3.8 Rope-stranded

Conductor flexible conductor, that comprises a number of groups of wires, assembled in one or more helical layers, the wires in each group being either bunched or stranded

3.9 Sectoral conductor

Circular conductor made up of four helically assembled solid aluminium segments

3.10 Shaped conductor

Conductor of non-circular cross-section

3.11 Sector shaped

Shaped conductor, the cross-section of which approximates to a sector of a circle

4. REQUIREMENTS

4.1 Classification

A conductor shall be of one of the following classes:

a) Class 1 A solid conductor intended for use in cables for fixed installations.

b) Class 2 A stranded or compacted conductor, for use in cables for fixed installations.

c) Class 5 A conductor intended for use in flexible cables or cords.

d) Class 6 A conductor intended for use in flexible cables or cords, having greater flexibility than that of a class 5 conductor.

4.2 General

Conductors shall be made from one of the following materials:

a) Plain or metal-coated annealed copper.

b) Plain or metal-coated hard-drawn copper; or

c) Plain aluminum

4.2.1 Copper
Copper for conductors shall be in the form of plain annealed or plain hard-drawn wire. The wire shall be un-oxidized, smooth, uniform in quality and free from scale, spills, splits and other defects.

4.2.2 Aluminum

Aluminium for stranded conductors shall be in the form of plain hard, ¾ hard, or ½ hard (H, ¾ H, or ½ H) wire. The wire shall be smooth, uniform in quality and free from scale, spills, splits and other defects. Aluminium for solid conductors shall, in the finished cable, be in a temper condition corresponding to a maximum tensile strength of 80 MPa.

4.3 Constructional requirements

4.3.1 General

Conductors shall be clean and uniform in size and shape, with the surface free from sharp protruding edges. There shall be no protruding broken wires.

4.3.2 Joints

4.3.2.1 A stranded conductor shall be free from broken wires.
4.3.2.2 Any joint in a conductor or wire shall be made to an acceptable standard of workmanship, and shall be such that it will not materially increase the dimensions of the individual wire, individual bunch or the finished conductor, or impair the inherent flexibility of the conductor.

4.3.2.3 A joint involving all the wires in a stranded class 2 conductor shall be made to an acceptable standard of workmanship, by separately joining each individual wire, with the individual joints acceptably staggered.

4.3.2.4 Subject to the requirements given in 4.3.2.2 above, class 2 conductors of sizes up to and including 16 mm2, to be used in multicore cables with outer protection, may be butt-jointed by an acceptable method.

4.3.2.5 There shall be no butt-joints in class 2 conductors for single-core cables.

4.3.2.6 There shall be no joints in hard-drawn class 1 copper conductors.

4.3.2.7 Joints may be made to the wires within an individual bunch of a rope-stranded class 5 or class 6 conductor, by grouping together up to seven wires at any one point. Such joints shall be acceptably staggered.

4.3.2.8 There shall be not more than one joint involving all the wires or bunches of the conductor in any 100 m length of conductor.

4.3.3 Conductors for cables to be used in fixed installations

4.3.3.1 Solid conductors (class 1)

4.3.3.1.1 A solid copper conductor shall be of circular cross-section.
4.3.3.1.2 A solid aluminum conductor of size 25 mm2 to 300 mm2 (inclusive) shall be of circular cross-
4.3.3.1.3 Section for a single-core cable and may be either circular or shaped for a multicore cable.

A sectoral conductor of size 280 mm2 to 1 200 mm2 (inclusive) for single-core cables, shall be of circular cross-section, and shall consist of four solid sectors, each of the shape appropriate for a four-core cable, helically laid up and acceptably bound.

4.3.3.2 Non-compacted stranded circular conductors (class 2)

A non-compacted stranded aluminum conductor shall be of minimum size 16 mm2.

The wires in each non-compacted stranded conductor shall all be of the same nominal size.

The number of wires in a non-compacted stranded conductor shall not be less than the appropriate minimum number given in table 2. No minimum number is quoted for conductors in the range 1 200 mm2 to 2 000 mm2.

4.3.3.3 Compacted circular and shaped conductors (class 2)

Compacted circular or shaped conductors shall comprise plain or metal-coated annealed copper wires or plain aluminum wires.

A compacted circular aluminum conductor shall be of minimum size 16 mm2.

A compacted shaped aluminum conductor shall be of minimum size 25 mm2.

The number of wires in a compacted stranded conductor shall not be less than the appropriate minimum number given in table 2. No minimum number is quoted for conductors in the range 1200 mm2 to 2 000 mm2.

A circular conductor larger than 630 mm2 may be of Milliken construction.

4.3.3.4 Flexible conductors (class 5 and class 6)

A flexible conductor shall be of plain or metal-coated annealed copper. The wires in a flexible conductor shall all be of the same nominal size.

The diameter of the wires in a flexible conductor shall not exceed the appropriate maximum diameter given in column 2 of table 3 for class 5 conductors or in column 2 of table 4 for class 6 conductors.

4.4 Electrical requirements

The d.c. resistance of a conductor in a finished cable, measured in accordance with 5.3 and related to a reference temperature of 20 °C by means of the appropriate correction factor given in table 5, shall not exceed the appropriate value specified for the conductor in tables 1 to 4.

