AIRPORTS COMPANY SOUTH AFRICA

**AIRPORTS COMPANY SOUTH AFRICA SOC LIMITED**

**PROJECT NAME AND NUMBER:**

**TITLE OF PROJECT: Preventative and Corrective Maintenance of Power Reticulation network (MV & LV) at Upington International Airport for a period of 36 months**

# NEC 3: TERM SERVICE CONTRACT (TSC)

**Between** **AIRPORTS COMPANY SOUTH AFRICA SOC LIMITED**

**Applicable at Upington International Airport**

(Registration Number : 1993/004149/30)

and

(Registration Number : _____)

for **Preventative and Corrective Maintenance of Power Reticulation network (MV & LV) at Upington International Airport for a period of 36 months**

---

| **Contents:** | | **No of pages** |
|---|---|---|
| Part C1 | Agreements & Contract Data | [24] |
| Part C2 | Pricing Data | [5] |
| Part C3 | Employer Service Information | [19] |

C1.1 Forms of Offer and Acceptance

**Offer**
The employer, identified in the acceptance signature block, wishes to enter into a contract for the

**Preventative and Corrective Maintenance of Power Reticulation network (MV & LV) at Upington International Airport for a Period of 36 months**

The Contractor, identified in the offer signature block, has examined this document and addenda hereto as listed in the schedules, and by submitting this offer has accepted the conditions thereof.

By the representative of the Contractor, deemed to be duly authorised, signing this part of this form of offer and acceptance, the Contractor offers to perform all the obligations and liabilities of the Contractor under the contract including compliance with all its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the Conditions of Contract identified in the Contract Data.

| | |
|---|---|
| **The offered total of the Prices exclusive of VAT is** | |
| **Value Added Tax @ 15% is** | |
| **The total offered amount due inclusive of VAT is** | |
| (in words) | |

**for the Contractor**

Signature . . . . . Date . . . . . .

Name . . . . . Capacity . . . . . .

(Name and address of organisation) . . . . . .

. . . . . .

. . . . . .

Name and signature of witness . . . . . signature . . . . . .

This offer may be accepted by the employer by signing the acceptance part of this form of offer and acceptance and returning one copy of this document to the Bidder before the end of the period of validity stated in the tender data, whereupon the Bidder becomes the party named as the Contractor in the conditions of contract identified in the contract data.

**Acceptance**

By signing this part of this form of offer and acceptance, the employer identified below accepts the Contractor's offer. In consideration thereof, the employer shall pay the Contractor the amount due in accordance with the conditions of contract identified in the contract data. Acceptance of the Contractor's offer shall form an agreement between the employer and the Contractor upon the terms and conditions contained in this agreement and in the contract that is the subject of this agreement.

The terms of the contract, are contained in:

Part C1: Agreements and contract data, (which includes this agreement)
Part C2: Pricing data and Price List
Part C3: Service information.
Part C4: Site information
and schedules, drawings and documents or parts thereof where so indicated.

Deviations from and amendments to the documents listed in the tender data and any addenda thereto as listed in the tender schedules as well as any changes to the terms of the offer agreed by the Bidder and the employer during this process of offer and acceptance, are contained in the schedule of deviations attached to and forming part of this agreement. No amendments to or deviations from said documents are valid unless contained in this schedule.

The Contractor shall within two weeks after receiving a completed copy of this agreement, including the schedule of deviations (if any), contact the employer's agent (whose details are given in the contract data) to arrange the delivery of any bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the conditions of contract identified in the contract data. Failure to fulfil any of these obligations in accordance with those terms shall constitute a repudiation of this agreement.

Unless the Bidder (now Contractor) within five working days of the date of such receipt notifies the employer in writing of any reason why he cannot accept the contents of this agreement, this agreement shall constitute a binding contract between the parties.

**for the Employer**

Signature . . . . . Date . . . . . .. . . . . .

Name . . . . . Capacity . . . . . .

**Upington International Airport**
**Diedericks street**
**Upington**
**8801**

Name of
witness . . . . . signature . . . . . Date. . . . . .

**Schedule of Deviations**

1 Subject . . . . . .
Details . . . . . .
. . . . . .
. . . . . .
. . . . . .
2 Subject . . . . . .
Details . . . . . .
. . . . . .
. . . . . .
. . . . . .
3 Subject . . . . . .
Details . . . . . .
. . . . . .
. . . . . .
. . . . . .
4 Subject . . . . . .
Details . . . . . .
. . . . . .
. . . . . .
5 Subject . . . . . .
Details . . . . . .
. . . . . .
. . . . . .

By the duly authorised representatives signing this agreement, the employer and the Contractor agree to and accept the foregoing schedule of deviations as the only deviations from and amendments to the documents listed in the tender data and addenda thereto as listed in the tender schedules, as well as any confirmation, clarification or changes to the terms of the offer agreed by the Bidder and the employer during this process of offer and acceptance.

It is expressly agreed that no other matter whether in writing, oral communication or implied during the period between the issue of the tender documents and the receipt by the Bidder of a completed signed copy of this Agreement shall have any meaning or effect in the contract between the parties arising from this agreement.

C1.2 Contract Data

**Precedence in interpretation of the contract:**
In the event of any ambiguity, inconsistency or conflict between the General Conditions of Contract, Special Conditions, Pricing Data, Service information, or other, the order of precedence shall be as follows:

Firstly, the Service information (C3) and Annexes thereto shall prevail;

Secondly the Contract Data (C1.2) and Conditions of Contract;

Thirdly the General Conditions of Contract;

Fourthly the Pricing data;

Lastly any schedules, drawings and other documents included with this agreement.

**General Conditions of Contract**

The General Conditions of Contract comprise the NEC3 Term Service Contract, April 2013, published by the NEC, and the following "Particular Conditions", which include amendments and additions to such General Conditions.

The following Particular Conditions amplify the General Conditions of Contract and highlight areas in that document that require specific attention.

**Wherein in the contract it is stated no contract data is required accordingly the *conditions of contract* remain unaltered as per NEC3 Term Service Contract, April 2013.**

**C1.2a - Data provided by the *Employer***

| Clause | Statement | Data |
|---|---|---|
| 1 | **General** | |
| | The *conditions of contract* are the core clauses and the clauses for main Option: | |
| | | **A: Priced contract with price list** |
| | dispute resolution Option: | **W1: Dispute resolution procedure** |
| | | **X17: Low service damages** |
| | | **X18: Limitation of Liability (as amended in Option Z)** |
| | | **X19: Task Order** |
| | | **X20: Key performance indicators** |
| | | **Z: Additional conditions of contract** |
| | of the NEC3 Term Service Contract (April 2013) | |
| 10.1 | The *Employer* is: | **Airports Company South Africa SOC Limited (ACSA),**<br>**Registration No 1993/004149/30,**<br>**VAT no 4930138393,**<br>**a juristic person incorporated in terms of the company laws of the Republic of South Africa** |
| | Address | **Upington International Airport**<br>**Diedericks street**<br>**Upington**<br>**8801** |
| | Tel No. | **011 453 9354** |
| 10.1 | The *Service Manager* is: | **TBC** |
| | Address | **Upington International Airport**<br>**Diederick street**<br>**Upington**<br>**8801** |
| | Tel No. | **054 337 7905** |
| | e-mail | |
| 11.2(1) | The *Accepted Plan* is | **Section C3 of this document, including Annexes thereto as submitted by the *Contractor* and accepted by the *Service Manager*** |
| 11.2(2) | The *Affected Property* is | **Upington International Airport** |

| | | |
|---|---|---|
| 11.2(13) | The *service* is | **Preventative and Corrective Maintenance of Power Reticulation network (MV & LV) at Upington International Airport for a Period of 36 months as more fully set out in section C3 *Service Information*.** |
| 11.2(14) | The following matters will be included in the Risk Register | **1 Risk of financial loss and/or injury of 3rd parties due to the proximity of the *service* (or of persons providing the *service*) to all airport users**<br>**2 Risk of injury to contract personnel and all airport users due to lifting/moving of heavy objects**<br>**3 Work with flammable and toxic gases** |
| 11.2(15) | The *Service Information* is in | **Part C3: Employer's Service Information and all documents and drawings and other specifications to which it makes reference** |
| 12.2 | The *law of the contract* is the law of | **the Republic of South Africa** |
| 13.1 | The *language of this contract* is | **English** |
| 13.3 | The *period for reply* is | **5 working days** |
| **2** | **The Contractor's main responsibilities** | **Detailed in Part C3 (Service Information)** |
| 21.1 | The *Contractor* submits a first plan for acceptance within | **5 working days of the *Starting Date*** |
| **3** | **Time** | |
| 30.1 | The *starting date* is | **Upon signing of the contract by ACSA** |
| 30.2 | The *Service Period* is | **36 months after signing of the contract by ACSA** |
| **4** | **Testing and Defects** | **No data is required for this section of the *conditions of contract*** |
| **5** | **Payment** | |
| 50.1 | The *assessment interval* is on the | **Upon receipt of a valid tax invoice.** |
| 51.1 | The *currency of this contract* is the | **South African Rand (ZAR)** |
| 51.2 | The period within which payments are made is | **30 days** |

| | | |
|---|---|---|
| **6** | **Compensation events** | **No data is required for this section of the *conditions of contract.*** |
| **7** | **Use of Equipment Plant and Materials** | **No data is required for this section of the *conditions of contract.*** |
| **8** | **Risks and insurance** | |
| 83.1 | The *Employer* provides these insurances from the Insurance Table | **(i) Insurance against loss of or damage to the *services*, Plant and Materials comprising Contract Works Insurance, SASRIA Special Risks Insurance and Marine & Air Cargo insurance; and**<br>**(ii) Insurance (Public Liability Insurance) against liability for loss or damage to property (except the *services*, Plant and Materials and Equipment) and liability for bodily injury to or death of a person (not an employee of the *Contractor*) caused by activity in connection with the contract;**<br><br>**Note: The terms and other matters applicable to these insurances provided by the Employer (and to insurances generally) are detailed in the insurance schedule attached as section C1.5 to the *contract* ("the Insurance Schedule").** |
| 83.1 | The *Contractor* provides these additional insurances | **The terms and other matters applicable to this insurance provided by the Employer are likewise detailed in section C1.5 to the *contract*.** |
| 83.2 | The minimum amounts of cover or minimum limits of indemnity required for the insurance table | **Refer to section C1.5 Insurance Schedule** |
| 83.1 | The minimum amount of cover for insurance against loss and damage caused by the *Contractor* to the *Employer*'s property is | **Refer to section C1.5 Insurance Schedule** |
| 83.1 | The minimum amount of cover for loss of or damage to Plant and Materials provided by the *Employer* is: | **Refer to section C1.5 Insurance Schedule** |
| 83.1 | The minimum amount of cover for insurance in respect of loss of or damage to property (except the *Employer*'s property, Plant and Materials and Equipment) and liability for bodily injury to or death of a person (not an employee of the *Contractor*) arising from or in connection with the *Contractor*'s Providing the Service for any one event is: | **Refer to section C1.5 Insurance Schedule** |
| 83.1 | The minimum limit of indemnity for insurance in respect of death of or bodily injury to employees of the *Contractor* arising out of and in the course of their employment in connection with this contract for any one event is: | **As prescribed by the Compensation for Occupational Injuries and Diseases Act No. 130 of 1993** |

| | | |
|---|---|---|
| **9** | **Termination** | **No data is required for this section of the *conditions of contract.*** |
| **10** | **Data for main Option clause** | |
| **A** | **Priced contract with price list** | |
| 20.5 | The *Contractor* prepares forecasts of the final total of the Prices for the whole of the *service* at intervals no longer than | **4 weeks.** |
| **11** | **Data for Option W1** | |
| W1.1 | The *Adjudicator* is | **Both parties will agree the Adjudicator when a dispute arises. If the parties cannot reach an agreement on the Adjudicator within 30 days of a dispute arising, the Adjudicator shall be appointed by the nominating body.** |

| **Name** | **Location** | **Contact details (phone & e mail)** |
|---|---|---|
| Adv. Ghandi Badela | Gauteng | +27 11 282 3700<br>ghandi@badela.co.za |
| Mr. Errol Tate Pr. Eng. | Durban | +27 11 262 4001<br>Errol.tate@mweb.co.za |
| Adv. Saleem Ebrahim | Gauteng | +27 11 535-1800<br>salimebrahim@mweb.co.za |
| Mr. Sebe Msutwana Pr. Eng. | Gauteng | +27 11 442 8555<br>sebe@civilprojects.co.za |
| Mr. Sam Amod | Gauteng | sam@samamod.com |
| Adv. Sias Ryneke SC | Gauteng | 083 653 2281<br>reyneke@duma.nokwe.co.za |
| Mr. Emeka Ogbugo<br>(Quantity Surveyor) | Pretoria | +27 12 349 2027<br>emeka@gosiame.co.za |

