



AIRPORTS COMPANY SOUTH AFRICA SOC LIMITED

PROJECT NAME AND NUMBER: RFQ 74424

**TITLE OF PROJECT: Supply, Deliver, Install, Test and Commission
a 300kVA UPS unit and UPS Batteries at Cape Town International
Airport**

NEC 3: ENGINEERING AND CONSTRUCTION CONTRACT (ECC)

Between

AIRPORTS COMPANY SOUTH AFRICA SOC LIMITED

Cape Town International Airport

(Registration Number: 1993/004149/30)

and

(Registration Number: _____)

For

**Supply, Deliver, Install, Test and Commission a 300kVA UPS unit and UPS Batteries at Cape Town
International Airport**

Contents:

No of pages

Part C1	Agreements & Contract Data	[2 - 27]
Part C2	Pricing Data	[28 - 32]
Part C3	Scope of Works	[35 - 45]
Part C4	Site Information	[46 - 47]

Part C1: Agreements and Contract Data**C1.1: Form of Offer and Acceptance****OFFER**

The Employer, identified in the Acceptance signature block, has solicited offers to enter into a contract for the:

- **Supply, Deliver, Install, Test and Commission a 300kVA UPS unit and UPS Batteries at Cape Town International Airport**

The tenderer, identified in the Offer signature block, has examined the documents listed in the Tender Data and addenda thereto as listed in the Returnable Schedules, and by submitting this Offer has accepted the Conditions of Tender.

By the representative of the tenderer, deemed to be duly authorised, signing this part of this Form of Offer and Acceptance the tenderer offers to perform all of 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 INCLUSIVE OF VAT IS:

(in words)

.....

 Rands;

(in figures) R.....

THE OFFERED PRICES ARE AS STATED IN THE PRICING SCHEDULE

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 including the Schedule of Deviations (if any) to the tenderer before the end of the period of validity stated in the Tender Data, or other period as agreed, whereupon the tenderer becomes the party named as the **Contractor** in the conditions of contract identified in the Contract Data.

Signature(s)

Name(s)

Capacity

**For the
Bidder:**

Name & signature of witness	<i>(Insert name and address of organisation)</i>	Date
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ACCEPTANCE

By signing this part of this Form of Offer and Acceptance, the Employer identified below accepts the tenderer'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 tenderer's Offer shall form an agreement between the Employer and the tenderer 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 Form of Offer and Acceptance)
Part C2	Pricing Data
Part C3	Scope of Work: Works Information
Part C4	Site Information

and drawings and documents (or parts thereof), which may be incorporated by reference into the above listed Parts.

Deviations from and amendments to the documents listed in the Tender Data and any addenda thereto listed in the Returnable Schedules as well as any changes to the terms of the Offer agreed by the tenderer and the Employer during this process of offer and acceptance, are contained in the Schedule of Deviations attached to and forming part of this Form of Offer and Acceptance. No amendments to or deviations from said documents are valid unless contained in this Schedule.

The tenderer shall within two weeks of 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 securities, 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.

Notwithstanding anything contained herein, this agreement comes into effect on the date when the tenderer receives one fully completed original copy of this document, including the Schedule of Deviations (if any). Unless the tenderer (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.

Signature(s)

Name(s)

Capacity

**for the
Employer**

Airports Company South Africa SOC Limited

**Administrator Office, Southern Office Block
Private Bag X9002
Cape Town International, Western Cape
South Africa, 7525**

*(Insert name and address of
organisation)*

Name &
signature of
witness

Date

Schedule of Deviations

- 1 Subject
- Details
-
-
-
- 2 Subject
- Details
-
-
-
- 3 Subject
- Details
-
-
-

By the duly authorised representatives signing this agreement, the Employer and the Tenderer 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 returnable schedules, as well as any confirmation, clarification or changes to the terms of the offer agreed by the Tenderer 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 tenderer of a completed signed copy of this Agreement shall have any meaning or effect in the contract between the parties arising from this agreement.