4.5 Physical requirements

4.5.1 Ductility of annealed copper wires

The elongation at break, determined in accordance with 5.4.1, of a solid annealed copper conductor shall not be less than the appropriate minimum value given in table 7.

4.5.2 Ductility of aluminum wires and hard-drawn copper wires

A solid circular aluminum or hard-drawn copper conductor, or an aluminum or hard-drawn copper wire, taken from a class 2 non-compacted stranded conductor, shall withstand, without breaking, the lapping test given in 5.4.2.

4.5.3 Tensile strength of aluminum, aluminum alloy and hard-drawn copper wires

The tensile strength of a solid circular aluminum or hard-drawn copper conductor, or of an aluminum or a hard-drawn copper wire taken from a class 2 non-compacted stranded conductor, determined in accordance with 5.4.3, shall not be less than the appropriate minimum value given in table 8.

4.6 Requirements for coatings

4.6.1 Quality of tin coating (copper wires)

When tin-coated copper wires are tested in accordance with 5.5.1, the mass of copper dissolved shall not exceed the appropriate value given in table 6.

4.6.2 Quality of silver coating (copper wires)

When silver-coated copper wires are tested in accordance with

a) 5.5.2.1, the specimens shall show no signs of exposed copper, and

b) 5.5.2.2, the mass of the silver coating shall be at least 2, 5 % of the total mass of the wire.

4.6.3 Quality of nickel coating (copper wires)

When nickel-coated copper wires are tested in accordance with

a) 5.5.3.1, the specimens shall show no signs of exposed copper,

b) 5.5.3.2, the specimens shall show no signs of cracking or flaking of the coating, and

c) 5.5.3.3, the mass of the nickel coating shall be at least 4 % of the total mass of the wire.

5. INSPECTION AND METHODS OF TEST

5.1 Inspection

Inspect the conductors in the finished cable for compliance with all the relevant requirements of this part of SANS 1411 for which tests to assess compliance are not given in 5.2 to 5.5 inclusive.

NOTE: *Compliance with this part of SANS 1411 can be assessed only on specimens removed from a finished cable or cord.*

5.2 Dimensions

From a sample of flexible conductors, take at random 10 % of the wires, or five wires, whichever is the greater, and determine the maximum diameter of the wire, using a vernier micrometer graduated in 0,002 mm intervals.

5.3 Conductor resistance

Use SANS 6282-1, and adjust the measured value to the reference temperature of 20 °C by means of the appropriate correction factor given in table 5.

5.4 Physical properties

5.4.1 Ductility (annealed copper wires)

Use SANS 6282-3.

5.4.2 Lapping test (aluminum and hard-drawn copper wires)

Use SANS 6282-3.

5.4.3 Tensile properties (aluminum, aluminum alloy and hard-drawn copper wires)

Use SANS 6282-3.

5.5 Tests on Coatings

5.5.1 Quality of tin coating on copper wires

Use SANS 6282-2.

5.5.2 Quality of silver coating on copper wires

5.5.2.1 Continuity of coating

Use SANS 6282-2.

5.5.2.2 Mass of coating

Use one of the methods given in the appendix to ASTM B 298.

5.5.3 Quality of nickel coating on copper wires

5.5.3.1 Continuity of coating

Use SANS 6282-2.

5.5.3.2 Adherence of coating

Use SANS 6282-2
.

5.5.3.3 Mass of coating

Use one of the methods given in the appendix to ASTM B 355.

Table 1 — Class 1 solid conductors in single-core and multicore cables

1	2	3	4
Conductor size mm2	**Maximum resistance of conductor at 20 °C Ω/km**		
	Circular annealed copper conductor		**Aluminium conductor, circular or shaped**

	Plain	**Metal-coated**	
0.5 0.75 1	36,0 24,5 18,1	36,7 24,8 18,2	– – –
1,5 2,5 4	12,1 7,41 4,61	12,2 7,56 4,70	– – –

Table 2 — Class 2 stranded conductors in single-core and multicore cables

1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Conductor size mm2	**Minimum number of wires in conductor**						**Maximum resistance of conductor at 20 °C Ω/km**		
	Circular conductor (non-compacted)		**Circular conductor (compacted))**		**Shaped conductor**		**Annealed copper conductor**		**Aluminium conductor**
			Cu	**Al**	**Cu**	**Al**	**Plain wires**	**Metal coated wires**	
0,5 0,75 1	7 7 7	– – –	6 6 6	– – –	– – –	– – –	36,0 24,5 18,1	36,7 24,8 18,2	– – –
1,5 2,5 4	7 7 7	– – –	6 6 6	– – –	– – –	– – –	12,1 7,41 4,61	12,2 7,56 4,70	– – –

Table 3 — Class 5 flexible copper conductors in single-core and multicore cables and flexible cords

1	2	3	4
Conductor Size mm2	**Maximum diameter of wires in conductor** mm	**Maximum resistance of conductor at 20 °C** Ω/km	
		Plain wires	**Metal-coated wires**
0,22 0,33 0,5	0,21 0,21 0,21	92,0 61,0 39,0	92,4 61,7 40,1

Table 4 — Class 6 flexible copper conductors in single-core and multicore cables and flexible cords