| | | |
|---|---|---|
| W1.2(3) | The *Adjudicator nominating body* is: | **the Chairman of the Johannesburg Advocates Bar Council or his nominee or successor.** |
| W1.4(2) | The *tribunal* is: | **Arbitration** |
| W1.4(5) | The *arbitration procedure* is | **The arbitration procedure is set out in The Rules for the Conduct of Arbitrations 2013 Edition, 7th Edition, published by The Association of Arbitrators, (Southern Africa)** |
| | The place where arbitration is to be held is | **Johannesburg, South Africa** |
| | The person or organization who will choose an arbitrator | **The Arbitrator nominating body is the Chairman of the Johannesburg Advocates Bar Council or his nominee or successor.** |
| **12** | **Data for secondary Option** | |
| **X17** | **Low service damages** | **As per the Service Information (C3) – Annex B** |
| X17.1 | The *service level table* is in | **The Service Information, Annex B** |

| X18 | Limitation of liability | |
|---|---|---|
| X18.1 | The *Contractor*'s liability to the *Employer* for indirect or consequential loss is limited to | **Nil - Neither Party is liable to the other for any consequential or indirect loss, including but not limited to loss of profit, loss of income or loss of revenue** |
| X18.2 | For any one event, the *Contractor*'s liability to the *Employer* for loss of or damage to the *Employer*'s property is limited to | **Total of the losses incurred and/or repairs to the damages caused** |
| X18.3 | The *Contractor*'s liability for Defects due to his design of an item of Equipment is limited to | **Total of the losses incurred and/or repairs to the damages caused** |
| X18.4 | The *Contractor*'s total liability to the *Employer*, for all matters arising under or in connection with this contract, other than the excluded matters, is limited to | **The Contractor's total direct liability to the Employer for all matters arising under or in connection with this contract, other than the excluded matters, is limited to the total of the losses incurred and/or repairs to the damages caused and applies in contract, tort or delict and otherwise to the extent allowed under the law of the contract.**<br>**The excluded matters are amounts payable by the Contractor as stated in this contract for:**<br>- **Loss of or damage to the Employer's property,**<br>- **Defects liability,**<br>- **Insurance liability to the extent of the Contractor's risks**<br>- **death of or injury to a person;**<br>**infringement of an intellectual property right** |
| X18.5 | The *end of liability date* is | **The date on which the liability in question prescribes in accordance with the Prescription Act No. 68 of 1969 (as amended or in terms of any replacement legislation) for any other matter.** |

| X19 | Task Order | |
|---|---|---|
| X19.5 | The *Contractor* submits a Task Order programme to the *Service Manager* within 2 weeks after the starting date. | |

**Z(A): The Additional conditions of contract are: Z1-Z19**

| | Amendments to the Core Clauses |
|---|---|
| **Z1** | **Interpretation of the law** |
| **Z1.1** | **Add to core clause 12.3:** Any extension, concession, waiver, non-enforcement of any terms of the contract or relaxation of any action stated in this contract by the Parties, the *Service Manager*, the, or the *Adjudicator* does not constitute a waiver of rights, and does not give rise to an estoppel unless the Parties agree otherwise and confirm such agreement in writing. |
| **Z2** | **Providing the Service: Delete core clause 20.1 and replace with the following:** |
| **Z2.1** | The *Contractor* provides the *service* in accordance with the *Service* Information and warrants that the results of the *service*, when complete, shall be fit for their intended purpose. |
| **Z3.** | **Other responsibilities: add the following at the end of core clause 27:** |

**Z3.1** The *Contractor* shall have satisfied himself, prior to the *starting date*, as to the completeness, sufficiency and accuracy of all information and drawings provided to him as at the *starting date* .

**Z3.2** The *Contractor* shall be responsible for the correct setting out or carrying out of the *service* in accordance with the original points, lines and levels stated in the *Service* Information or notified by the *Service Manager*. Any errors in the setting or carrying out of the *service* shall be rectified by the *Contractor* at the *Contractor's* own costs.

**Z4. Termination**

**Z4.1** **Add the following to core clause 91.1, at the second main bullet, fourth sub-bullet point, after the words "assets or":** "business rescue proceedings are initiated or steps are taken to initiate business rescue proceedings".

**Z5.**

**Z5.1** **Ambiguities and inconsistencies: Delete core clause 17 and replace with the following:**
If there is any ambiguity or inconsistency in or between the documents which are part of this contract, the priority of the documents is in accordance with the following sequence:

- The additional conditions of contract under these Z clauses
- The conditions of contract and
- The other documents.

**Z5.2**

The Service Manager or the Contractor notifies the other as soon as either becomes aware of any such ambiguity or inconsistency in or between the documents which are part of this contract. The Service Manager gives an instruction resolving the ambiguity or inconsistency. Notwithstanding any other provision of this contract, any such ambiguity, inconsistency and/or instruction does not automatically result in any increase to the Price List or any

**Z6.** delay to the end of the service period.

**Payment: Add the following at the end of core clause 51:**

**51.5** The Employer does not pay interest to the Contractor on a late payment resulting from the Contractor's failure to provide the Employer with a correctly rendered VAT invoice within the period stated in clause 51.1 above.

**51.5** The Employer is entitled to deduct from or set off against any money due to the Contractor

- any sum due to the Employer from the Contractor or
- any amount for which the Contractor is liable to pay to the Employer (whether liquidated or otherwise) arising under this contract.

**Amendment to the Secondary Option Clauses**

**Z7. Changes in Law: Add the following clause to secondary option X2 as X2.2:**

**Z7.1** A change in law is defined as:

**Z7.1.1** the adoption, enactment, promulgation, coming into effect, repeal, amendment, reinterpretation, change in application or other modification after the starting date of any law, excluding (i) the promulgation of any bill, unless such bill is enacted into the *law of the country*, and (ii) any such modification in law relating to any taxes, charges, imposts, duties, levies or deductions that are assessed in relation to a person's income;

**Z7.1.2** any permit being terminated, withdrawn, amended, modified or replaced, other than (i) in accordance with the terms upon which it was originally granted, (ii) as a result of the failure by the *Contractor* to comply with any condition set out therein, or (iii) as a result of any act or omission of the *Contractor*, any Subcontractor or any affiliate to the *Contractor*.

**Z8. Performance Bond: The following amendments are made to clause X13:**

**Z8.1.** **Amend the first sentence of clause X13.1 to read as follows:** The *Contractor* gives the *Employer* an unconditional, on-demand performance bond, provided by a bank or insurer which the *Service Manager* has accepted in his or her discretion, for the amount stated in the Contract Data and in the form set out in Section C1.4 of this Contract Data.

**Z8.2.** **Add the following new clause as Option X13.2:** The *Contractor ensures* that the performance bond is valid and enforceable until the end of the *service period.* If the terms of the performance bond specify its expiry date and the end of the *service period* does not coincide with such expiry date, four weeks prior to the said expiry date, the *Contractor* extends the validity of the performance bond until the end of the *service period.* If the *Contractor* fails to so extend the validity of the performance bond, the *Employer* may claim the full amount of the performance bond and retain the proceeds as cash security

**Z9.** **Limitation of liability: Insert the following new clause as Option X18.6:**

**Z8.1** The *Employer's* liability to the *Contractor* for the *Contractor's* indirect or consequential loss or damage of any kind is limited to R0.00.

**Z8.2** Notwithstanding any other clause in this contract, any proceeds received from any insurances or any proceeds which would have been received from any insurances but for the conduct of the *Contractor* shall be excluded from the calculation of the limitations of liability listed in the contract.

**Additional Z Clauses**

**Z10.** **Cession, delegation and assignment**

**Z10.1.** The *Contractor* shall not cede, delegate or assign any of its rights or obligations to any person without the written consent of the *Employer*, which consent shall not be unreasonably withheld. This clause shall be binding on the liquidator/business rescue practitioner /trustee (whether provisional or final) of the *Contractor*.

**Z10.2.** The *Employer* may, on written notice to the *Contractor*, cede and delegate its rights and obligations under this contract to any person or entity.

**Z11.** **Joint and several liability**

**Z11.1.** If the *Contractor* constitutes a joint venture, consortium or other unincorporated grouping of two or more persons, these persons are deemed to be jointly and severally liable to the *Employer* for the performance of this Contract.

**Z11.2.** The *Contractor* shall, within 1 week of the starting date, notify the *Service Manager* and the *Employer* of the key person who has the authority to bind the *Contractor* on its behalf.

**Z11.3.** The *Contractor* does not materially alter the composition of the joint venture, consortium or other unincorporated grouping of two or more persons without prior written consent of the *Employer*.

**Z12.** **Ethics**

**Z12.1.** The *Contractor* undertakes:

**Z12.1.1.** not to give any offer, payment, consideration, or benefit of any kind, which constitutes or could be construed as an illegal or corrupt practice, either directly or indirectly, as an inducement or reward for the award or in execution of this contract;

**Z12.1.2.** to comply with all laws, regulations or policies relating to the prevention and combating of bribery, corruption and money laundering to which it or the *Employer* is subject, including but not limited to the Prevention and Combating of Corrupt Activities Act, 12 of 2004.

**Z12.2.** The *Contractor*'s breach of this clause constitutes grounds for terminating the *Contractor*'s obligation to provide the service in accordance with the procedures stated P2, P3 or P4 in core clause 92.2 or taking any other action as appropriate against the *Contractor* (including civil or criminal action). However, lawful inducements and rewards shall not constitute grounds for termination.

**Z12.3.** If the *Contractor* is found guilty by a competent court, administrative or regulatory body of participating in illegal or corrupt practices, including but not limited to the making of offers (directly or indirectly), payments, gifts, gratuities, commission or benefits of any kind, which are in any way whatsoever in connection with the contract

with the *Employer*, the *Employer* shall be entitled to terminate the contract in accordance with the procedures stated in core clause 92.2, the amount due on termination is A1.

**Z13. Confidentiality**

**Z13.1.** All information obtained in terms of this contract or arising from the implementation of this contract shall be treated as confidential by the *Contractor* and shall not be used or divulged or published to any person not being a party to this contract, without the prior written consent of the *Service Manager*, whose consent shall not be unreasonably withheld.

**Z13.2.** If the *Contractor* is uncertain about whether any such information is confidential, it is to be regarded as such until otherwise notified by the *Service Manager*.

**Z13.3.** This undertaking shall not apply to –

**Z13.3.1.** information disclosed to the employees of the *Contractor* for the purposes of the implementation of this contract. The *Contractor* undertakes to ensure that its employees are aware of the confidential nature of the information so disclosed and that they comply with the provisions of this clause;

**Z13.3.2.** information which the *Contractor* is required by law to disclose, provided that the *Contractor* notifies the *Employer* prior to disclosure so as to enable the *Employer* to take the appropriate action to protect such information. The *Contractor* may disclose such information only to the extent required by law and shall use reasonable efforts to obtain assurances that confidential treatment will be afforded to the information so disclosed;

**Z13.3.3.** information which at the time of disclosure or thereafter, without default on the part of the *Contractor*, enters the public domain or to information which was already in the possession of the *Contractor* at the time of disclosure (evidenced by written records in existence at that time);

**Z13.4.** The taking of images (whether photographs, video footage or otherwise) of the *services or Affected Property* or any portion thereof, in the course of providing the *services* or at the end of the service period requires the prior written consent of the *Service Manager*. All rights in and to all such images vests exclusively in the *Employer*.

**Z13.5.** The *Contractor* ensures that all his Subcontractors abide by the undertakings in this clause.

**Z14. *Employer*'s Step-in rights**

**Z14.1.** If the *Contractor* defaults by failing to comply with its obligations in terms of this contract and fails to remedy such default within 4 weeks of the notification of the default by the *Service Manager*, the *Employer*, without prejudice to its other rights, powers and remedies under the contract, or at law may remedy the default either, itself or procure a third party (including any subcontractor or supplier of the *Contractor*) to do so on its behalf. The reasonable costs of the Employer exercising its step-in rights in respect of any subcontractor or supplier of the *Contractor* shall be borne by the *Contractor*.

**Z14.2.** The *Contractor* co-operates with the *Employer* and facilitates and permits the use of all required information, materials and other matter (including but not limited to documents and all other drawings, CAD materials, data, software, models, plans, designs, programs, diagrams, evaluations, materials, specifications, schedules, reports, calculations, manuals or other documents or recorded information (electronic or otherwise) which have been or are at any time prepared by or on behalf of the *Contractor* under the contract or otherwise for and/or in connection with the *works*) and generally does all things required by the Service *Manager* to achieve this end.