For the Employer

For the Bidder

Signature (s)

Name (s)

Capacity

**Name and
Address**

**Airports Company South Africa SOC
Limited**

**Administrator Office, Southern Office
Block
Private Bag X9002
Cape Town International, Western
Cape
South Africa, 7525**

*(Insert name and address of
organisation)*

(Insert name and address of organisation)

Name &
Signature of
witness

Date

Part C1.2a Contract Data**Part one – Data provided by the *Employer***

The Conditions of contract are selected from the NEC3 Engineering and Construction Contract, April 2013.

Each item of data given below is cross-referenced to the NEC3 Engineering Construction Contract which requires it.

Clause	Statement	Data
1	General	
	The <i>conditions of contract</i> are the core clauses and the clauses for Main Option	
	Main Option	B: Priced contract with Bill of Quantities
	Dispute resolution Option	W1: Dispute resolution procedure
	Secondary Options (incorporating amendments)	X2: Changes in the law X7: Delay damages X13: Performance Bond X16: Retention X18: Limitation of liability Z: Additional conditions of contract of the NEC3 Engineering and Construction Contract, April 2013
10.1	The <i>Employer</i> is (Name)	Airports Company South Africa SOC Limited, Applicable at Cape Town International Airport
	Address	Administrator Office, Southern Office Block, Western Cape, South Africa, 7525. Private Bag X9002, Cape Town International, Western Cape, South Africa, 7525.
	Telephone	021 937 1200
	Fax	n/a
10.1	The <i>Project Manager</i> is	
	Address	Administrator Office, Southern Office Block, Western Cape, South Africa, 7525. Private Bag X9002, Cape Town International, Western Cape, South Africa, 7525.
	Telephone	021 935 3852
	E-mail address	

10.1	The <i>Supervisor</i> is	
	Address	Administrator Office, Southern Office Block, Western Cape, South Africa, 7525. Private Bag X9002, Cape Town International, Western Cape, South Africa, 7525.
	Telephone	021 935 3852
	Email	
11.2	The <i>works</i> are	Supply, Deliver, Install, Test and Commission a 300kVA UPS unit and UPS Batteries at Cape Town International Airport
11.2	The following matters will be included in the Risk Register	Working on Airside: High noise levels Driving on airside: busy environment Electrical Live line works up to 400V Working with Lead-acid Batteries.
11.2	The <i>Works Information</i> is in	Part C3 'Scope of Works' section of this contract
11.2	The <i>Site Information</i> is in	Part C4 'Works Information' section of this contract
11.2	The <i>boundary of the site</i> is	Cape Town International Airport
12.2	The <i>law of the contract</i> is the law of	the Republic of South Africa
13.1	The <i>language of this contract</i> is	English
13.3	The <i>period of reply</i> is	Seven (7) working days
3	Time	
31.2	The <i>starting date</i> is	Upon signing of contract by ACSA
11.2	The <i>completion date</i> is	6 Months after the starting date
30.1	The <i>access date</i> is	Upon safety file approval
31.1	The <i>Contractor</i> submits a first (preliminary) programme with the tender by the tender closing date	21 days from tender opening date
32.2	The <i>Contractor</i> submits revised programmes at intervals no longer than	Thirty (30) days after receipt of a valid tax invoice

35.1	The <i>Employer</i> is not willing to take over the works before the <i>completion date</i>	The <i>Employer</i> and Others will have access to the <i>works</i> during construction or prior to completion. Such access by the Employer and Others shall not relieve the Contractor from liability for the completion of the <i>works</i> in accordance with the Works Information and in terms of this contract.
4	Testing and Defects	
42.2	The <i>defects date</i> is	Six (6) months after Completion of the whole of the <i>works</i>
43.2	The <i>defects correction period</i> is	Two (2) weeks
5	Payment	
50.1	The <i>assessment interval</i> is	Four (4) weeks
50.1	The <i>currency of this contract</i> is the	South African Rand
51.2	The period within which payment is made is	30 days from date of invoice
51.4	The <i>interest rate</i> is	The prime lending rate of the Nedbank Bank. as determined from time to time
6	Compensation events	
60.1	The <i>weather measurements</i> to be recorded for each calendar month are	the cumulative rainfall (mm) the number of days with rainfall more than 10 mm the number of days with minimum air temperature less than 0 degrees Celsius
60.1	The place where weather is to be recorded (on the Site) is	At the Construction Site Office and the records to be kept on site in a file clearly marked for this purpose
7	Title	No data required for this section of the <i>conditions of contract</i>
8	Risks and Insurance	
84.1	The <i>Employer</i> provides these insurances	Refer to the Insurance Clauses (C1.4) which is attached at the end of the Contract Data