1	2	3	4
Conductor Size mm2	**Maximum diameter of wires in conductor** mm	**Maximum resistance of conductor at 20 °C** Ω/km	
		Plain wires	**Metal-coated wires**
0,22 0,33 0,5	0,16 0,16 0,16	92,0 61,0 39,0	92,4 61,7 40,1
0,75 1 1,5	0,16 0,16 0,16	26,0 19,5 13,3	26,7 20,0 13,7

Table 5 — Temperature correction factors

1	**2**
Temperature *t* of conductor at time of measurement **°C**	**Correction factor *k*t (all conductors)**
5 6 7	1,064 1,059 1,055
8 9 10	1,050 1,046 1,042
11 12 13	1,037 1,033 1,029
14 15 16	1,025 1,020 1,016
17 18 19	1,012 1,008 1,004
20 21 22	1,000 0,996 0,992
23 24 25	0,988 0,984 0,980
26 27 28	0,977 0,973 0,969
29 30	0,965 0,962

NOTE: *The values of the correction factor kt are based on a resistance-temperature coefficient of 0,004/°C at 20 °C.*

The values of the temperature correction factors are approximate, but give practical values well within the accuracies that can normally be achieved in the measurements of conductor temperature and length of cables or flexible cords.

For more accurate values of the temperature correction factors for copper and aluminum, reference should be made to annex A. The more accurate values that are obtainable by use of the formulae given in annex A are, however, not required for the purpose of assessing compliance with the requirements for conductor resistance given in this part of SANS 1411.

Table 6 - Permissible mass of copper dissolved in the persulphate test

1	**2**	**3**
Diameter of wire		**Maximum mass of copper dissolved** 9/m2
Above mm	**Up to and including** Mm	
0,149 0,510	0,510 3,200	5 3

Table 7 - Elongation at break of annealed copper wires

1	**2**	**3**
Diameter of wire		**Minimum elongation** **%**
Above mm	**Up to and including** Mm	
- 0,14 0,21 0,51 1,36	0,14 0,21 0,51 1,36 -	6 9 13 18 23

Table 8 – Tensile strength of conductor wires

1	**2**	**3**
Conductor material		**Minimum tensile strength** MPa
Hard-drawn copper of Diameter		
Above mm	**Up to and including** Mm	
- 1,25 2,00 3,15	1,25 2,00 3,15 -	370 360 350 340
Aluminum		100
Aluminium alloy		295

Note: Annexure A
(Informative)

Exact formulae for temperature correction factors

A.1 *Annealed copper conductors, plain or metal coated*
*k*t = 254,5 / (234,5 + *t*) = 1 / [1 + 0,003 93 (*t* – 20)
]
A.2 *Aluminium conductors*

*k*t = 248 / (228 + *t*) = 1 / [1 + 0,004 03 (*t* – 20)]

A.3 *Hard-drawn copper conductors, plain or metal coated*

*k*t = 262,5 / (242,5 + *t*) = 1 / [1 + 0,003 81 (*t* – 20)]

where:

*k*t is the temperature correction factor for conductor resistance;

t is the temperature of the conductor, in degrees Celsius, at the time of measure m

Note: Annexure B (Informative)

Guide to the dimensional limits of conductors

The following tables are included as a guide to the likely maximum diameters of solid circular, compacted stranded circular, uncompacted stranded circular and flexible conductors.

Tables of dimensions for solid aluminium shaped 2-core, 3-core and 4-core conductors are also given.

Table B.1 Maximum diameters of solid circular class 1 conductors, compacted and uncompacted stranded circular class 2 conductors and flexible circular conductors of class 5 and class 6

Table B.2 Dimensions of solid aluminium 2-core conductors

Table B.3 Dimensions of solid aluminium 3-core conductors

Table B.4 Dimensions of solid aluminium 4-core conductors

Table B.1 is based on dimensions provided by members of the Association of Electric Cable Manufacturers of South Africa.

Tables B.2, B.3 and B.4 are based on dimensions given in BS 3988.

Table B.1 — Maximum diameters of circular conductors

1	2	3	4	5
Conductor size mm²	**Solid circular class 1** Mm	**Compacted stranded circular class 2** mm	**Uncompacted stranded circular class 2** mm	**Flexible circular class 5 or 6** mm
1,5	1,35	-	1,60	1,65
2,5	1,75	-	2,05	2,10
4	2,20	-	2,50	2,0

Table B.2 — Dimensions of solid aluminium 2-core conductors

1	2	3	4	5	6	7
Conductor size	**Depth (*D*)**		**Width (*W*)**		**Nominal radii**	
	Minimum	**Maximum**	**Minimum**	**Maximum**	**Back (R)**	**Corner (r)**
mm²	mm	mm	mm	mm	mm	mm

25	3,56	3,74	8,36	8,66	4,50	0,50
35	4,20	4,44	9,74	10,12	5,20	0,52
50	4,95	5,21	11,24	11,66	5,96	0,59
70	6,03	6,31	13,40	13,88	7,05	0,70
95	7,16	7,47	15,68	16,21	8,20	0,82
120	8,10	8,44	17,55	18,13	9,16	0,91
150	8,95	9,31	19,57	20,20	10,22	1,02
185	10,08	10,47	21,83	25,51	11,37	1,13
240	11,59	12,02	25,00	25,77	13,00	1,30
300	13,04	13,50	27,88	28,72	14,47	1,44