**Z15. Liens and Encumbrances**

**Z15.1.** The *Contractor* keeps the Equipment used to provide the *service* free of all liens and other encumbrances at all times. The *Contractor,* vis-a-vis the *Employer,* waives all and any liens which he may from time to time have, or become entitled to over such Equipment and any part thereof and ensures that his Subcontractors similarly, vis-a-vis the *Employer,* waive all liens they may have or become entitled to over such Equipment from time to time

**Z16. Intellectual Property**

**Z15.1** Intellectual Property ("IP") rights means all rights in and to any patent, design, copyright, trade mark, trade name, trade secret, other intellectual or industrial property rights, technical information and concepts, know-how, specifications, data, formulae, computer programs, memoranda, scripts, reports, manuals, diagrams, drawings,

prototypes, drafts and any rights to them created during the performance of the service and include applications for and rights to obtain or use any such intellectual property whether under South African or foreign law.

**Z15.2** IP rights remain vested in the originator and shall not be used for any reason whatsoever other than carrying out the *service.*

**Z15.3** The *Contractor* gives the *Employer* an irrevocable, transferrable, non-exclusive, royalty free licence to use and copy all IP related to the *service* for the purposes of constructing, repairing, demolishing, operating and maintaining the *service* or *the Affected Property*.

**Z15.4** The written approval of the *Contractor* is to be obtained before the *Contractor*'s IP made available to any third party which approval will not be unreasonably withheld or delayed. Prior to making any *Contractor*'s IP available to any third party the *Employer* shall obtain a written confidentiality undertaking from any such third party on terms no less onerous than the terms the *Employer* would use to protect its IP.

**Z15.5** The *Contractor* shall indemnify and hold the *Employer* harmless against and from any claim alleging an infringement of IP rights (**"the claim"**), which arises out of or in relation to:

**Z15.5.1** the *Contractor's service*;

**Z15.5.2** the use of the *Contractor's* Equipment, or

**Z15.5.3** the proper use of the *Affected Property* on which the service is provided.

**Z15.6** The *Employer* shall, at the request and cost of the *Contractor*, assist in contesting the claim and the *Contractor* may (at its cost) conduct negotiations for the settlement of the claim, and any litigation or arbitration which may arise from it.

**Z17.** **Dispute resolution: The following amendments are made to Option W1:**

**Z16.1** **Under clause W1.3, in the fourth row of the first column of the adjudication table, the following words are added after the words "any other matter":** "excluding disputes relating to termination of the contract".

**Z16.2** **The following clauses are added at the end of clause W1.3 as sub-clauses (12) and (13) respectively:**

**Z16.2.1** "The Adjudicator shall decide the dispute solely on the written submissions of the parties. No oral submissions shall be heard during adjudication."

**Z16.2.2** "Disputes relating to or arising from termination of the Contract shall not be determined by an adjudicator. Any such dispute shall be referred directly to the tribunal in accordance with the procedures set out in clause W1.4."

**Day:**

**Z17**

Any reference to a day in terms of this contract shall be construed as a calendar day.

**Z17.1**

**Safety**

**Z18**

The *Employer*, *Service Manager* or any of his nominated representatives may stop any unsafe *service*. The

**Z18.1** *Contractor* does not proceed with the relevant service until the safety violation is corrected. This instruction to stop or not to start the *service* is not a compensation event.

As stipulated by section 37(2) of the Occupational Health and Safety Act No. 85 of 1993 (**OHS Act)** as amended

**Z18.2** the Contractor agrees to the following:

As part of the contract the *Contractor* acknowledges that it is an Employer in its own right with duties as prescribed

Z18.2.1 in the OHS Act, as amended and agrees to ensure that all work performed, or equipment and materials used, are

in accordance with the provisions of the OHS Act.

Z18.2.2 The *Contractor* furthermore agrees to comply with the requirements set forth by the *Service Manager* and agree to liaise with the *Employer* should the *Contractor*, for whatever reason, be unable to perform in terms of the clause Z18.

**Z18.3** The *Contractor* acknowledges that it is an *Employer* in its own right and is registered with duties as prescribed in the Compensation for Occupational Injuries & Diseases Act No. 130 of 1993.

Z18.4 Any availability less than 80% for six consecutive months (which is the entirely the contractor's fault) will lead to contract termination.

**C1.2 b - DATA PROVIDED BY THE *CONTRACTOR***

| Clause | Statement | Data |
|---|---|---|
| 10.1 | The Contractor is (Name): | |
| | Company Registration Number | |
| | Company VAT Number | |
| | Address | |
| | Telephone no. | |
| | Fax No. | |
| 11.2 | The *working areas* are | See C3 'Service Information' |
| 24.1 | The *Contractor's Key people* are: | **CV's to be appended to Resource Proposal** |
| **1** | **Artisan** | |
| | Name: | |
| | Qualifications relevant to this contract | |
| | Experience | |
| **2** | **Artisan's Assistant** | |
| | Name: | |
| | Qualifications relevant to this contract | |

| | | |
|---|---|---|
| | Experience | |
| 11.2 | The following matters will be included in the Risk Register | 1. Unavailability of Spares<br>2. Disruption in passenger flow due to faults on the power reticulation network (MV&LV)<br>3. Injuries to personnel and all airport users due to faulty electrical equipment/apparatus |

C1.3 Occupational Health and Safety Agreement

**OCCUPATIONAL HEALTH AND SAFETY AGREEMENT**

**AGREEMENT IN TERMS OF SECTION 37(2) OF THE OCCUPATIONAL HEALTH & SAFETY ACT (ACT 85 Of 1993) & CONSTRUCTION REGULATION 5.1(k)**

**OBJECTIVES**

To assist Airport Company South Africa (ACSA) in order to comply with the requirements of:

1. The Occupational Health & Safety (Act 85 of 1993) and its regulations and

2. The Compensation for Occupational Injuries & Diseases Act (Act 130 of 1993) also known as the (COID Act).

**To this end an Agreement must be concluded before any contractor/ subcontracted work may commence**

**The parties to this Agreement are:**

| |
|---|
| **Name of Organization:**<br>**AIRPORTS COMPANY SOUTH AFRICA**<br>**UPINGTON INTERNATIONAL AIRPORT** |
| **Physical Address:**<br>**Upington International Airport**<br>**ACSA Administration Office**<br>**Diedericks Street**<br>**Upington**<br>**8800** |

**Hereinafter referred to as "Client"**

| |
|---|
| **Name of organisation:** |
| **Physical Address:** |

**Hereinafter referred to as "the Mandatary/ Principal Contractor"**

**MANDATORY'S MAIN SCOPE OF WORK**

_____

_____

_____

_____

**GENERAL INFORMATION FORMING PART OF THIS AGREEMENT**

1. The Occupational Health & Safety Act comprises of SECTION 1-50 and all unrepealed REGULATIONS promulgated in terms of the former Machinery and Occupational Safety Act No.6 of 1983 as amended as well as other REGULATIONS which may be promulgated in terms of the Act and other relevant Acts pertaining to the job in hand.

2. "Mandatary" is defined as including as agent, a principal contractor or a contractor for work, but WITHOUT DEROGATING FROM HIS/HER STATUS IN HIS/HER RIGHT AS AN EMPLOYER or user of the plant

3. Section 37 of the Occupational Health & Safety Act potentially punishes Employers (PRINCIPAL CONTRACTOR) for unlawful acts or omissions of Mandataries (CONTRACTORS) save where a Written Agreement between the parties has been concluded containing arrangements and procedures to ensure compliance with the said Act BY THE MANDATARY.

4. All documents attached or refer to in the above Agreement form an integral part of the Agreement.

5. To perform in terms of this agreement Mandataries must be familiar and conversant with the relevant provisions of the Occupational Health & Safety Act 85 of 1993 (OHS Act) and applicable Regulations.

6. Mandatories who utilise the services of their own Mandatories (contractors) must conclude a similar Written Agreement with them.

7. Be advised that this Agreement places the onus on the Mandatary to contact the CLIENT in the event of inability to perform as per this Agreement.

8. This Agreement shall be binding for all work the Mandatary undertakes for the client.

9. All documentation according to the Safety checklist including a copy of the written Construction Manager appointment in terms of construction regulation 8, must be submitted 7 days before work commences.

**THE UNDERTAKING**

The Mandatary undertakes to comply with:

**INSURANCE**

1. The Mandatary warrants that all their employees and/or their contractor's employees if any are covered in terms of the COID Act, which shall remain in force whilst any such employees are present on the Client's premises. A letter is required prior commencing any work on site confirming that the Principal contractor or contractor is in good standing with the Compensation Fund or Licensed Insurer.

2. The Mandatary warrants that they are in possession of the following insurance cover, which cover shall remain in force whilst they and /or their employees are present on the Client's premises, or which shall remain in force for that duration of their contractual relationship with the Client, whichever period is the longest.

a. Public Liability Insurance Cover as required by the Subcontract Agreement.

b. Any other Insurance cover that will adequately makes provision for any possible losses and/or claims arising from their and /or their Subcontractors and/or their respective employee's acts and/or omissions on the Client's premises.

**COMPLIANCE WITH THE OCCUPATIONAL HEALTH & SAFETY ACT 85 OF 1993**

The Mandatary undertakes to ensure that they and/or their subcontractors if any and/or their respective employees will at all times comply with the following conditions:

1. All work performed by the Mandatary on the Client's premises must be performed under the close supervision of the Mandatary's employees who are to be trained to understand the hazards associated with any work that the Mandatary performs on the Client's premises.

2. The Mandatary shall be assigned the responsibility in terms of Section 16(1) of the OHSAct 85 of 1993, if the Mandatary assigns any duty in terms of Section 16(2), a copy of such written assignment shall immediately be forwarded to the Client.

3. The Mandatary shall ensure that he/she familiarise himself/herself with the requirements of the OHS Act 85 of 1993 and that s/he and his/her employees and any of his subcontractors comply with the requirements.

4. The Mandatary shall ensure that a baseline risk assessment is performed by a competent person before commencement of any work in the Client's premises. A baseline risk assessment document will include identification of hazards and risk, analysis and evaluation of the risks and hazards identified, a documented plan and safe work procedures to mitigate, reduce or control the risks identified, and a monitoring and review plan of the risks and hazards.

5. The Mandatary shall appoint competent persons who shall be trained on any Occupational Health & Safety aspect pertaining to them or to the work that is to be performed.

6. The Mandatary shall ensure that discipline regarding Occupational Health & Safety shall be strictly enforced.

7. Any personal protective equipment required shall be issued by the Mandatary to his/her employees and shall be worn at all times.

8. Written safe working practices/procedures and precautionary measures shall be made available and enforced and all employees shall be made conversant with the contents of these practises.

9. No unsafe equipment/machinery and/or articles shall be used by the Mandatary or contractor on the Client's premises.

10. All incidents/accidents referred to in OHSAct shall be reported by the Mandatary to the Provincial Director: Department of Labour as well as to the Client.

11. No use shall be made by the Mandatary and/or their employees and or their subcontractors of any of the Client's machinery/article/substance/plant/personal protective equipment without prior written approval.

12. The Mandatary shall ensure that work for which the issuing of permit is required shall not be performed

prior to the obtaining of a duly completed approved permit.

13. The Mandatary shall ensure that no alcohol or any other intoxicating substance shall be allowed on the Client's premises. Anyone suspected to be under the influence of alcohol, or any other intoxicating substance shall not be allowed on the premises. Anyone found on the premises suspected to be under the influence of alcohol or any other intoxicating substance shall be escorted off the said premises immediately.

14. Full participation by the Mandatary shall be given to the employees of the Client if and when they inquire into Occupational Health & Safety.

**FURTHER UNDERTAKING**

1. Only a duly authorised representative appointed in terms of Section 16.2 of the OHS Act is eligible to sign this agreement on behalf of the Mandatary. The signing power of this representative must be designated in writing by the Chief Executive Officer of the Mandatary. A copy of this letter must be made available to the Client.

2. The Mandatary confirms that he has been informed that he must report to the Client's management, in writing anything he/she deems to be unhealthy and /or unsafe. He has versed his employees in this regard.

3. The Mandatary warrants that he/she shall not endanger the health & safety of the Client's employees and other persons in any way whilst performing work on the Client's premises.

4. The Mandatary understands that no work may commence on the Client's premises until this procedure is duly completed, signed and received by the Client.

5. Non-compliance with any of the above clauses may lead to an immediate cancellation of the contract.

**ACCEPTANCE BY MANDATARY**

In terms of section 37(2) of the Occupational Health & Safety Act 85 of 1993 and section 5.1(k) of the Construction Regulations 2014,

I ……a duly authorised 16.2 Appointee acting for and on behalf of

……(company name) undertake to ensure that the requirements and the provision of the OHS Act 85 of 1993 and its regulations are complied with.

Mandatary – WCA/ Federated Employers Mutual No…….

Expiry date …….