84.2	The <i>Contractor</i> provides the insurance	Refer to Part C, clause C1.5
	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 required for this section of the <i>conditions of contract</i>
10	Data for Main Options	

B Priced contract with Bill of Quantities

11	Data for Option W1	
W1.1	The <i>Adjudicator</i> is	The person appointed jointly by the parties from the list of adjudicators contained below
W1.2	The <i>Adjudicator nominating body</i> is	The current Chairman of Johannesburg Advocate's Bar Council
W1.4	The <i>tribunal</i> is	Arbitration
W1.4	If the <i>tribunal</i> is arbitration, the arbitration procedure is	The <i>arbitration procedure</i> is set out in The Rules for the Conduct of Arbitrations 2013 Edition, 7th Edition, published by The Association of Arbitrators, (Southern Africa)
W1.4	The place where arbitration is to be held is	Johannesburg, South Africa.
W1.4	The person or organisation who will choose an arbitrator	The <i>Arbitrator</i> is the person selected by the Parties as and when a dispute arises in terms of the relevant Z Clause, from the Panel of Arbitrators provided under the relevant Z clause if the arbitration procedure does not state who selects an arbitrator. The Arbitrator nominating body is the Chairman of the Johannesburg Advocates Bar Council.
12	Data for Secondary Option Clauses	
X7	Delay Damages	
	Delay damages of the <i>works</i> are	Amount per day is 0.05%, to the maximum of 10% of the Contract value
X13	Performance bond	
X13.1	The amount of the performance bond is	10% of the contract value. Pro-forma draft of a performance bond to be used is attached to this contract.
X16	Retention	
X16.1	The <i>retention percentage</i> is	5% of the Contract value.
X18	Limitation of Liability	
X18.1	The <i>Contractor's</i> liability to the <i>Employer</i> 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 <i>Contractor's</i> liability to the <i>Employer</i> for loss of or damage to the <i>Employer's</i> property is limited to	No limitation of liability
X18.3	The <i>Contractor's</i> total liability to the Employer for defects due to his design which are not listed on the Defects Certificate is limited to	No limitation of liability
X18.4	The <i>Contractor's</i> total liability to the <i>Employer</i> for all matters arising under or in connection with this contract, other than excluded matters, is limited to	No limitation of liability The excluded matters are amounts payable by the Contractor as stated in this contract for - Loss of or damage to the Employer's property, - Delay damages, - Defects liability, - Insurance liability to the extent of the Contractor's risks - loss of or damage to property (other than the <i>works</i>, Plant and Materials), - death of or injury to a person; - damage to third party property; and - infringement of an intellectual property right
Z	The Additional conditions of contract are	Z1 – Z20
	Amendments to the Core Clauses	
Z1	Interpretation of the law	
Z1.1	Add to core clause 12.3: Any extension, concession, waiver or relaxation of any action stated in this contract by the Parties, the <i>Project Manager</i> , the <i>Supervisor</i> , or the <i>Adjudicator</i> 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 Works:	
Z2.1	Delete core clause 20.1 and replace with the following: The <i>Contractor</i> provides the works in accordance with the Works Information and warrants that the results of the Works, 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 <i>Contractor</i> shall have satisfied himself, prior to the Contract Date, as to the completeness, sufficiency and accuracy of all information and drawings provided to him as at the Contract Date	
Z3.2	The <i>Contractor</i> shall be responsible for the correct setting out of the <i>Works</i> in accordance with the original points, lines and levels stated in the <i>Works</i> Information or notified by the <i>Project Manager</i> , <i>Supervisor</i> or the <i>Employer</i> . Any errors in the positioning of the <i>Works</i> shall be rectified by the <i>Contractor</i> at the <i>Contractor's</i> own costs.	
Z4	Extending the defects date:	