Table B.3 – Dimensions of solid aluminium 3-core conductors

1	**2**	**3**	**4**	**5**	**6**	**7**
Conductor Size	**Depth (D)**		**Width (W)**		**Normal radii**	
	Minimum	**Maximum**	**Minimum**	**Maximum**	**Back (R)**	**Corner (r)**
mm2	mm	mm	mm	mm	mm	mm
25	4,51	4,71	8,02	8,30	5,67	0,56
35	5,29	5,56	9,39	9,76	6,53	0,65
50	6,19	6,48	10,90	11,31	7,47	0,74
70	7,49	7,82	13,09	13,55	8,81	0,88
95	8,87	9,23	15,39	15,92	10,24	1,02
120	10,02	10,40	17,29	17,87	11,41	1,14
150	11,10	11,51	19,22	19,84	12,76	1,27
185	12,46	12.91	21,51	22,19	14,17	1,41
240	14,31	14,81	24,66	25,42	16,20	1,62
300	16,06	16,60	27,59	28,42	18,01	1,80

Table B.4 – Dimensions of solid aluminium 4-core conductors

1	2	3	4	5	6	7
Conductor Size	Depth (D)		Width (W)		Normal radii	
	Minimum	Maximum	Minimum	Maximum	Back (R)	Corner (r)
mm2	mm	mm	mm	mm	mm	mm
25	5,12	5,33	7,26	7,52	6,71	0,67
35	6,02	6,30	8,52	8,87	7,71	0,77
50	7,04	7,35	9,93	10,31	8,79	0,87
70	8,51	8,86	11,95	12,38	10,35	1,03
95	10,06	10,45	14,08	14,57	12,00	1,20
120	11,35	11,77	15,85	16,38	13,36	1,33
150	12,58	13,03	17,59	18,17	14,96	1,49
185	14,11	14,60	19,71	20,34	16,59	1,65
240	16,21	16,76	22,60	23,31	18,96	1,89
300	18,18	18,78	25,31	26,09	21,06	2,10

6. QUALITY ASSURANCE

A quality management plan shall be set up in order to assure the proper quality management of the conductor wire cabtyre during design, development, production, installation and servicing phases. Guidance on the requirements for a quality management plan may be found in the ISO 9001:2015. The details shall be subject to agreement between City Power and the Supplier.

7. ENVIRONMENTAL MANAGEMENT

An environmental management plan shall be set up in order to ensure proper management and compliance of the conductor wire cabtyre during installation operation, maintenance, and decommissioning phases. Guidance on the requirements of a health and safety plan may be found in OHSAS 14001:2007 standards. This is to ensure that the asset conforms to standard operating procedures and City Power SHERQ Policy. The details shall be subject to agreement between City Power and the Supplier.

8. HEALTH AND SAFETY

A health and safety plan shall be set up in order to ensure proper management of conductor wire cabtyre and compliance of the queuing system during installation, operation, maintenance, and decommissioning phases. Guidance on the requirements of a health and safety plan may be found in OHSAS 18001 standards. This is to ensure that the asset conforms to standard operating procedures and City Power SHERQ Policy. The details shall be subject to agreement between City Power and the Supplier.

ANNEXURE A – BIBLIOGRAPHY

None

ANNEXURE B - REVISION INFORMATION

DATE	REV. NO.	NOTES
September 2021	0	First Issue

ANNEXURE C - TECHNICAL SCHEDULES A AND B

ITEM 1: CAB CABTYRE PVC 1, 5 3CU SAP 1531

Schedule A: Purchaser's specific requirements
Schedule B: Guarantees and technical particulars of equipment offered

Item	Sub-clause of CP_TSSPEC_252	Description		Schedule A	Schedule B
1		Name of manufacture		Required	
2		Date of manufacture		Required	
3		Place of manufacture		Required	
4		Manufacturer's identification reference		Required	
5	1	Specification to which Cabytre Cable complies		SANS 1411	
6	4.4	Rated operating ambient temperatures	ºC	-15 to +20	
7	4.1	Conductor size	mm²	1,5	
8	4.2.4	Number of Cores	3	Required	
9	4.3	Type of cable (Insulated wire, power or multi-core control)		Insulated wire	
10	4.1	Marking requirements		Required	
11	5	Technical Catalogue to be provided with tender documentation		Required	
12	5	Certified copy of type test to be provided with tender		SANS 1411	
13					

NOTE: TICKS [✓✗], ASTERISK [*], WORD [NOTED], OR TBA [TO BE ADVISED] SHALL NOT BE ACCEPTED.

Tender Number: _____

Tenderer's Authorised Signatory: _____
Name in block letters Signature

Full name of company: _____

DEVIATION SCHEDULE

ITEM 1: CAB CABTYRE PVC 1, 5 3CU SAP 1531

Any deviations offered to this specification shall be listed below with reasons for deviation. In addition, evidence shall be provided that the proposed deviation will at least be more cost-effective than that specified by City Power.