_____ _____

**SIGNATURE ON BEHALF OF MANDATARY** **DATE**
(Warrant his authority to sign)

_____ _____

**SIGNATURE ON BEHALF OF THE CLIENT** **DATE**
**AIRPORT COMPANY SOUTH AFRICA**

## C1.4 Forms of Securities

***No performance bond or parent company guarantee is required in this contract***

C1.5 ACSA Insurance Clause

## INSURANCE CLAUSE FOR OPEX PROJECTS AND NON-CONSTRUCTION CAPEX PROJECTS ON THE LANDSIDE

*The successful bidder must source the following insurance cover, which is the deductible in the ACSA insurance cover:*

- *Aviation liability insurance cover for an indemnity limit not less than R100 000 (one hundred thousand rands).*
- *Submit proof of insurance to ACSA before the work starts, and annually for the duration of the project.*

## INSURANCE CLAUSE FOR OPEX PROJECTS AND NON-CONSTRUCTION CAPEX PROJECTS ON THE AIRSIDE

*The successful bidder must source the following insurance cover, which is the deductible in the ACSA insurance cover:*

- *Aviation liability insurance cover for an indemnity limit not less than R300 000 (three hundred thousand rands).*
- *Submit proof of insurance to ACSA before the work starts, and annually for the duration of the project.*

Where the project covers **both landside and airside**, only the airside clause will apply.

The following persons/insurers must be advised immediately on the occurrence of a claim on site or even a possibility of a claim arising due to an incident occurring on site: Airports Company South Africa:

Nokulunga Masiza
Tel: +27 (0)11 723 1400
M: +27 (0)79 512 0532
Nokulunga.Masiza@airports.co.za

Buhle Mnguni
D: +27 (0)11 723 1400
M: +27 (0)74 535 9075
Buhle.Mnguni@airports.co.za

## C2.1 Pricing assumptions: Option A

**The *conditions of contract***

**How work is priced and assessed for payment**

Clause 11 in NEC3 Term Service Contract, April 2013 (TSC3) core clauses and Option A states:

| | | |
|---|---|---|
| **Identified and defined terms** | 11<br>11.2 | (12) The Price List is the *price list* unless later changed in accordance with this contract.<br><br>(17) The Price for Services Provided to Date is the total of<br><br>the Price for each lump sum item in the Price List which the *Contractor* has completed and<br>where a quantity is stated for an item in the Price List, an amount calculated by multiplying the quantity which the *Contractor* has completed by the rate.<br><br>(19) The Prices are the amounts stated in the Price column of the Price List. Where a quantity is stated for an item in the Price List, the Price is calculated by multiplying the quantity by the rate. |

This confirms that Option A is a priced contract where the Prices are derived from a list of items of service which can be priced as lump sums or as expected quantities of service multiplied by a rate or a mix of both. Where it is contemplated that the Price List represents the type of work, quantity and cost thereof which may or not be selected by the Employer, it is important to ensure that service items listed do not create liability on a daily basis if that is not the intention. For example, if the service is maintenance of an installation on an ad hoc or call-off basis which may require the Contractor to be on standby but not permanently on the Affected Property, avoid listing service items which may be treated as preliminary and general (P&Gs) items, whether fixed or time-related such as contractual requirements, establishing on site, offices, storage, ablutions, water supplies, power supply, telecommunications. The Price List should align with the intention of the contract and selection of Option X 19 should be considered. If the Contractor is required to price P&G items ensure that the tender, contract and Price List provides clearly that daily charges are applicable only as necessitated by the specific activity and authorised by the Service Manager. Particular care should be taken when utilising SANS 1200 as a guide for tenderers or for preparing templates for Price Lists in tenders. Avoid referring to the Price List as the Activity Schedule.

**Function of the Price List**

Clause 54.1 in Option A states: “Information in the Price List is not Service Information”. This confirms that instructions to do work or how it is to be done are not included in the Price List but in the Service Information. This is further confirmed by Clause 20.1 which states, “The *Contractor* Provides the Service in accordance with the Service Information”. Hence the *Contractor* does **not** Provide the Service in accordance with the Price List. The Price List is only a pricing document.

**Link to the *Contractor*’s plan**

Clause 21.4 states “The *Contractor* provides information which shows how each item description on the Price List relates to the operations on each plan which he submits for acceptance”. Hence when compiling the *price list*, the tendering contractor needs to develop his first clause 21.2 plan in such a way that operations shown on it can be priced in the *price list* and result in a satisfactory cash flow in terms of clause 11.2(17).

**Preparing the *price list***

It will be assumed that the tendering contractor has read Pages 14, 15 and 76 of the TSC3 Guidance Notes before preparing the *price list*. Items in the *price list* may have been inserted by the *Employer* and the tendering contractor should insert any additional items which he considers necessary. Whichever party provides the items in the *price list* the total of the Prices is assumed to be fully inclusive of everything necessary to Provide the Service as described at the time of entering into this contract.

1 As the *Contractor* has an obligation to correct Defects (core clause 42.1) and there is no compensation event for this unless the Defect was due to an *Employer’s* risk, the lump sum Prices and rates must also include for the correction

of Defects.

2 If the *Contractor* has decided not to identify a particular item in the *price list* at the time of tender the cost to the *Contractor* of doing the work must be included in, or spread across, the other Prices and rates in the *price list* in order to fulfil the obligation to complete the *service* for the tendered total of the Prices.

3 There is no adjustment to lump sum prices in the *price list* if the amount, or quantity, of work within that lump sum item of service later turns out to be different to that which the *Contractor* estimated at time of tender. The only basis for a change to the Prices is as a result of a compensation event. See Clause 60.1.

4 Hence the Prices and rates tendered by the *Contractor* in the *price list* are inclusive of everything necessary and incidental to Providing the Service in accordance with the Service Information, as it was at the time of tender, as well as correct any Defects not caused by an *Employer's* risk.

5 The Contractor does not have to allow in his Prices and rates for matters that may arise as a result of a compensation event. It should be noted that the list of compensation events includes those arising as a result of an *Employer's* risk event listed in core clause 80.1.

**Format of the *price list***

(From page 76 of the TSC3 Guidance Notes)

Entries in the first four columns in the *price list* in section C2.2 are made either by the *Employer* or the tendering contractor.

If the *Contractor* is to be paid an amount for the item which is not adjusted if the quantity of work in the item changes, the tendering contractor enters the amount in the Price column only, the Unit, Expected Quantity and Rate columns being left blank.

If the *Contractor* is to be paid an amount for an item of work which is the rate for the work multiplied by the quantity completed, the tendering contractor enters the rate which is then multiplied by the Expected Quantity to produce the Price, which is also entered.

If the *Contractor* is to be paid a Price for an item proportional to the length of time for which a service is provided, a unit of time is stated in the Unit column and the expected length of time (as a quantity of the stated units of time) is stated in the Expected Quantity column.

AIRPORTS COMPANY SOUTH AFRICA

C2.2 Price List

The following Activity Schedule is provided "as-is" for the benefit of the Bidder. ACSA (the Employer) cannot guarantee that it is complete in all respects. The Bidder is responsible for providing an Activity Schedule which is accurate, complete and in accordance with their proposal. Also, refer to C3 (Service information) for activities that need to be priced. Only items listed in this Activity Schedule may be billed to the Employer.

**PRICING DATA**

**The following Pricing schedule is provided "as-is" for the benefit of the Bidder. ACSA cannot guarantee that it is complete in all respects. The Bidder is responsible for providing a Pricing schedule which is accurate, complete and in accordance with their proposal. Also, refer to scope of work for activities that need to be priced. Only items listed in this Pricing schedule may be billed to the Employer**

## Upington International Airport

**Part 1: Preventative Maintenance**

| No. | Item | Frequency | Qty | Unit Price (R) | Total (R) |
|---|---|---|---|---|---|
| 1 | Contract Management and administration (including required reporting such as service reports, spares inventory management reports, office overheads, etc.). | Annually | 1 | R | R |
| 2 | Safety File, in accordance with OHS Act of 1993 and the Construction Regulation of 2014.<br>Note: Please note that should the service provider currently have an approved Safety File on record with ACSA, no cost provision is required unless the Safety File needs to be updated. | Once-off | 1 | R | R |
| 3 | Insurance (All ACSA required insurance) | Annually | 1 | R | R |
| 4 | Airport personnel access permits, airport vehicle access permits and parking fees. | Once-off | 1 | R 5000 | R 5000 |
| 5 | Preventative Maintenance – All Transformer Units **(Refer to Annextures A & G)** | Annually | 6 | R | R |
| 6 | Transformer Oil Sampling and Analysis | Annually | 7 | R | R |
| 7 | Preventative Maintenance – All MV Switchgear Units **(Refer to Annextures A; G & H)** | Annually | 8 | R | R |
| 8 | Preventative Maintenance - Power Factor Correction Equipment (PFC) **(Refer to Annexture G)** | Annually | 1 | R | R |
| 9 | Preventative Maintenance - Mini substations (MSB) **(Refer to Annextures A & G)** | Annually | 5 | R | R |
| 10 | Preventative Maintenance - Ring Main Unit (RMU) **(Refer to Annextures A & G)** | Annually | 6 | R | R |
| 11 | Preventative Maintenance – LV Switchboard **(Refer to Annextures A & G)** | Annually | 5 | R | R |
| | **Total Cost Part 1: Preventative Maintenance Excl. VAT** | | | **R** | |

***The bidder must ensure to go through the schedule of equipment and maintenance program to accurately price the Bill of Quantities**

AIRPORTS COMPANY SOUTH AFRICA

**Part 2: Corrective maintenance**
Any work not included under Part 1 shall be deemed Corrective maintenance (additional/non-scheduled work) and will be charged at the following rates:

**Labour**

| Item | Description | Normal hours (R/hour) | After hours (R/hour) | Sundays/public holidays (R/hour) |
|---|---|---|---|---|
| 1 | Electrician | **R** | **R** | **R** |
| 2 | Electrician's Assistant | **R** | **R** | **R** |
| 3 | OEM Specialist | **R** | **R** | **R** |

All rates to exclude vat. Subject to agreement between ACSA and the Contractor, the number of staff allocated to the contract may be increased/decreased to cater for special needs that may arise from time to time. labour rates shall include all personnel insurance, holidays with pay, incentive bonuses. No labour shall be charged for travel or travelling. Labour time shall be calculated for the time spent on site.

**Call-outs/Task Orders**

| Description | Rate | Qty | Total |
|---|---|---|---|
| Call-out fee (normal hours): Includes first hour on site and travelling cost | R | 6 | R |
| Call-out fee (after hours): Includes first hour on site and travelling cost | R | 6 | R |
| Call-out fee (Sunday/Public holiday): Includes first hour on site and travelling cost | R | 6 | R |
| **Sub-Total B: Call-outs (per annum)** | | | **R** |

Callouts rate must include all required travelling and the first hour on site.
Call out fee shall not be applicable when contractors are onsite.
After hours rate shall be applicable for callouts outside normal working hours (08H00-17H00)

## Spares

| Description | Total including mark-up | |
|---|---|---|
| Spares and other third-party procured items or services | **Provisional sum** | **R 150 000** |
| **Sub-Total C: Spares (per annum)** | | **R** |

**Mark-up (third party procured items or services)**

| Cost | Mark-up |
|---|---|
| R 0.01 – R 5 000 | **%** |
| R 5 001 – R 10 000 | **%** |
| Greater than R 10 000 | **%** |

Cost shall be net cost (including VAT) of parts delivered to site with all discounts deducted. The third party's quote/invoice shall be presented when submitting quotes for approval.

## Contract value

Below is the guide that must be used in estimating the contract value. This amount must be reported as the Contract Value in the corresponding schedules. Bidders are reminded that this amount is for illustrative purposes only and that ACSA will not be under any obligation to expend the full or any portion of this amount. Monthly contract expenditure will be strictly calculated according to the Activity Schedule as provided above

**Preventative and Corrective Maintenance of Power Reticulation network (MV & LV)**

| **Description** | **Total (excluding VAT)** |
|---|---|
| Sub-Total A: Preventative maintenance | **R** |
| Sub-Total B: Callouts/Task Orders | **R** |
| Sub-Total C: Spares | **R 150 000** |
| **Sub-Total D**: Estimated total (per annum) (Sub-Total A + Sub-Total B + Sub-Total C) | **R** |

**Expenditure over 5-year contract, including annual CPI price adjustments (As per Statistic SA)**

| **Description** | **Total (excluding VAT)** |
|---|---|
| Sub-total D: Year 1 (from above) | R |
| Sub-total E: Year 2 (year 1 plus 6% CPI escalation) | R |
| Sub-total F: Year 3 (year 2 plus 6% CPI escalation) | R |
| 3-years estimated contract value (excluding Vat) | R |
| Add 15% Vat | R |
| Estimated contract value for 3-years* | R |

***This amount to be carried over to Form of Offer and Acceptance.**

Contract values will be increased/decreased according to the current indices stipulated in Statistic SA – Consumer Price Indices- All income groups. **6% escalation should be used for illustrative purposes**

AIRPORTS COMPANY
SOUTH AFRICA

C3 Service Information

**DESCRIPTION OF THE WORKS**

The objective is to maintain the serviceability of the electrical reticulation network by conducting preventative and corrective maintenance for a period of Thirty six (36) months at Upington International Airport in a sustainable manner at the lowest operating and maintenance costs while ensuring electrical compliance to the SANS 10142, this request is furthermore guided by the Maintenance of Aerodrome Electrical Systems (D060 023M) and Maintenance of 11kV SF6, Vacuum Circuit Breakers Maintenance (D060 018M) which defines the specific maintenance activities to be carried out and followed to ensure that all infrastructure is effectively maintained in accordance with applicable policies, regulations, standards and general safety and aviation related legislation. The brief scope of work is summarized below:

Planned maintenance and repairs will cover the following electrical infrastructure:

**MV Switchgear** -11KV (including sub-components, MV Board Housing Panel, Bus-Bar Conductors, Cabling and Termination Accessories, Circuit breakers, Instrument Transformers, Metering Equipment, Protection Equipment (Relays, Transducers, Communication Devices etc, Indication Lighting,
Ring Main Units (including sub-components)

**LV Switchboards**
The contractor will be responsible for servicing, testing and repairs of Air Circuit Breakers (ACBs). Replacement of moulded case circuit breakers (MCCBs), miniature circuit breakers (MCBs), fuses, power meters, changeover switches, etc.)