Add the following as a new core clause 46:	
Z4.1	If the <i>Employer</i> cannot use the <i>works</i> due to a Defect, which arises after Completion and before the <i>defects date</i> , the <i>defects date</i> is delayed by a period equal to that during which the <i>Employer</i> , due to a Defect, is unable to use the <i>works</i>
Z4.2	If part of the <i>works</i> is replaced due to a Defect arising after Completion and before the <i>defects date</i> , the <i>defects date</i> for the part of the <i>works</i> which is replaced is delayed by a period equal to that between Completion and the date by when the part has been replaced
Z4.3	The <i>Project Manager</i> notifies the <i>Contractor</i> of the change to a <i>defect date</i> when the delay occurs. The period between Completion and an extended <i>defects date</i> does not exceed twice the period between Completion and the <i>defects date</i> stated in the Contract Data
Z5	Termination
Z5.1	Add the following to core clause 91.1, at the second main bullet, fifth sub-bullet point, after the words “assets or”: “business rescue proceedings are initiated or steps are taken to initiate business rescue proceedings”.
Amendment to the Secondary Option Clauses	
Z6	Performance Bond
Z6.1	Amend the first sentence of clause X13.1 to read as follows: The <i>Contractor</i> gives the <i>Employer</i> an unconditional, on-demand performance bond, provided by a bank which the <i>Project Manager</i> and the <i>Employer</i> have accepted, for the amount stated in the Contract Data and in the form set out in Annexure C.ii of this Contract Data.
Z6.2	Add the following new clause as Option X13.2: The <i>Contractor ensures</i> that the performance bond is valid and enforceable until the end of the <i>contract period</i> . If the terms of the performance bond specify its expiry date and the end of the <i>contract period</i> does not coincide with such expiry date, four weeks prior to the said expiry date, the <i>Contractor</i> extends the validity of the performance bond until the end of the <i>contract period</i> . If the <i>Contractor</i> fails to so extend the validity of the performance bond, the <i>Employer</i> may claim the full amount of the performance bond and retain the proceeds as cash security
Z7	Limitation of liability:
Z7.1	Insert the following new clause as Option X18.6: The <i>Employer's</i> liability to the <i>Contractor</i> for the <i>Contractor's</i> indirect or consequential loss is limited to R0.00
Z7.2	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 <i>Contractor</i> shall be excluded from the calculation of the limitations of liability listed in the contract
Additional Z Clauses	
Z8	Cession, delegation and assignment
Z8.1	The <i>Contractor</i> shall not cede, delegate or assign any of its rights or obligations to any person without the written consent of the <i>Employer</i> , which consent shall not be unreasonably withheld. This clause shall be binding on the liquidator/business rescue practitioner /trustee (whether provisional or not) of the <i>Contractor</i>
Z8.2	The <i>Employer</i> may cede and delegate its rights and obligations under this contract to any person or entity

Z9	Joint and several liability
Z9.1	If the <i>Contractor</i> 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 <i>Employer</i> for the performance of the Contract.
Z9.2	The <i>Contractor</i> shall, within 1 week of the Contract Date, notify the <i>Project Manager</i> and the <i>Employer</i> of the key person who has the authority to bind the <i>Contractor</i> on their behalf.
Z9.3	The <i>Contractor</i> 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 <i>Employer</i> .
Z10	Ethics
Z10.1	The <i>Contractor</i> undertakes:
Z10.1.1	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;
Z10.1.2	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 <i>Employer</i> is subject, including but not limited to the Prevention and Combating of Corrupt Activities Act, 12 of 2004.
Z10.2	The <i>Contractor's</i> breach of this clause constitutes grounds for terminating the <i>Contractor's</i> obligation to Provide the Works or taking any other action as appropriate against the <i>Contractor</i> (including civil or criminal action). However, lawful inducements and rewards shall not constitute grounds for termination.
Z10.3	If the <i>Contractor</i> 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, gratuity, commission or benefits of any kind, which are in any way whatsoever in connection with the contract with the <i>Employer</i> , the <i>Employer</i> 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.
Z11	Confidentiality
Z11.1	All information obtained in terms of this contract or arising from the implementation of this contract shall be treated as confidential by the <i>Contractor</i> 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 <i>Project Manager</i> or the <i>Employer</i> , which consent shall not be unreasonably withheld.
Z11.2	If the <i>Contractor</i> is uncertain about whether any such information is confidential, it is to be regarded as such until otherwise notified by the <i>Project Manager</i> .
Z11.3	This undertaking shall not apply to –
Z11.3.1	Information disclosed to the employees of the <i>Contractor</i> for the purposes of the implementation of this agreement. The <i>Contractor</i> undertakes to procure that its employees are aware of the confidential nature of the information so disclosed and that they comply with the provisions of this clause;
Z11.3.2	Information which the <i>Contractor</i> is required by law to disclose, provided that the <i>Contractor</i> notifies the <i>Employer</i> prior to disclosure so as to enable the <i>Employer</i> to take the appropriate action to protect such information. The <i>Contractor</i> 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;