Item	Sub-clause of CP_TSSPEC_252	Proposed deviation

Tender Number: _____

Tenderer's Authorised Signatory: _____

Name in block letters Signature

Full name of company: _____

TECHNICAL SCHEDULES A AND B

ITEM 2: CAB CABTYRE PVC 2, 5 3CU -SAP 7303

Schedule A: Purchaser's specific requirements
Schedule B: Guarantees and technical particulars of equipment offered

Item	Sub-clause of CP_TSSPEC_252	Description		Schedule A	Schedule B
1		Name of manufacture		Required	
2		Date of manufacture		Required	
3		Place of manufacture		Required	
4		Manufacturer's identification reference		Required	
5	1	Specification to which Cabytre Cable complies		SANS 1411	
6	4.4	Rated operating ambient temperatures	ºC	-15 to +20	
7	4.1	Conductor size	mm²	2,5	
8	4.2.4	Number of Cores	3	Required	
9	4.3	Type of cable (Insulated wire, power or multi-core control)		Insulated wire	
10	4.1	Marking requirements		Required	
11	5	Technical Catalogue to be provided with tender documentation		Required	
12	5	Certified copy of type test to be provided with tender		SANS 1411	
13					

NOTE: TICKS [✓✗], ASTERISK [*], WORD [NOTED], OR TBA [TO BE ADVISED] SHALL NOT BE ACCEPTED.

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Name in block letters Signature

Full name of company: _____

DEVIATION SCHEDULE

ITEM 2: CAB CABTYRE PVC 2, 5 3CU -SAP 7305

Any deviations offered to this specification shall be listed below with reasons for deviation. In addition, evidence shall be provided that the proposed deviation will at least be more cost-effective than that specified by City Power.		
Item	**Sub-clause of CP_TSSPEC_252**	**Proposed deviation**

Tender Number: _____

Tenderer's Authorised Signatory: _____
Name in block letters Signature

Full name of company: _____

TECHNICAL SCHEDULES A AND B

ITEM 3: CAB: SGL Core, 1.5mm², 600 to 1000V -SAP 7337

Schedule A: Purchaser's specific requirements
Schedule B: Guarantees and technical particulars of equipment offered

Item	Sub-clause of CP_TSSPEC_252	Description		Schedule A	Schedule B
1		Name of manufacture		Required	
2		Date of manufacture		Required	
3		Place of manufacture		Required	
4		Manufacturer's identification reference		Required	
5	1	Specification to which Cabytre Cable complies		SANS 1411	
6	4.4	Rated operating ambient temperatures	ºC	-15 to +20	
7	4.1	Conductor size	mm²	1.5	
8	4.2.4	Number of Cores	3	Required	
9	4.3	Type of cable (Insulated wire, power or multi-core control)		Insulated wire	
10	4.1	Marking requirements		Required	
11	5	Technical Catalogue to be provided with tender documentation		Required	
12	5	Certified copy of type test to be provided with tender		SANS 1411	
13					

NOTE: TICKS [✓✗], ASTERISK [*], WORD [NOTED], OR TBA [TO BE ADVISED] SHALL NOT BE ACCEPTED.

Tender Number: _____

Tenderer's Authorised Signatory: _____
Name in block letters Signature

Full name of company: _____

DEVIATION SCHEDULE

ITEM 3: CAB: SGL CORE, 1.5MM², 600 TO 1000V -SAP 7337

Any deviations offered to this specification shall be listed below with reasons for deviation. In addition, evidence shall be provided that the proposed deviation will at least be more cost-effective than that specified by City Power.		
Item	**Sub-clause of CP_TSSPEC_252**	**Proposed deviation**

Tender Number: _____

Tenderer's Authorised Signatory: _____
Name in block letters Signature

Full name of company: _____

TECHNICAL SCHEDULES A AND B

ITEM 4: CAB SURFIX (NORSE) PVC 2, 5 2+E CU AFA -SAP 7448

Schedule A: Purchaser's specific requirements
Schedule B: Guarantees and technical particulars of equipment offered

Item	Sub-clause of CP_TSSPEC_252	Description		Schedule A	Schedule B
1		Name of manufacture		Required	
2		Date of manufacture		Required	
3		Place of manufacture		Required	
4		Manufacturer's identification reference		Required	
5	1	Specification to which Cabytre Cable complies		SANS 1411	
6	4.4	Rated operating ambient temperatures	ºC	-15 to +20	
7	4.1	Conductor size	mm²	2,5	
8	4.2.4	Number of Cores	3	Required	
9	4.3	Type of cable (Insulated wire, power or multi-core control)		Insulated wire	
10	4.1	Marking requirements		Required	
11	5	Technical Catalogue to be provided with tender documentation		Required	
12	5	Certified copy of type test to be provided with tender		SANS 1411	
13					

NOTE: TICKS [✓✗], ASTERISK [*], WORD [NOTED], OR TBA [TO BE ADVISED] SHALL NOT BE ACCEPTED.