**Power Transformers**
The contractor will be responsible for servicing, testing and repairs of all site transformers. The contractor will further be required to perform annual oil sampling, analysis and oil changes as and when required.

**Mini substations**
The contractor will be responsible for servicing, testing and repairs of all Mini substations. The contractor will further be required to perform annual oil sampling, analysis and oil changes as and when required.

**Ring Main Units**
The contractor will be responsible for servicing, testing and repairs of all RMU's.

**Power Factor Correction (PFC)**
The contractor will be responsible for servicing, testing and repairs of PFC equipment (including capacitors, controllers, circuit breakers, fuses, manual/off/auto selector switches, detuned reactors, etc.)

**Battery Tripping Unit (BTU)**
The contractor will be responsible for servicing and testing and repairs of the Battery Tripping Unit.

**Infrared Scanning** – All Transformers, Switchgear, and Busbars

**Supply of spares**
Inventory as and when required and management

**Repairs** – Responding to breakdowns, callouts, and restoring the equipment to a safe working condition in a timely manner.

**Servicing** – Performing routine preventative maintenance as prescribed by the original equipment manufacturer (OEM), ACSA planned maintenance routines and applicable legal and designed standards.

**System performance test** – Testing equipment performance against the OEM and statutory requirements or compliance and return to service purposes. Testing is to include such tests as insulation, injection, partial discharge, infra-red, mechanical, HV, ultra-sound, di-electric, function, phase sequence, polarity, temperature rise, or whichever tests is applicable and required to the class of equipment under consideration.

**Service reports**

When invoicing, the Contractor shall ensure that all required reports for the corresponding service are attached to the invoice. This will include service reports on:

- Maintenance work (including % of scheduled maintenance work completed)
- Maintenance plan for the next service
- Asset register up to date including equipment data
- Outstanding maintenance issues
- Findings from the previous service
- Recommended improvement opportunities

**Failure Reports**

After every incidence or failure which warrants a call out, the contractor shall provide the Employer with a comprehensive equipment failure report. The report should at a minimum describe the incidence, the root cause resulting with the failure, the intervention undertaken to return the MV/LV Switchgear and Transformers to service, and all future actions that need to be undertaken to return the unit to a healthy state/condition.

**Methods and procedures**

The Contractor must accept and respect the fact that the Airport is continuously undergoing construction and improvement and that a variety of stakeholders are involved in ACSA's business. Therefore, within reason and with prior arrangement with the Contractor, ACSA might require the following from time to time:

- Assisting with emergency repairs
- Assisting with airport operations
- Re-scheduling of work to accommodate other contractors
- Allowing access and aiding OEM suppliers to correct defects on equipment and/or systems
- Pointing out services to consultants or other contractors
- Providing access to other contractors
- Attending co-ordination and planning meetings
- Removing rubble and/or equipment from site relating to this contract
- Training of ACSA operators and/or technicians
- Providing of system data and/or statistics to ACSA
- Recommending improvements on maintenance procedures
- Recommending improvements on operational procedures
- Co-operating with ACSA Security relating to security issues

The ACSA Service Manager may instruct operational and works procedures to the Contractor as might be required from time to time. The Contractor will instruct his/her staff accordingly and implement measures to ensure that these procedures are strictly adhered to
The Contractor shall be fully responsible for meeting all requirements in this document regarding the Works.

For each piece of equipment, all work will be carried out to standards as required by the Original Equipment Manufacturer (OEM) as well as any applicable governing law and/or regulations. Where OEM standards differ from

those required by this document the more stringent requirement shall apply. The Contractor shall be fully responsible for obtaining (and keeping up to date with) said requirements.

The Contractor shall be responsible for providing staff which are sufficiently skilled and qualified for successful execution of the works. The Contractor shall comply with the Minimum Staffing Schedule always – as stipulated in the Annexes. This may be amended by mutual arrangement between the Employer and the Contractor from time to time.

The Contractor shall ensure that his/her staff compliment is of a sufficient quantity to allow for uninterrupted supply of labour in the event of his/her staff taking sick leave, paid leave and will allow for all staff related eventualities.

The Contractor shall continuously ensure that all staff is suitable, able, and competent for the duties required of them. The Contractor shall continuously ensure that all staff is knowledgeable and dependable in Electrical MV/LV maintenance activities/procedures in the area. The Contractor shall further ensure that any staff member reasonably suspected of partaking in criminal activities is immediately removed from site and their permit returned to and/or cancelled at the ACSA Permit Office.

All work shall be performed within the required Response Times – as stipulated in the Annexes. Any breakdown impacting on operations shall be attended-to until restored to good reliable condition. No breakdown may be left unattended or incomplete for the next day or shift. All repair work shall carry a defect free guarantee for a period of 3 months after completion of work.

All work shall be charged according to the Activity Schedule; however, no labour shall be charged for any non-scheduled work, repair work or other work when carried out by a scheduled maintenance shift.

The Contractor shall be responsible for keeping spares levels up to a sufficient quantity and standard as to comply with the requirements of this contract and will charge the Employer accordingly. All spares will be

The Contractor shall be responsible for holding all tools and/or special equipment that might be required for the execution of the works, either on site or on their premises in order to comply with the Response Time requirements of this contract. Any exclusion to the above should be clearly communicated in the returnable schedules when submitting the tender.

The Contractor shall ensure that, unless a special arrangement is made with the Service Manager, all senior staff members and on-site support staff is always immediately reachable via cell phone.

The Contractor shall ensure that all maintenance staff are issued with uniforms that will comply with a minimum requirement as agreed with the Service Manager from time to time. Current airport requirements are safety shoes and a uniquely numbered reflective jacket (for easy identification via CCTV).

**Location of the works**
The Works are located at Upington International Airport – mostly in controlled areas. Refer to Annex. A

**PROCUREMENT**

Preferential procurement procedures
Requirements
The Contractor shall respect OEM warrantees to the Employer when procuring spare parts, products, or 3rd party services. It will be the Contractor's sole responsibility to ensure that OEM warranty requirements are always adhered to.

Where Contractors use or quote on spare parts of a lower quality than recommended by the OEM, or parts not recommended by the OEM, this shall be clearly indicated to the Service Manager on the quotation. This also implies that the Contractor must build relationships with the various key OEM's.

The Contractor must adhere to all airport requirements regarding fire, health and safety when procuring replacement spares.

No casual labour (i.e. “off the street” labour) may be employed by the Contractor unless pre-arranged with the Employer. Whenever this is required, the Contractor shall come to a suitable arrangement with the Employer regarding sourcing and screening of such individuals.

**MANAGEMENT**

**Management of the works**
Particular / generic specifications
All work shall conform to all relevant SANS standards, OHS ACT regulations and all other legislation that might be relevant to this Contract and the execution thereof.

All work shall be carried out in accordance with prevailing industry norms and best practice and will always comply with OEM requirements.

**Planning and programming**
All maintenance work shall be scheduled, and a roster presented to the Service Manager at the end of the preceding month. Work shall be scheduled in a manner as not to interfere with any normal airport operations.
.

As a minimum requirement, the Contractor shall roster scheduled preventative maintenance activities.

Maintenance teams will attend to scheduled preventative maintenance, non-scheduled maintenance, and breakdown maintenance. The Contractor must ensure that no scheduled maintenance work is carried over to the following week.

All Preventative Maintenance shall be scheduled, at least, to the requirements of the annexures (The Contractor must ensure that sufficient allowances for all these items are made with his/her pricing in the Activity Schedule.)

The Service Manager may instruct operational and works procedures to the Contractor as might be required from time to time. The Contractor shall instruct his/her staff accordingly and implement measures to ensure that these procedures are strictly adhered to.

**Quality plans and control**
All work must be executed in accordance with prevailing industry norms and standards relating to quality. In this regard, the Contractor will be expected to draft quality plans for the Service Manager from time to time. Emphasis must be on improving system reliability and on ensuring that rostered maintenance work is indeed performed as and when required.

**Environment**
The Contractor will keep noise and dust levels to a minimum. At no time, shall his/her work result in nuisance, interference, or danger to the public or any other person working at the Airport.

At no time, shall the Contractor:
- allow any pollutive or toxic substance to be released into the air or storm water systems
- interfere with, or put at risk, the functionality of any system or service
- cause a fire or safety hazard

**Format of communications**

Work instructions, daily check sheets, monthly maintenance reports, inventory reports, breakdown reports, exception reports, etc. will all be in a format as agreed with the Service Manager.

**Key personnel**
A schedule of key personnel to this Contract (as per the Schedules) will be provided to the Service Manager at commencement of this Contract. This will, as a minimum, include all persons from technician level to management level. For the full duration of this Contract, none of these persons will be replaced by a person of lesser ability or qualification. All on-site staffs' leave shall be reported and agreed with the Service Manager.

**Management meetings**
The Contractor will be expected to attend meetings relating to maintenance, operations, contract management and other issues that may arise from time to time. As far as is practicable, the Contractor will make all required persons available for these meetings. The Contractor shall not submit claims for payment for staff attending any of these meetings.

**Electronic payments**
The Contractor should arrange with the Employer's finance department for making all payments electronically.

**Permits**
The Contractor shall be compensated for costs relating to the Employer's required permits, however, not for labour/time spent in obtaining it.

The Contractor must ensure that he/she is, always, familiar with the Employer's safety and security requirements relating to permits so that no work is delayed as a result thereof. This will include the permit application process.

Note that the Contractor will have no claim against the Employer if a permit request is refused.

The following table is provided for illustration purposes, not all permits listed may be required for this service:

| Permit | Required by/for | Department |
|---|---|---|
| AVOP – Airside Vehicle Operator permit | All drivers of vehicles on airside | ACSA Safety |
| Airside Vehicle Permit | All vehicles that enter airside | ACSA Safety |
| Basement Parking permit | All vehicles allowed to enter the delivery basement | ACSA Parking |
| Personal permit | All persons employed on the airport | ACSA Security |
| Cell phone permit | All persons taking cell phones to airside | ACSA Security |
| Lap top permit | All persons taking lap top computers to airside | ACSA Security |
| Camera permit | All persons taking cameras or camera equipment to airside | ACSA Security |
| Hot Works Permit | All welding and/metal cutting work | ACSA Safety |

Proof of having attended the airside induction training course is required for all personal permit applications. Persons applying for an AVOP must provide proof of having attended an AVOP course. Fees are levied for these courses. Fees are further levied for all permit renewals and refresher courses - where applicable.

**Proof of compliance with the law**
The Service Manager may at any time request from the Contractor reasonable proof that the Contractor is in compliance with a law or regulation.

**Health and safety**
**Health and safety requirements and procedures**
The Service Manager shall be entitled to fine the Contractor low service damages for each non-conformance to Health and Safety matters. This shall not transfer any of the Contractor's responsibilities in this regard to the Employer by any means.

The Contractor shall be fully responsible for compliance to the Occupational Health and Safety Act for all persons, equipment and installations relating to this Contract. The Contractor is expected to sign the undertaking in this regard as attached in the annexes.
It shall be the Contractor's responsibility to ensure that all relevant labour and safety legislation is adhered to in rostering staff.

All persons on company premises shall obey all health and safety rules, procedures, and practices. NO SMOKING signs and the prohibition of the carrying of smoking materials in designated areas shall always be obeyed. A copy of the Safety Rules booklet is available on request from the ACSA Safety Department.

All the applicable requirements of the Occupational Health and Safety Act (1993) and Regulations and any amendments thereto, shall be met. Where the OHS Act prescribes certification of competency of persons performing certain tasks, proof of such certification shall be provided to the Service Manager.