- Z11.3.3** 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);
- Z11.4** The taking of images (whether photographs, video footage or otherwise) of the *works* or any portion thereof, in the course of Providing the Works and after Completion, requires the prior written consent of the *Project Manager*. All rights in and to all such images vests exclusively in the *Employer*
- Z11.5** The *Contractor* ensures that all his Subcontractors abide by the undertakings in this clause.

Z12 ***Employer's Step-in rights***

- Z12.1** If the *Contractor* defaults by failing to comply with his obligations and fails to remedy such default within 2 weeks of the notification of the default by the *Project Manager*, the *Employer*, without prejudice to his other rights, powers and remedies under the contract, may remedy the default either himself or procure a third party (including any subcontractor or supplier of the *Contractor*) to do so on his behalf. The reasonable costs of such remedial works shall be borne by the *Contractor*
- Z12.2** 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 *Project Manager* to achieve this end.

Z13 ***Liens and Encumbrances***

- Z13.1** The *Contractor* keeps the Equipment used to Provide the Services 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 procures 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

Z14 ***Intellectual Property***

- Z14.1** Intellectual Property ("IP") rights means all rights in and to any patent, design, copyright, trade mark, trade name, trade secret or other intellectual or industrial property right relating to the Works.
- Z14.2** IP rights remain vested in the originator and shall not be used for any reason whatsoever other than carrying out the *works*.
- Z14.3** The *Contractor* gives the *Employer* an irrevocable, transferrable, non-exclusive, royalty free licence to use and copy all IP related to the *works* for the purposes of constructing, repairing, demolishing, operating and maintaining the works
- Z14.4** 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
- Z14.5** 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:
- Z14.5.1** the *Contractor's* design, manufacture, construction or execution of the Works

Z14.5.2 the use of the *Contractor's* Equipment, or

Z14.5.3 the proper use of the Works.

Z14.6 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.

Z16 Dispute resolution:

Z16.1 Appointment of the Adjudicator

An *Adjudicator* is appointed when a dispute arises, from the Panel of Adjudicators below. The referring party nominates an Adjudicator, which nomination is either accepted or rejected by the other party. In the instance of a rejection of the nominated *Adjudicator*, the referring Party refers the appointment deadlock to the Chairman of the Johannesburg Bar Council, who appoints an *Adjudicator* listed in the Panel of Adjudicators below

The Parties appoint the *Adjudicator* under the NEC3 Adjudicator's Contract, April 2013

Panel of Adjudicators

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

Z16.2 Appointment of the Arbitrator

An *Arbitrator* is appointed when a dispute arises from the Panel of Arbitrators below. The referring party nominates an Arbitrator, which nomination is either accepted or rejected by the other party. In the instance of a rejection of the nominated *Arbitrator*, the referring Party refers the appointment deadlock to the Chairman of the Johannesburg Bar Council, who appoints an *Arbitrator* listed in the Panel of *Arbitrators* below

Panel of Arbitrators

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

Z17 Notification of a compensation event

- Z17.1** Delete “eight weeks” in clause 61.3 and replace with “four weeks”. Delete the words “unless the event arises from the Project Manager or the Supervisor giving an instruction, issuing a certificate, changing an earlier decision or correcting an assumption.