Tender Number: _____

Tenderer's Authorised Signatory: _____
Name in block letters Signature

Full name of company: _____

DEVIATION SCHEDULE

ITEM 4: CAB SURFIX (NORSE) PVC 2, 5 2+E CU AFA -SAP 7448

Any deviations offered to this specification shall be listed below with reasons for deviation. In addition, evidence shall be provided that the proposed deviation will at least be more cost-effective than that specified by City Power.		
Item	**Sub-clause of CP_TSSPEC_252**	**Proposed deviation**

Tender Number: _____

Tenderer's Authorised Signatory: _____
Name in block letters Signature

Full name of company: _____

ITEM 5: CABLE NORSE 1.5MM X 2CORE (PER 100M)-SAP 7347

Schedule A: Purchaser's specific requirements
Schedule B: Guarantees and technical particulars of equipment offered

Item	Sub-clause of CP_TSSPEC_252	Description		Schedule A	Schedule B
1		Name of manufacture		Required	
2		Date of manufacture		Required	
3		Place of manufacture		Required	
4		Manufacturer's identification reference		Required	
5	1	Specification to which Cabytre Cable complies		SANS 1411	
6	4.4	Rated operating ambient temperatures	ºC	-15 to +20	
7	4.1	Conductor size	mm²	1,5	
8	4.2.4	Number of Cores	2	Required	
9	4.3	Type of cable (Insulated wire, power or multi-core control)		Insulated wire	
10	4.1	Marking requirements		Required	
11	5	Technical Catalogue to be provided with tender documentation		Required	
12	5	Certified copy of type test to be provided with tender		SANS 1411	
13					

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Tender Number: _____

Tenderer's Authorised Signatory: _____
Name in block letters Signature

Full name of company: _____

DEVIATION SCHEDULE

ITEM 5: CABLE NORSE 1.5MM X 2CORE (PER 100M)-SAP 7347

Any deviations offered to this specification shall be listed below with reasons for deviation. In addition, evidence shall be provided that the proposed deviation will at least be more cost-effective than that specified by City Power.		
Item	**Sub-clause of CP_TSSPEC_252**	**Proposed deviation**

Tender Number: _____

Tenderer's Authorised Signatory: _____
Name in block letters Signature

Full name of company: _____

TECHNICAL SCHEDULES A AND B

ITEM 6: CABLE: FLAT, 2 CORE, 6MM PVC (PER 100M) -SAP 7352

Schedule A: Purchaser's specific requirements
Schedule B: Guarantees and technical particulars of equipment offered

Item	Sub-clause of CP_TSSPEC_252	Description		Schedule A	Schedule B
1		Name of manufacture		Required	
2		Date of manufacture		Required	
3		Place of manufacture		Required	
4		Manufacturer's identification reference		Required	
5	1	Specification to which Cabytre Cable complies		SANS 1411	
6	4.4	Rated operating ambient temperatures	ºC	-15 to +20	
7	4.1	Conductor size	mm²	6	
8	4.2.4	Number of Cores	2	Required	
9	4.3	Type of cable (Insulated wire, power or multi-core control)		Insulated wire	
10	4.1	Marking requirements		Required	
11	5	Technical Catalogue to be provided with tender documentation		Required	
12	5	Certified copy of type test to be provided with tender		SANS 1411	
13					

NOTE: TICKS [✓✗], ASTERISK [*], WORD [NOTED], OR TBA [TO BE ADVISED] SHALL NOT BE ACCEPTED.

Tender Number: _____

Tenderer's Authorised Signatory: _____
Name in block letters Signature

Full name of company: _____

DEVIATION SCHEDULE

ITEM 6: CABLE: FLAT, 2 CORE, 6MM PVC (PER 100M) -SAP 7352

Any deviations offered to this specification shall be listed below with reasons for deviation. In addition, evidence shall be provided that the proposed deviation will at least be more cost-effective than that specified by City Power.		
Item	**Sub-clause of CP_TSSPEC_252**	**Proposed deviation**

Tender Number: _____

Tenderer's Authorised Signatory: _____
Name in block letters Signature

Full name of company: _____

TECHNICAL SCHEDULES A AND B

ITEM 7: CABLE: ROUND + BE, 4 CORE, 2.5MM, WHITE (PER 100M)-SAP 7304

Schedule A: Purchaser's specific requirements
Schedule B: Guarantees and technical particulars of equipment offered

Item	Sub-clause of CP_TSSPEC_252	Description		Schedule A	Schedule B
1		Name of manufacture		Required	
2		Date of manufacture		Required	
3		Place of manufacture		Required	
4		Manufacturer's identification reference		Required	
5	1	Specification to which Cabytre Cable complies		SANS 1411	
6	4.4	Rated operating ambient temperatures	ºC	-15 to +20	
7	4.1	Conductor size	mm²	2,5	
8	4.2.4	Number of Cores	4	Required	
9	4.3	Type of cable (Insulated wire, power or multi-core control)		Insulated wire	
10	4.1	Marking requirements		Required	
11	5	Technical Catalogue to be provided with tender documentation		Required	
12	5	Certified copy of type test to be provided with tender		SANS 1411	
13					

NOTE: TICKS [✓✗], ASTERISK [*], WORD [NOTED], OR TBA [TO BE ADVISED] SHALL NOT BE ACCEPTED.