The Contractor's Workmen's Compensation fees must be up to date. A copy of the Contractor's WCA registration shall be produced on request.

The following areas in the company are declared as "HOT WORKS PERMIT" areas:
All airside areas

All basement areas

All areas accessible to the public

All enclosed areas

The terminal building

Any process in the above-mentioned areas involving open flames, sparks, or heat shall be authorised by the issue of a permit to work - obtainable from the ACSA Safety department. Any work done under the protection of a permit to work shall be in strict compliance with every prescription regarding the permit.

Safety equipment shall be used where applicable (e.g. safety, goggles, boots, harness, etc.) The Contractor, at his/her own expense shall provide such equipment, for his/her employees. The Contractor shall apply the necessary discipline and control to ensure compliance by his workers.

All Contractors must ensure that his/her employees are familiar with the existing emergency procedures and must co-operate in any drills or exercises, which might be held. Emergency / fire equipment and extinguishers shall not be obstructed at any time.

No person shall perform an unsafe / unhygienic act or operation whilst on Company premises.

No unsafe/dangerous equipment or tools may be brought onto or used on Company premises. The Company reserves the right to inspect all equipment/tools at any time and to prevent/prohibit their use, without any penalty to the Company and without affecting the terms of the Contract in any way.

The Company reserves the right to act in any way to ensure the safety/security of any persons, equipment or goods on its premises and will not be liable for any costs or loss evoked by the action. This includes the right to search all

vehicles and persons entering, leaving or on the premises and to inspect any parcel, package, handbag, and pockets. Persons who are not willing to permit such searches may not bring any such items or vehicles onto the premises.

The Contractor shall maintain good housekeeping standards in the area where he is working for the duration of the contract.

At no time, must the Contractor interfere with, or put at risk, the functionality of any Sprinklers and/or fire prevention system. Care must also be taken to prevent fire hazards.

The Contractor is required to issue all staff with standard uniforms. This shall as a minimum include steel-tipped safety shoes/boots, overalls (clearly marked with Contractor's company logo) and numbered reflective jackets (also clearly marked with Contractor's company logo, the team members unique personnel number in a font size to be instructed by the Service Manager). All costs relating to uniforms shall be for the Contractor's account.

**Cell phones and two-way radios**
Use of cell phones on airside is not permitted unless the user is in possession of an appropriate Airport permit for the device. Cell phone permit issuing authority lies with the ACSA Security department.

The Contractor will not be allowed to use two-way radios at the Airport unless these radios are of the type, model, and frequency range as approved by the ACSA IT department.

**Protection of the public**
The Contractor shall take special care in order not to harm or endanger the public in any way. Work shall be sufficiently hoarded and guarded to safeguard children and the general public from injury relating to machinery, work or other.

**Barricades and lighting**
Where hoarding, barricades or lighting is required in the execution of the Works, the Contractor shall provide same at his/her own expense. Hoarding, barricades, and lighting shall comply with industry accepted norms and standards and may not be used for purposes of advertising or any other purpose than safeguarding the Works.

**ANNEXES to C3 (Service information)**

| Title | Annex number |
|---|---|
| Schedule of Equipment | Annex A |
| Service Level Agreement | Annex B |
| Environmental Terms and Conditions | Annex C |
| Schedule of Tools and Special Equipment | Annex D |
| Contract start-up proposal | Annex E |
| Resource proposal | Annex F |
| Maintenance Tasks (Extract from D060 023M) | Annex G |
| Maintenance Tasks (Extract from D060 018M) | Annex H |

AIRPORTS COMPANY
SOUTH AFRICA

**ANNEX A**

**SCHEDULE OF EQUIPMENT**

| Transformers | | | | |
|---|---|---|---|---|
| **Quantity** | **Manufacture** | **Rating** | **Type** | **Location** |
| 1 | Hawker Siddeley | 11kV/400V, 500kVA | Oil filled | Main substation |
| 1 | John & Phillips | 11kV/400V, 300kVA | Oil filled | Main substation |
| 1 | Free State Transformers | 3300V/230V, 16kVA | Oil filled | ATNS Remote Station |
| 1 | Free State Transformers | 3300V/230V, 16kVA | Oil filled | New Pump station |
| 1 | Quality Transformer | 1000V/230V, 7.5kVA | Oil filled | Weather Service station |
| 1 | Harper Transformer | 1000V/380V, 13.2kVA | Oil filled | Main substation |

| Mini substations | | | | |
|---|---|---|---|---|
| **Quantity** | **Manufacture** | **Rating** | **Type** | **Location** |
| 1 | GEC Alstom | 11kV/400V, 1MVA | Oil filled | RIO Glass |
| 1 | Power Tech Transformers | 11kV/400V, 415kVA | Oil filled | UGH mini sub |
| 1 | ECC SA | 11kV/400V, 300kVA | Oil filled | GA mini sub |
| 1 | GEC Power Distribution | 11kV/400V, 415kVA | Oil filled | Engen/Puma |
| 1 | Power Tech Transformers | 11kV/400V, 630kVA | Oil filled | PV plant |

| MV Switchgear | | | | |
|---|---|---|---|---|
| **Quantity** | **Manufacture** | **Rating** | **Type** | **Location** |
| 5 | ABB Safeplus | 11kV | SF6 | Main substation |
| 3 | Ormazabal | 11kV | SF6 | Main pumpstation |

| RMU | | | | |
|---|---|---|---|---|
| **Quantity** | **Manufacture** | **Rating** | **Type** | **Location** |
| 1 | GEC Power distribution | 11KV | Oil | Engen mini sub |
| 1 | GEC Alstom | 11kV | Oil | RIO Glass mini sub |
| 1 | W. Lucy & Co | 11KV | Oil | GA mini sub |
| 1 | Desta Power Matla | 11kV | Oil | UGH mini sub |
| 1 | Schneider Electric | 11KV | SF6 | PV Plant |
| 1 | Merlin Gerin | 11KV | SF6 | PV Plant |

| LV Switchgear | | | | |
|---|---|---|---|---|
| **Quantity** | **Manufacture** | **Rating** | **Type** | **Location** |
| 2 | ABB SACE Emax X1 | 400V- 690V | ACB | Main substation |
| 2 | ABB SACE Emax X2 | 400V- 690V | ACB | Main substation |
| 1 | Siemens | 400V- 690V | ACB | Main substation |

**ANNEX B**

**SERVICE LEVEL AGREEMENT/TABLE**

**Operational hours**
Normal airport operational hours shall be as detailed below for the year but will be confirmed/amended by the Service Manager from time to time. The Contractor must allow for sufficient after-hours work for scheduled work not to interfere with airport operations.

Normal airport operational hours shall be
Upington International Airport: Mon-Fri 06H30 – 19H00; Sat 09H30 – 14H00; Sun 10H30 – 19H00

Normal Working Hours shall be 07H00 – 18H00

**Minimum Staffing Schedule**
The Contractor shall continuously ensure that all staff is suitable, able and competent for the duties required of them. Staff must have electrical experience related to the scope of work. The Contractor shall continuously ensure that all staff is knowledgeable on all equipment relating to the scope of work.

**Detail requirements regarding staff**
The Contractor shall continuously ensure that all staff is suitable, able and competent for the duties required of them. Staff must have both MV and LV Electrical experience. The Contractor shall continuously ensure that all staff is knowledgeable on all equipment relating to the scope of work.

**For all staff and senior personnel dedicated to this contract, the following must be submitted in detail:**
- ❑ **Full Names**
- ❑ **Proof of qualifications and work experience on maintaining similar equipment system.**

The Contractor must maintain the following **minimum** staff available when required and should price accordingly:

| Skill | Quantity | Frequency |
|---|---|---|
| OEM Specialist | 1 | When required |
| Electrician | 1 | Planned and Unplanned Maintenance |
| Electrician Assistant | 1 | Planned and Unplanned Maintenance |

The Contractor must have additional resources available to attend to lengthy breakdowns or breakdowns of a specialised nature.

It shall be the Contractor's responsibility to ensure that all relevant labour and safety legislation is adhered to in rostering staff.

The Contractor shall schedule staff to complete the preventative maintenance schedule accordingly. The Tenderer must ensure that sufficient allowance for all these items is made for in his/her pricing in the Activity Schedule.

**Response Times**

| Description | Benchmark |
|---|---|
| Response time | 100% of breakdowns shall be responded to within:<br>➢ 1 hour from the time the Contractor is notified of the breakdown - during airport normal operational hours<br>➢ 1 hour from the time Contractor is notified of the breakdown – after airport operational hours |
| Closure Duration | 100% of breakdowns shall be resolved within:<br>➢ 1 hour from the time the Contractor arrives on site – during airport normal operational hours<br>➢ 1 hour from the time the time Contractor arrives on site - after airport operational hours |

| | |
|---|---|
| % of planned maintenance completed per SLA | 100% of all planned maintenance shall be completed |
| Total breakdowns requiring a second level of response (the intervention of a Field Engineer or higher expertise) | ➢ All breakdowns requiring a second level of response shall be resolved within 24 hours (subject to the lead time of required spares) and shall be limited to a total of 3 occurrences per month. |

**Human resources**

The following minimum standards shall apply to resourcing:

1. For all call-outs: Considering current airport access control infrastructure and security arrangements and considering the physical layout of the airport, the Contractor shall ensure a sufficient quantity and effective positioning of staff to meet or exceed the Service Level Agreement.
2. The rostered maintenance staff compliment shall be sufficient to perform all required preventative maintenance for each month.
3. During operational hours, the Contractor shall respond in accordance to the S.L.A to successfully attend to breakdowns.
4. During operational hours, the Contractor shall have at least one senior person who will respond to the call outs who:
    a) Is suitably qualified and experienced to resolve breakdowns and system stoppages.
    b) Is suitably qualified and experienced to work on any electrical control panel.
    c) Is able to successfully interact with OEM personnel.
    d) Is of a level of seniority to successfully direct and manage Contractor staff and possible sub-contractors during system breakdowns and can successfully interact with airport operational staff and airport management.

**Staff qualifications**

It will always remain the Contractor's responsibility to ensure that staff is suitably qualified and experienced for the duties expected of them. Further all applicable legislative requirements must be adhered to in rostering staff.

ACSA reserves the right to verify all personnel employed under this contract. Furthermore, ACSA reserves the right to order that personnel that are not adequately qualified or suited for this contract are removed from the site.

The Contractor must comply and respond to the following:

*Compliance to benchmarks will be calculated on a weekly average except on repairs that will be calculated on a monthly average. The total operational hours for the respective week/month shall be used as a guide. The only exceptions will be stoppages due to mains electricity supply failures and/or where ACSA has refused system repairs and/or adequate access to the site.

Detail on how calls will be dispatched will be discussed on site with the Service Manager as the call dispatch process varies from airport to airport.

*Availability will be calculated on a monthly average. This will include all stoppages, even if such stoppages are not under the Contractor's control. The only exceptions will be stoppages due to mains electricity supply failures and/or where ACSA has refused system repairs and/or adequate access to the site. The total operational hours for the respective week/month shall be used as a measure for calculating availability. All other benchmarks above will be calculated on a weekly average. Reports will be provided by the ACSA Computerised Maintenance Management System.

Defect free liability period

| | |
|---|---|
| Defect free liability period – corrective or breakdown maintenance | The defect free period will be no less than 90 days. |
| Defect free liability period – project work | The defect free period will be no less than 12 months. |

AIRPORTS COMPANY
SOUTH AFRICA

**Low Service Damages**

Parties agree to the following Low Service Damage scheme. The Low Service Damage scheme does not influence the calculation of the contract sum/value. The amounts listed in this addendum will not be subjected to any future contract escalation and exclude VAT.

This addendum may not be terminated for convenience.

**Low Service Damages**

ACSA must notify the contractor in writing of its intention to claim a Low Service Damage within 30 days of an event or ACSA will lose its right to claim the penalty. Should ACSA not claim a Low Service Damage for an event it shall not be interpreted that the level of performance is acceptable or that ACSA shall not be entitled to claim Low Service Damage for similar future events. Under no circumstances shall a Low Service Damage be regarded as the only action ACSA may take against the Contractor or the only amount it may claim from the Contractor.

Low Service Damages are limited to a maximum of **25% of the fixed cost /month.**

**Low Service Damage breakdown**

| Low Service Damage Description | Low Service Damage |
|---|---|
| Where a repair cannot be completed the same day due to the unavailability of a spare part. | R 2 500.00<br>(unless the unavailability of the spare part was agreed to by the Service Manager or his/her duly authorised representative) |
| Leaving a breakdown unattended or incomplete for another day or shift<br><br>Not meeting call response and closure time SLA. | R 2 000.00<br>(unless the delay in repair was agreed to by the Service Manager or his/her duly authorised representative or unless the required spares are not available to complete the work) |
| Safety infringement (for example: leaving moving machinery exposed) | R 5 000.00 per incident |
| Availability not meeting requirements | R 2 000.00 per month |

**Continuous Improvement Program and the Computerized Maintenance Management System**

It is hereby required that the Contractor ensures that a continuous improvement program is in place. For example, the criteria below may be used but not only limited to the items mentioned below.