Z18 BBBEE Certificate

- Z18.1** The *Contractor* shall be expected to annually present a compliant BEE Certificate. Failure to do adhere to these requirements shall be considered a material breach of the conditions of this Contract, the sanction for which may be a cancellation of this Contract.

Z19 Communication

- Z19.1** **Add a new Core Clause** 14.5 and 14.6 to read as follows:
The *Project Manager* requires the written consent of the Employer if an action will result in a change to the design, scope, and Works information that is 5% or more
- Z19.2** The *Project Manager* requires the written consent of the Employer if an action will result in the Completion Date being extended by more than 30 days.

Z20 Delegation

As stipulated by Section 37(2) of the Occupational Health and Safety Act No. 85 of 1993 as amended the *Contractor* agrees to the following:

- Z20.1** As part of this contract the *Contractor* acknowledge that it (mandatory) is an employer in its own right with duties as prescribed in the Occupational Health and Safety Act No 85 of 1993 as amended and agree to ensure that all work being performed, or Equipment, Plant and Materials being used, are in accordance with the provisions of the said Act, and in particular with regard to the Construction Regulations

PART C1.2b CONTRACT DATA**PART TWO – DATA PROVIDED BY THE CONTRACTOR**

Clause	Statement	Data
10.1	The Contractor is (Name): Address: Telephone No. Fax No.	
11.2	The <i>working areas</i> are	Only the Site Area. See C4 'Site Information'
24.1	The <i>Contractor's Key people</i> are:	CV's to be appended to Tender Schedule
	Name:	
	Job:	
	Responsibility:	
	Qualifications:	
	Experience:	
	Name:	
	Job:	
	Responsibility:	
	Qualifications:	
	Experience:	
	Name:	
	Job:	
	Responsibility:	
	Qualifications:	
	Experience:	
	Name:	
	Job:	
	Responsibility:	
	Qualifications:	
	Experience:	
11.2	The <i>completion date</i> is	<u> </u> Weeks from start date

11.2	The following matters will be included in the Risk Register	• Existing Services • Access to Site • Delay in supply of material and/or equipment • Progress of the works against the program • Travelling public and ACSA stakeholders
11.2	The <i>Works Information</i> is in	Part C3 'Scope of Works' section of this contract
31.1	The programme identified in the	Part C3 'Scope of Works' section of this contract

Part C1: Agreements and Contract Data**C1.3: Form of Guarantee****PRO FORMA FOR PERFORMANCE BOND****PERFORMANCE BOND****[TO BE REPLICATED ON BANK'S LETTERHEAD]**

Brief description of contract.....

Name and address of Beneficiary.....

..... (whom the contract defines as the Contractor).

We, the undersigned and..... in our capacities as Guarantor's..... of (**Registration Number:**) (hereinafter called "the Bank") have been informed that hereinafter called the 'Principal') is your Contractor under such contract, which requires him to obtain an irrevocable, unconditional performance security.

At the request of the Principal, we(name of bank) hereby irrevocably undertake to pay you, the Employer, any sum or sums not exceeding in total the amount of(the "Guaranteed Amount") upon receipt by us of your first written demand stating that such an amount (or lesser amount) as may be claimed is due and payable to the Employer.

This guarantee constitute an irrevocable, unconditional, non-negotiable and non-transferable undertaking to pay in accordance with the above, subject to the proviso that this Letter will not be interpreted as extending the Bank's liability to anything more than the Guaranteed Amount.

Notwithstanding anything to the contrary herein contained, the Bank's obligation shall be construed as principal and not as accessory to the contract and shall not be delayed or discharged by the fact that a dispute exists between the Employer and the Contractor.

We undertake to pay you such Guaranteed Amount upon receipt by us, within such period of 14 days, of your first written demand stating that such an amount (or lesser amount) as may be claimed is due and payable to the Employer.

The guarantee shall be governed by and construed in accordance with the laws of the Republic of South Africa

Signed at _____ on _____ 20....