Tender Number: _____

Tenderer's Authorised Signatory: _____
Name in block letters Signature

Full name of company: _____

DEVIATION SCHEDULE

ITEM 7: CABLE: ROUND + BE, 4 CORE, 2.5MM, WHITE (PER 100M)-SAP 7304

Any deviations offered to this specification shall be listed below with reasons for deviation. In addition, evidence shall be provided that the proposed deviation will at least be more cost-effective than that specified by City Power.		
Item	**Sub-clause of CP_TSSPEC_252**	**Proposed deviation**

Tender Number: _____

Tenderer's Authorised Signatory: _____
Name in block letters Signature

Full name of company: _____

TECHNICAL SCHEDULES A AND B

ITEM 8: CABLE NORSE 2.5MM 2CORE (PER 100M)-SAP 7348

Schedule A: Purchaser's specific requirements
Schedule B: Guarantees and technical particulars of equipment offered

Item	Sub-clause of CP_TSSPEC_252	Description		Schedule A	Schedule B
1		Name of manufacture		Required	
2		Date of manufacture		Required	
3		Place of manufacture		Required	
4		Manufacturer's identification reference		Required	
5	1	Specification to which Cabytre Cable complies		SANS 1411	
6	4.4	Rated operating ambient temperatures	ºC	-15 to +20	
7	4.1	Conductor size	mm²	2,5	
8	4.2.4	Number of Cores	2	Required	
9	4.3	Type of cable (Insulated wire, power or multi-core control)		Insulated wire	
10	4.1	Marking requirements		Required	
11	5	Technical Catalogue to be provided with tender documentation		Required	
12	5	Certified copy of type test to be provided with tender		SANS 1411	
13					

NOTE: TICKS [✓✗], ASTERISK [*], WORD [NOTED], OR TBA [TO BE ADVISED] SHALL NOT BE ACCEPTED.

Tender Number: _____

Tenderer's Authorised Signatory: _____
Name in block letters Signature

Full name of company: _____

DEVIATION SCHEDULE

ITEM 8: CABLE NORSE 2.5MM 2CORE (PER 100M)-SAP 7348

Any deviations offered to this specification shall be listed below with reasons for deviation. In addition, evidence shall be provided that the proposed deviation will at least be more cost-effective than that specified by City Power.		
Item	**Sub-clause of CP_TSSPEC_252**	**Proposed deviation**

Tender Number: _____

Tenderer's Authorised Signatory: _____

Name in block letters Signature

Full name of company: _____

TECHNICAL SCHEDULES A AND B

ITEM 9: CABLE: FLAT, 2 CORE, 6MM PVC (PER 100M) -SAP 7355

Schedule A: Purchaser's specific requirements
Schedule B: Guarantees and technical particulars of equipment offered

Item	Sub-clause of CP_TSSPEC_252	Description		Schedule A	Schedule B
1		Name of manufacture		Required	
2		Date of manufacture		Required	
3		Place of manufacture		Required	
4		Manufacturer's identification reference		Required	
5	1	Specification to which Cabytre Cable complies		SANS 1411	
6	4.4	Rated operating ambient temperatures	ºC	-15 to +20	
7	4.1	Conductor size	mm²	2.5	
8	4.2.4	Number of Cores	2	Required	
9	4.3	Type of cable (Insulated wire, power or multi-core control)		Insulated wire	
10	4.1	Marking requirements		Required	
11	5	Technical Catalogue to be provided with tender documentation		Required	
12	5	Certified copy of type test to be provided with tender		SANS 1411	
13					

NOTE: TICKS [✓✗], ASTERISK [*], WORD [NOTED], OR TBA [TO BE ADVISED] SHALL NOT BE ACCEPTED.

Tender Number: _____

Tenderer's Authorised Signatory: _____
Name in block letters Signature

Full name of company: _____

DEVIATION SCHEDULE

ITEM 9: CABLE: FLAT, 2 CORE, 2.5 SQ MM PVC (PER 100M) -SAP 7355

Any deviations offered to this specification shall be listed below with reasons for deviation. In addition, evidence shall be provided that the proposed deviation will at least be more cost-effective than that specified by City Power.		
Item	**Sub-clause of CP_TSSPEC_252**	**Proposed deviation**

Tender Number: _____

Tenderer's Authorised Signatory: _____
Name in block letters Signature

Full name of company: _____

ANNEXURE D – STOCK ITEMS

Material Group: CABTYRE COND-WIRE

Item	SAP number	SAP Short Description	SAP Long Description
1	1531	CAB CABTYRE PVC 1,5 3CU	CAB CABTYRE PVC 1, 5 3CU . ITEM SPECIFICATIONCP_TSSPEC_252
2	7305	CAB CABTYRE PVC 2,5 3CU	CAB CABTYRE PVC 2,5 3CU. ITEM SPECIFICATIONCP_TSSPEC_252
3	7337	CAB:SGL Core,1.5mm1,600 to 1000V	CAB: SGL Core, 1.5mm1, 600 to 1000V. ITEM SPECIFICATIONCP_TSSPEC_252
4	7448	CAB SURFIX (NORSE) PVC 2,5 2+E CU AFA	CAB SURFIX (NORSE) PVC 2, 5 2+E CU AFA. ITEM SPECIFICATIONCP_TSSPEC_252
5	7347	CABLE NORSE 1.5MM X 2CORE (PER 100M)	CABLE NORSE 1.5MM X 2CORE (PER 100M) ITEM SPECIFICATIONCP_TSSPEC_252
6	7352	CABLE: FLAT, 2 CORE, 6MM PVC (PER 100M)	CABLE: FLAT, 2 CORE, 6MM PVC (PER 100M) ITEM SPECIFICATIONCP_TSSPEC_252
7	7304	CABLE: ROUND + BE, 4 CORE, 2.5MM, WHITE (PER 100M)	CABLE: ROUND + BE, 4 CORE, 2.5MM, WHITE (PER 100M) ITEM SPECIFICATIONCP_TSSPEC_252
8	7348	CABLE NORSE 2.5MM 2CORE (PER 100M)	CABLE NORSE 2.5MM 2CORE (PER 100M) ITEM SPECIFICATIONCP_TSSPEC_252
9	7355	CABLE: FLAT, 2 CORE, 2.5 SQ MM PVC (PER 100M)	CABLE: FLAT, 2 CORE, 2.5 SQUARE MM PVC (PER 100M) ITEM SPECIFICATIONCP_TSSPEC_252