1. An improvement in the availability of systems
2. An improvement on the minimization of spares holding (for example by increasing Mean Time to Failure of components)
3. Etc.

As mentioned above this list is not comprehensive and it is only used for illustrative purposes. Upon implementation of the contract the Employer and the Contractor shall agree targets for the continuous improvement program.

It is important to note that continuous improvement will only apply to those items that meet minimum benchmarks. Continuous improvement initiatives shall be reviewed every quarter or when deemed necessary by the Employer or the Contractor.

**MAINTENANCE RECORD SHEETS**

When maintenance is performed, record sheets must be completed and signed off by both the Electrician and an ACSA representative.

These record sheets must be stored for the duration of the contract and should be available for inspection at any time. **The lack of complete history files will result in immediate cancellation of the contract.**

All record sheets, job cards, history reports etc. will stay the property of ACSA and should be available on request. At the end of the contract period a complete set of documentation must be handed over to ACSA.

The contractor shall further provide copies of these record sheets to the ACSA contract manager by the fifth day of every month. **No money will be paid out if record sheets are not handed in.**

AIRPORTS COMPANY
SOUTH AFRICA

**ANNEX C**

***ACSA SERVICE & MAINTENANCE CONTRACTORS***
***ENVIRONMENTAL TERMS AND CONDITIONS TO COMMENCE WORK - EMS 048***

The following Environmental Terms and Conditions shall be strictly adhered to by all contractors when conducting works for ACSA. ACSA shall audit contractor activities, products and services on an ad hoc basis to ensure compliance to these environmental conditions. Any pollution clean-up costs shall be borne by the contractor.

| ISSUE | REQUIREMENT |
|---|---|
| **Environmental Policy** | ACSA's Environmental Policy shall be communicated, comprehended and implemented by all ACSA appointed contractor staff. |
| **Storm water, Soil and Groundwater Pollution** | • No solid or liquid material may be permitted to contaminate or potentially contaminate storm water, soil or groundwater resources.<br>• Any pollution that risks contamination of these resources must be cleaned up immediately. Spills must be reported to ACSA immediately. Contractors shall supply their own suitable clean-up materials where required.<br>• Washing, maintenance and refuelling of equipment shall only be allowed in designated service areas on ACSA property. It is the contractor's responsibility to determine the location of these areas.<br>• No leaking equipment or vehicles shall be permitted on the airport. |
| **Air Pollution** | • Dust: Dust resulting from work activities that could cause a nuisance to employees, or the public shall be kept to a minimum.<br>• Odours and emissions: All practical measures shall be taken to reduce unpleasant odours and emissions generated from work related activities.<br>• Fires: No open fires shall be permitted on site. |
| **Noise Pollution** | • All reasonable measures shall be taken to minimize noise generated on site due to work operations.<br>• The Contractor shall comply with the applicable regulations regarding noise. |
| **Waste Management** | • Waste shall be separated as general or hazardous waste.<br>• General and hazardous waste shall be disposed of appropriately at a permitted landfill site should recycling or re-use of waste is not feasible.<br>• Under no circumstances shall solid or liquid waste be dumped, buried or burnt.<br>• Contractors shall maintain a tidy, litter free environment always in their work area.<br>• Contractors must keep on file:<br>1. The name of the contracting waste company<br>2. Waste disposal site used<br>3. Monthly reports on quantities – separated into general, hazardous and recycled<br>4. Maintained file of all Waste Manifest Documents and Certificates of Safe Disposal<br>5. Copy of waste permit for disposal site |

| | |
|---|---|
| | This information must be available during audits and inspections. |
| **Handling & Storage of Hazardous Chemical Substances (HCS)** | • All HCS shall be clearly labelled, stored and handled in accordance to Materials Safety Data Sheets.<br>• Materials Safety Data Sheets shall be stored with all HCS.<br>• All spillages of HCS must be cleaned up immediately and disposed of as hazardous waste. (HCS spillages must be reported to ACSA immediately).<br>• All contractors shall be adequately informed with regards to the handling and storage of hazardous substances.<br>• Contractors shall comply with all relevant national, regional and local legislation regarding the transport, storage, use and disposal of hazardous substances. |
| **Water and Energy Consumption** | ACSA promotes the conservation of water and energy resources. The contractor shall identify and manage those work activities that may result in water and energy wastage. |
| **Training & Awareness** | The conditions outlined in this permit shall be communicated to all contractors and their employees prior to commencing works at the airport. |

**Penalties**

Penalties shall be imposed by ACSA on Contractors who are found to be infringing these requirements and/or legislation. The Contractor shall be advised in writing of the nature of the infringement and the amount of the penalty. The Contractor shall take the necessary steps (e.g. training/remediation) to prevent a recurrence of the infringement and shall advise ACSA accordingly.
The Contractor is also advised that the imposition of penalties does not replace any legal proceedings, the Council, authorities, land owners and/or members of the public may institute against the Contractor.

Penalties shall be between R200 and R20 000, depending upon the severity of the infringement. The decision on how much to impose will be made by ACSA's Airport Environmental Management Representative in consultation with the Airport Manager or his/her designate and will be final. In addition to the penalty, the Contractor shall be required to make good any damage caused due to the infringement at his/her own expense.

I, ..... of ..... agree to the above conditions and acknowledge ACSA's right to impose penalties should I or any of my employees or sub-contractors fail to comply with these conditions.

Signed: _____ on this date: _____ (dd/mm/yyyy)

at: .....

AIRPORTS COMPANY
SOUTH AFRICA

**ANNEX D**

## TOOLS AND SPECIAL EQUIPMENT

The Contractor shall have **all** Tools and Special Equipment, necessary for the execution of the works, either on site or readily available at his/her premises. The principle that applies to Tools and Special Equipment is that downtime must be kept to an absolute minimum. Any **exclusion** to the above should be listed with the lead-time required to deliver same to site.

| Number | Item description | Lead time |
|---|---|---|
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | | |
| 5 | | |
| 6 | | |
| 7 | | |

AIRPORTS COMPANY
SOUTH AFRICA

**ANNEX E**

**Contract start-up proposal**

The Contractor shall include a detailed Contractor's Plan/start up proposal (including a program of the activities / events) within 21 days after both parties have signed the contract (contract data).

AIRPORTS COMPANY
SOUTH AFRICA

**ANNEX F**

## RESOURCE PROPOSAL

The Contractor shall include a detailed resource proposal (including an organogram for on-site personnel) at the bidding stage. This shall, as a minimum, include the quantity of staff (regarding level of skill and formal training of each) and how/where they will be deployed and utilised under this contract. This must also include a proposed shift roster and deployment schedule.

AIRPORTS COMPANY
SOUTH AFRICA

**ANNEX G**

## SUGGESTED MAINTENANCE PROGRAMME

**Maintenance Tasks (Extract from D060 023M)**

The Contractor shall include a suggested maintenance programme that must attempt to cover all requirements under this contract.

Contractor is to ensure that the proposed maintenance programme agrees with the OEM maintenance recommendations.

As a minimum and where applicable, the Contractor must perform the following:
All Preventive Maintenance shall be scheduled, at least, to the requirements of the following table. The contractor shall ensure that all maintenance is done in accordance to the OEM requirements.

| **Maintenance Tasks for Electrical Panels – Switchgear MV – 11kV** | | |
|---|---|---|
| **Activity** | **Task Description** | **Frequency** |
| Inspection and Servicing | **MV Board Housing Panel:** | Yearly |
| | Check integrity of panel structure | |
| | Clean panel | |
| | Cabling and Termination Accessories: | |
| | Visual inspection | |
| | | |
| | **Circuit Breakers (Oil, Vacuum or SF6 Gas Type)** | Yearly |
| | Functional Testing (SF6 /Vacuum) | |
| | Continuity Test | |
| | Contact Resistance Test | |
| | Circuit Breaker Speed Test | |
| | Functional Testing (Oil) | |
| | Refer D060 018M Maintenance of 11kV, SF6, Vacuum and Oil Circuit Breakers | |
| | | |
| | **Current and Voltage Transformers:** | Yearly |
| | Visual inspection | |
| | Check alignment (VT's) | |
| | Check VT fuses | |
| | Test CT knee point voltage | |
| | Test for the CT saturation curve | |
| | | |
| | **Metering Equipment:** 1) Calibration and Testing | Yearly |
| | | |
| | **Protection Equipment: (Relays, Transducers, Communication Devices etc.)** | Yearly |
| | Calibration and Testing | |
| | Ensure that the protection settings are according to | |
| | design | |

| | | |
|---|---|---|
| | Indication Lighting: | |
| | Visual inspect | |
| | Test for functionality | |
| | | |
| | **Battery Tripping Unit:** | Yearly |
| | Clean tripping batteries and terminals | |
| | Top up cells with distilled water (if applicable) | |
| | Check battery charger for loose connections (tighten if required) | |
| | Ensure TRICKLE charge | |
| | operational | |
| | Measure and record battery voltage | |
| | Check Amp/Volt meters for proper operation | |
| | | |
| | | |
| | | |
| | **MV Cabling:** | Yearly |
| | * Stored Cable Drums: | |
| | 1) Roller cables *Where applicable | |
| | | |
| | **MV Cable repairs:** | ADHOC |
| | Cable identification | |
| | Cable spiking | |
| | | |
| | **Bus-Bar Conductors:** | Yearly |
| | Cleaning / Dry ice cleaning | |
| | Torqueing | |
| | | |

| **Maintenance Tasks for Electrical Panels – Switchboard LV – 400V** | | |
|---|---|---|
| **Activity** | **Task Description** | **Frequency** |
| Inspection and Servicing | **Visual Inspection:** | Yearly |
| | Inspect panel for missing labels | |
| | Inspect panel meters for correct operation | |
| | Inspect protection relays for fault and report any flags | |
| | Inspect earth wire for corrosion | |
| | Verify all labels for correct identification | |
| | Inspect panel for signs of rust or damage | |
| | Inspect labels for looseness and visibility | |
| | Clean bus bars | |
| | Conduct thermographic | |
| | inspection of bus bar | |
| | Inspect (Visually) check breaker frame | |
| | Inspect visually all fixed contacts | |
| | Visually inspect Arc – chutes | |
| | Visually Inspect Escutcheon | |
| | Visually Inspect Moving contacts | |
| | Inspect visually Insulation blocks | |
| | | |

| | | |
|---|---|---|
| | **Test operation of protection circuits** | Yearly |
| | Ensure that the protection circuit trip settings are correct | |
| | Inspect Front cover | |
| | Interphase barriers | |
| | Interphase barriers | |

| **Maintenance Tasks for Electrical – Transformers (TRF)** | | |
|---|---|---|
| **Activity** | **Task Description** | **Frequency** |
| Inspection and Servicing | **By Authorized Personnel Only Oil Transformer – Major Maintenance:** | Yearly |
| | Overall visual inspection | |
| | Inspection for oil leaks, active silica gel colour and note any flags on the protection devices | |
| | Inspection of excessive heat generation | |
| | Inspection of tap changer locked (If unlocked do not move the tap changer dial but arrange for a shutdown and ensure the tap is in the right position and lock it) | |
| | N.B. Never move the Tap Changer while the transformers are on/live! | |
| | Check the temperature gauge and winding gauges, and then record | |
| | Check the oil level gauge | |
| | | |
| | **By Authorized Personnel Only Oil Transformer – Major Maintenance** | Yearly |
| | Check oil levels according to the SANS 555 | |
| | Transformer oil tests and analysis; (If PCB's are present remove and replace the oil immediately); and the PCB contaminated oil shall be safely disposed of: SANS 290 provides guidelines for the management of PCB in mineral insulating oils., | |
| | Functionality test of protection warning and/or trip signal, | |
| | Inspection of high voltage cable insulation, | |
| | Inspection of earthing and its resistance | |
| | When determined in accordance with either IEC 61619, the PCB content of unused mineral insulating oils shall be undetectable – SANS 555. | |
| | When tested in accordance with either IEC 61619, the PCB content of reclaimed mineral insulating oils shall not be more than 20 mg/kg – SANS 555 | |

| | | |
|---|---|---|
| | Inspection for rust, corrosion, or defective coating; cleaned and painted, | |
| | Ensure that warning signs and safety devices are present and in correct positions | |
| | Scan the transformer with an infra-red tester to check for abnormal “Hot Spots” and | |
| | Inspect the silica gel and ensure it is compliant | |
| | | |
| | **Dry Type Transformer – Major Maintenance Activities** | Yearly |
| | Functionality test of protection warning and/or trip signal, | |
| | Inspection of high voltage cable insulation, | |
| | Inspection of earthing and its resistance | |
| | Inspection for rust, corrosion, or defective coating; cleaned and painted, | |
| | Ensure that warning signs and safety devices are present and in correct positions | |
| | Scan the transformer with an infra-red tester to check for abnormal “Hot Spots” and repair as required | |

| **Maintenance Tasks for Power Factor Correction Equipment (PFC)** | | |
|---|---|---|
| **Activity** | **Task Description** | **Frequency** |
| Inspection and Servicing | Inspect panel for missing labels | Yearly |
| | Inspect panel meters for correct operation | |
| | Inspect protection relays for fault flags | |
| | Inspect earth wire for corrosion | |
| | Clean the dust filters and clean dust off the equipment in the unit | |
| | Test and compare the PFC Unit for any “drift” and calibrate as required | |
| | Test and compare the KVar Output to designed specification KVar Output | |
| | Check Amp / Volt meters for proper operation | |
| | Verify all labels for correct identification | |
| | Inspect panel for signs of rust or damage | |