For:

Registration Number:_____
Name & Position

As witnesses:

1. _____

2. _____

PART C1: AGREEMENTS AND CONTRACT DATA**C1.4: 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 Organisation: AIRPORTS COMPANY SOUTH AFRICA Cape Twon International Airport
Physical Address: Airport Company South Africa Administrator Office, Southern Office Block Private Bag X9002 Cape Town International Western Cape, South Africa 7525.

Hereinafter referred to as "Client"

Name of organisation:
Physical Address

Hereinafter referred to as "the Mandatory/ Principal Contractor"

MANDATORY'S MAIN SCOPE OF WORK

Automated Meter Reading System at Bram Fischer International Airport, Kimberley National Airport and Upington International Airport**GENERAL INFORMATION FORMING PART OF THIS AGREEMENT**

1. The Occupational Health & Safety Act comprises of SECTION 1-50 and all unrepelled 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. "Mandatory" 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 Mandatories (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 Mandatories 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 Mandatory 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 Mandatory 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 Mandatory undertakes to comply with:

INSURANCE

1. The Mandatory 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 Mandatory 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 OHSAct 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 user 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 duty 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 deem 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,

Ia duly authorised 16.2 Appointee acting for and on behalf of(company name) undertake to ensure that the requirements and the provision of the OHSAct 85 of 1993 and its regulations are complied with.

Mandatary – WCA/ Federated Employers Mutual No.....

Expiry date

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

DATE

SIGNATURE ON BEHALF OF THE CLIENT
AIRPORT COMPANY SOUTH AFRICA

DATE

PART C1: AGREEMENTS AND CONTRACT DATA

C1.5: ACSA INSURANCE CLAUSES

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.

PART C2: PRICING DATA

Document reference	Title	No of pages
C2.1	Pricing assumptions: Option B	04
C2.2	The <i>bill of quantities</i>	05

C2.1 Pricing assumptions: Option B

1 The conditions of contract**1.1 How work is priced and assessed for payment**

Clause 11 in NEC3 Engineering and Construction Contract, April 2013 (ECC3) Option B states:

Identified and defined terms 11 11.2 (21) The Bill of Quantities is the *bill of quantities* as changed in accordance with this contract to accommodate implemented compensation events and for accepted quotations for acceleration.

(28) The Price for Work Done to Date is the total of

the quantity of the work which the *Contractor* has completed for each item in the Bill of Quantities multiplied by the rate and a proportion of each lump sum which is the proportion of the work covered by the item which the *Contractor* has completed.

Completed work is work without Defects which would either delay or be covered by immediately following work.

(31) The Prices are the lump sums and the amounts obtained by multiplying the rates by the quantities for the items in the Bill of Quantities.

This confirms that Option B is a re-measurement contract and the bill comprises only items measured using quantities and rates or stated as lump sums. Value related items are not used. Time related items are items measured using rates where the rate is a unit of time.

1.2 Function of the Bill of Quantities

Clause 55.1 in Option B states, "Information in the Bill of Quantities is not Works Information or Site Information". This confirms that instructions to do work or how it is to be done are not included in the Bill, but in the Works Information. This is further confirmed by Clause 20.1 which states, "The *Contractor* Provides the Works in accordance with the Works Information". Hence the *Contractor* does **not** Provide the Works in accordance with the Bill of Quantities. The Bill of Quantities is only a pricing document.

1.3 Guidance before pricing and measuring

Employers preparing tenders or contract documents, and tendering contractors are advised to consult the sections dealing with the bill of quantities in the NEC3 Engineering and Construction Contract (June 2005) Guidance Notes before preparing the *bill of quantities* or before entering rates and lump sums into the *bill*.

The NEC approach to the P & G bill assumes use will be made of method related charges for Equipment applied to Providing the Works based on durations shown in the Accepted Programme, fixed charges for the use of Equipment that is required throughout the construction phase, time related charges for people working in a supervisory capacity for the period required, and lump sum charges for other facilities or services not directly related to performing work items typically included in other parts of the bill.

The P & G section of the bill is not used for the assessment of compensation events.