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Annex C

Local Content Declaration - Summary Schedule

(C1)	**Tender No.**
(C2)	**Tender description:**
(C3)	**Designated product(s)**
(C4)	**Tender Authority:**
(C5)	**Tendering Entity name:**
(C6)	**Tender Exchange Rate:**
(C7)	**Specified local content %**

Pula EU GBP

Note: VAT to be excluded from all calculations

Calculation of local content								Tender summary			
Tender item no's	List of items	Tender price - each (excl VAT)	Exempted imported value	Tender value net of exempted imported content	Imported value	Local value	Local content % (per item)	Tender Qty	Total tender value	Total exempted imported content	Total Imported content
(C8)	*(C9)*	*(C10)*	*(C11)*	*(C12)*	*(C13)*	*(C14)*	*(C15)*	*(C16)*	*(C17)*	*(C18)*	*(C19)*

(C20) **Total tender value**	**R 0**	
(C21) **Total Exempt imported content**		**R 0**
(C22) Total **Tender value net of exempt imported content**		**R 0**
(C23) **Total Imported content**		**R 0**
(C24) **Total local content**		**R 0**
(C25) **Average local content % of tender**		

Signature of tenderer from Annex B

Date: _____

Annex D

Imported Content Declaration - Supporting Schedule to Annex C

(D1)	**Tender No.**	
(D2)	**Tender description:**	
(D3)	**Designated Products:**	
(D4)	**Tender Authority:**	
(D5)	**Tendering Entity name:**	
(D6)	**Tender Exchange Rate:**	Pula

EU R 9,00 GBP R 12,00

Note: VAT to be excluded from all calculations

A. Exempted imported content

Tender item no's	Description of imported content	Local supplier	Overseas Supplier	Calculation of imported content: Forign currency value as per Commercial Invoice	Tender Exchange Rate	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Summary: Tender Qty	Exempted imported value
(D7)	*(D8)*	*(D9)*	*(D10)*	*(D11)*	*(D12)*	*(D13)*	*(D14)*	*(D15)*	*(D16)*	*(D17)*	*(D18)*

(D19) **Total exempt imported value** R 0

This total must correspond with Annex C - C 21

B. Imported directly by the Tenderer

Tender item no's	Description of imported content	Unit of measure	Overseas Supplier	Calculation of imported content: Forign currency value as per Commercial Invoice	Tender Rate of Exchange	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Summary: Tender Qty	Total imported value
(D20)	*(D21)*	*(D22)*	*(D23)*	*(D24)*	*(D25)*	*(D26)*	*(D27)*	*(D28)*	*(D29)*	*(D30)*	*(D31)*

(D32) **Total imported value by tenderer** R 0

C. Imported by a 3rd party and supplied to the Tenderer

Description of imported content	Unit of measure	Local supplier	Overseas Supplier	Calculation of imported content: Forign currency value as per Commercial Invoice	Tender Rate of Exchange	Local value of imports	Freight costs to port of entry	All locally incurred landing costs & duties	Total landed cost excl VAT	Summary: Quantity imported	Total imported value
(D33)	*(D34)*	*(D35)*	*(D36)*	*(D37)*	*(D38)*	*(D39)*	*(D40)*	*(D41)*	*(D42)*	*(D43)*	*(D44)*

(D45) **Total imported value by 3rd party** R 0

D. Other foreign currency payments

Type of payment	Local supplier making the payment	Overseas beneficiary	Calculation of foreign currency payments: Foreign currency value paid	Tender Rate of Exchange	Summary of payments: Local value of payments
(D46)	*(D47)*	*(D48)*	*(D49)*	*(D50)*	*(D51)*

(D52) **Total of foreign currency payments declared by tenderer and/or 3rd party**

Signature of tenderer from Annex B

(D53) **Total of imported content & foreign currency payments - *(D32), (D45) & (D52)* above** R 0

This total must correspond with Annex C - C 23

Date:

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Annex E

Local Content Declaration - Supporting Schedule to Annex C

(E1)	**Tender No.**	
(E2)	**Tender description:**	
(E3)	**Designated products:**	
(E4)	**Tender Authority:**	
(E5)	**Tendering Entity name:**	

Note: **VAT to be excluded from all calculations**

Local Products (Goods, Services and Works)	Description of items purchased	Local suppliers	Value
	(E6)	*(E7)*	*(E8)*
		(E9) **Total local products (Goods, Services and Works)**	R 0

(E10) **Manpower costs** (Tenderer's manpower cost) R 0

(E11) **Factory overheads** (Rental, depreciation & amortisation, utility costs, consumables etc.) R 0

(E12) **Administration overheads and mark-up** (Marketing, insurance, financing, interest etc.) R 0

(E13) **Total local content** R 0

This total must correspond with Annex C - C24

Signature of tenderer from Annex B

Date: _____