AIRPORTS COMPANY
SOUTH AFRICA

| | | |
|---|---|---|
| Inspection /Testing | Inspect labels for looseness | |
| | Clean bus bars | |
| | Conduct thermographic inspection of bus bar | |
| | Test operation of protection circuits | |
| | Ensure that the protection circuit trip settings are correct | |
| | | |
| | | |
| | Clean the dust filters and clean dust off the equipment in the unit | Yearly |
| | Test and compare the PFC Unit for any “drift” and calibrate as required | |
| | Test and compare the KVar Output to designed specification KVar Output | |
| | Check Amp / Volt meters for proper operation | |
| | Verify all labels for correct identification | |
| | Inspect panel for signs of rust or damage | |
| | Inspect labels for looseness | |
| | Clean bus bars | |
| | Conduct thermographic inspection of bus bar | |
| | Test operation of protection circuits | |
| | Ensure that the protection circuit trip settings are correct | |
| | | |

| **Maintenance Tasks for Mini substations (MSB)** | | |
|---|---|---|
| **Activity** | **Task Description** | **Frequency** |
| Inspection and Servicing | Check LV cable labelling | Yearly |
| | Are Warning notices on MV side visible and acceptable | |
| | Are Warning notices on LV side visible and acceptable | |
| | Check that color coding was attached to left hand side of inner cubicle in MV side | |
| | | |
| | **Labelling:** | Yearly |
| | Check if General Signage is still attached to LV Door | |
| | Check mini substation labelling, if the name stenciled on the outside of the mini sub, as well as the inner side of the LV door, is done according to the labelling standard | |
| | Check the incoming MV labelling if it is according to labelling standard | |

| | | |
|---|---|---|
| | Check the outgoing MV labelling if it is according to labelling standard | |
| | Check LV cable labelling | |
| | Are Warning notices on MV side visible and acceptable | |
| | Are Warning notices on LV side visible and acceptable | |
| | Check that colour coding was attached to left hand side of inner cubicle in MV side | |
| | **Mechanical (Minisub)** | Yearly |
| | Check the condition of MV compartment doors | |
| | Check the condition of LV doors | |
| | Check if locks are available on the MV door side | |
| | Check if locks are available on the LV door side | |
| | Are all locking devices still in good condition? | |
| | Are safety devices fitted to MV & LV doors? | |
| | Check the condition of the cooling fins | |
| | Check for grass and vermin proofing still in good condition | |
| | Check for any visible holes that can lead to unauthorised access and blanked off with a plain rivet or device suitable to overcome the problem. | |
| | Check if roof bolts are still in tack and no open gaps visible. | |
| | Check for operating handles available on site | |
| | | |
| | **Oil/Gas (MiniSub)** | Yearly |
| | Check oil leaks on the MV bushings | |
| | Check oil leaks on the LV bushings | |
| | Check oil leaks on the Switchgear | |
| | Check oil level on the transformer | |
| | Check the condition of oil level on the Switchgear | |
| | Check for gas pressure (where applicable) | |
| | Breakers/Fuses (MiniSub) | |
| | Check if all safety barriers are still in position and no live connections exposed. | |
| | Test for hot connections with infra-red scanning | |
| | Check (Visual Inspection) for loose connections on the LV breakers | |
| | Check MV safety barrier fitted | |
| | Check (Visual Inspection) the neutral for any loose connections | |
| | Check if phase barrier boards are fitted between phases | |
| | Check if safety sign is installed on safety barrier | |
| | Check and/or Test for fuses if in good condition | |
| | Check overall condition of mini sub inside and outside | |
| | Check if tap-changer is locked | |
| | Check for grass and weeds on outer side of Mini-substation that needs to be removed. | |
| | Check for back-filling if it needs attention. | |
| | Check for interface seal if intact | |
| | **Maintenance:** | Yearly |
| | Check for corona discharge | |
| | Operation of tap changers | |

| | | |
|---|---|---|
| | Painting and treatment of corroded Mini Substation boxes and /or enclosures | |
| | Repairing of oil leaks | |
| | Correct operation of circuit breakers | |
| | Replacement of fuses where applicable | |
| | Fitting and cleaning of Perspex covers, covering live busbars | |
| | Check for hot connection on LV side | |
| | Check LV breakers if mounted properly | |
| | Check/test for loose connections on the LV breakers | |
| | Check the neutral for any loose connections | |
| | Check or test fuses if they are in a good condition | |
| | After the Annual Service, a Service Report per Mini-Substation shall be submitted to the organisation | |
| | Check transformer earthing to be intact | |
| | Check earthing on MV cables | |
| | Check earthing on all LV cables | |
| | Check earthing on the mini substation housing to be intact | |
| | Check status and condition of earth fault indicator (where applicable) | |
| | Test the neutral for any loose connections | |
| | Examine Oil condition and analysis in line with SANS 555 | |
| | | |
| | **Circuit Breakers:** | Yearly |
| | The tasks listed are high level /minimum tasks. The contractor is expected to complete all tasks as OEM requirements, scope of works on the contract and as listed on the approved inspection sheet | |
| | Test the functional performance of the SF6/vacuum circuit breaker (If installed) | |
| | Clean the switch of the SF6/vacuum circuit breaker (If installed) | |
| | Lightly lubricate the operating mechanism of the SF6/vacuum circuit breaker (If installed) | |
| | Clean the internal mechanism, contacts and the oil tank of the oil filled circuit breaker | |
| | Replace the existing insulating oil in the oil filled circuit breaker with new or reconditioned insulating oil<br>(As required) | |
| | Dress, refurbish or replace contacts of the oil filled circuit breaker as appropriate | |
| | Replace oil filled circuit breaker seals and gaskets | |
| | Adjust mechanisms of the oil filled circuit breaker | |
| | Conduct Ductor test on contacts | |
| | Test electrical protection of the oil filled circuit breaker | |
| | **Protection Equipment: (Relays, Transducers, Communication Devices etc.) where fitted** | Yearly |
| | Calibration and Testing | |
| | Ensure that the protection settings are according to design | |

AIRPORTS COMPANY SOUTH AFRICA

| | | |
|---|---|---|
| | Indication Lighting: | |
| | Visual inspect | |
| | Test for functionality | |
| | | |

| Maintenance Tasks for Ring Main Unit (RMU) | | |
|---|---|---|
| **Activity** | **Task Description** | **Frequency** |
| Inspection | **Labelling:** | Yearly |
| | Check if general Signage is still attached | |
| | Check RMU labelling, if the name stencilled on the outside and inside and that it is done according to the correct labelling standard | |
| | Check the incoming MV labelling if it is according to correct | |
| | Check the outgoing MV labelling if it is according to correct labelling standard | |
| | Are Warning notices on MV side visible and acceptable | |
| | Are Warning notices are visible and acceptable | |
| | Check that colour coding on the inner cubicle in MV side | |
| | **Mechanical:** | |
| | Check the condition of MV compartment doors | |
| | Check if locks are available on the MV door side | |
| | Are all locking devices still in good condition? | |
| | Are safety devices fitted to MV doors? | |
| | Check for grass and vermin proofing still in good condition | |
| | Check for any visible holes that can lead to unauthorised access and blanked off with a plain rivet or device suitable to overcome the problem. | |
| | Check if roof bolts are still in tack and no open gaps visible. | |
| | Check for operating handles available on site | |
| | | |
| | **Oil/Gas:** | |
| | Check oil leaks | |
| | Check the condition of oil level on the Switchgear (where applicable) | |
| | Check for SF6 gas pressure (where applicable) | |
| | Breakers / Fuses | |
| | Check if all safety barriers are still in position and no live connections exposed. | |
| | Check for hot connections on MV side | |
| | Check MV safety barrier fitted | |
| | Check (Visual Inspection) the neutral for any loose connections | |

| | | |
|---|---|---|
| | Check if phase barrier boards are fitted between phases | |
| | Check if safety sign is installed on safety barrier | |
| | Check and/or test for fuses if in good condition | |
| | Check overall condition of mini sub inside and outside | |
| | Check if tap-changer is locked | |
| | Check for grass and weeds on outer side of mini sub that needs to be removed. | |
| | Check for backfilling if it needs attention. | |
| | Check for interface seal if intact. | |

| **Maintenance Tasks for New Electrical Systems Installations** | | |
|---|---|---|
| **Activity** | **Task Description** | **Frequency** |
| Commissioning | Inspection on Associated Cabling: Upon commissioning and/or recommissioning the following tests shall be done: | ADHOC |
| | Safety test | |
| | MV phasing test | |
| | Phase Rotation Sequence Test | |
| | Phase to Phase Impedance Test | |
| | Phase to Earth Impedance Test | |
| | Insulation Resistance and Voltage Withstand Level | |
| | Labelling, Signage, etc. | |
| | | |

AIRPORTS COMPANY
SOUTH AFRICA

**ANNEX H**

## SUGGESTED MAINTENANCE PROGRAMME

**Maintenance Tasks (Extract from D060 018M)**

The Contractor shall include a suggested maintenance programme that must attempt to cover all requirements under this contract.

Contractor is to ensure that the proposed maintenance programme agrees with the OEM maintenance recommendations.

As a minimum and where applicable, the Contractor must perform the following:
All Preventive Maintenance shall be scheduled, at least, to the requirements of the following table. The contractor shall ensure that all maintenance is done in accordance to the OEM requirements.

| Maintenance Tasks and Activities for Oil Circuit Breakers | | |
|---|---|---|
| **Activity** | **Task Description** | **Frequency** |
| Maintenance | Trip test | Yearly |
| | Ensure that the auto trip, close and trip illuminations are working | |
| | Di - electric strength | |
| | Moisture content | |
| | Dressing of fixed and moving contacts | |
| | Service contacts | |
| | Wipe checks | |
| | Resistance check | |
| | Maintenance and lubrication of mechanisms – auxiliary switches, interlocks and shoot bolts | |
| | PCB Awareness | |
| | Ensure Safety | |
| Maintenance | Trip test | 3 Yearly |
| | Ensure that the auto trip, close and trip illuminations are working | |
| | Dielectric strength | |
| | Moisture content | |
| | Dressing of fixed and moving contacts | |
| | Service contacts | |
| | Wipe checks | |
| | Resistance check | |
| | Maintenance and lubrication of mechanisms – auxiliary switches, interlocks and shoot bolts | |
| | PCB Awareness | |
| | Ensure Safety | |
| | Inspect and service selectors to allow breakers to be operated remotely with the umbilical cord | |

| | | |
|---|---|---|
| | Inspect and service/repair battery Business Units from where the DC supply is fed from to ensure sufficient voltage required to the protection and selector items on the protection panels | |
| | Inspect and service protection relays and remote controls | |

| Maintenance Tasks and Activities for SF6 Circuit Breakers | | |
|---|---|---|
| **Activity** | **Task Description** | **Frequency** |
| Maintenance | Trip test | Yearly |
| | Ensure that the auto trip, close and trip illuminations are working | |
| | Gas pressure checks and refill | |
| | Cable box checks and repairs | |
| | Auxiliary box check and repairs | |
| | General cleaning with approved equipment | |
| | Earthing checks and repairs | |
| | Ensure safety | |
| Maintenance | Trip test | 3 Yearly |
| | Ensure that the auto trip, close and trip illuminations are working | |
| | Gas pressure checks and refill | |
| | Cable box checks and repairs | |
| | Auxiliary box check and repairs | |
| | General cleaning with approved equipment | |
| | Earthing checks and repairs | |
| | Ensure safety | |
| | Inspect and service selectors to allow breakers to be operated remotely with the umbilical cord | |
| | Inspect and service / repair battery Business Units from where the DC supply is fed from to ensure sufficient voltage required to the protection and selector items on the protection panels | |
| | Inspect and service protection relays and remote controls | |

**C4 Site Information**

No site information is supplied with this contract.