2 Measurement and payment**2.1 Symbols**

The units of measurement described in the Bill of Quantities are metric units abbreviated as follows:

Abbreviation	Unit
%	percent
h	hour
ha	hectare
kg	kilogram
kl	kilolitre
km	kilometre
km-pass	kilometre-pass
kPa	kilopascal
kW	kilowatt
l	litre
m	metre
mm	millimetre
m ²	square metre
m ² -pass	square metre pass
m ³	cubic metre
m ³ -km	cubic metre-kilometre
MN	meganewton
MN.m	meganewton-metre
MPa	megapascal
No.	number
Prov sum ¹	provisional sum
PC-sum	prime cost sum
R/only	Rate only
sum	Lump sum
t	ton (1000kg)
W/day	Work day

2.2 General assumptions

- 2.2.1 Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance has been made in the quantities for waste.
- 2.2.2 The Prices and rates stated for each item in the Bill of Quantities shall be treated as being fully inclusive of all work, risks, liabilities, obligations, overheads, profit and everything necessary as incurred or required by the *Contractor* in carrying out or providing that item.
- 2.2.3 An item against which no Price is entered will be treated as covered by other Prices or rates in the *bill of quantities*.
- 2.2.4 The quantities contained in the Bill of Quantities may not be final and do not necessarily represent the actual amount of work to be done. The quantities of work assessed and certified for payment by the *Project Manager* at each assessment date will be used for determining payments due.
- 2.2.5 The short descriptions of the items of payment given in the *bill of quantities* are only for the purposes of identifying the items. Detail regarding the extent of the work entailed under each item is provided in the Works Information.

2.3 Amplification of or assumptions about measurement items

For the avoidance of doubt the following is provided to assist in the interpretation of descriptions given in the *method of measurement*. In the event of any ambiguity or inconsistency between the statements in the *method of measurement* and this section, the interpretation given in this section shall be used.

C2.2 The *Bill of Quantities*

Supply, delivery, installation, testing and commissioning cost:

Item	Item/ Service Description	Unit of Measure	Quantity	Unit Price	Total Price
1	Supply, delivery, installation, testing and commissioning of 300kVA UPS including all the necessary cables	Each	1	R	R
2	Supply, delivery, installation, testing and commissioning of a 42 x 210Ah lead-acid battery bank including all the necessary connection cables. The manufacturing date of the batteries must be within 3-months from date of installation.	Sum	42	R	R
3	Prepare and Submit a Safety File	Each	1	R	R
4	Removal and Disposal of existing Lead-Acid Batteries (42 x 210Ah) (Provide disposal certificate).	Sum	1	R	R
12	Sub - Total (Rands)				R
13	Provisional sum amount for any unforeseen work = 10% of the Sub- total above (This will be paid at proven cost at ACSA discretion)				R
14	Contract administration cost				R 14 856.00
15	Grand Total (Rands) = Rows 12 + 13 + 14				R

Contract administration cost:

Item no.	Description - Contract Administration Costs	Frequency	Quantity	Cost per item	Total of personnel	Total cost
Preliminary and General - Contract Administration Costs:						
1	Airside Induction (AIT Initial) & permits	Once-off	Per person	R 2104	4	R 8 416.00
2	General Security Awareness training (GSAT)	Once-off	Per person	R 960	4	R 3 840.00
3	Personal Permits	Annually	Per person	R 650	4	R 2 600.00
Total preliminaries and general costs (Excl. VAT)						R 14 856.00

- ACSA will only re-imburse permits for a maximum of 4 people for these works. Any extra personnel will be at the expense of the service provider.
- Permits are not paid for by ACSA upfront. The service provider pays for the permits and then submit claims invoice to ACSA for re-imbursement without any markup.

PART C3: SCOPE OF WORK

Document reference	Title	No of pages
	This cover page	01
C3.1	<i>Employer's</i> Works Information	09
C3.2	<i>Contractor's</i> Works Information ²	02
	Total number of pages	

² Insert at award stage or delete if not applicable. Delete this note once a selection is made.

TABLE OF CONTENTS

Clause number and description	Page
The contractor shall arrange an on-site once-of training, to the Employer's personnel, on operation, maintenance and fault finding on the new installation.	37
Engineering and design of the works	37
<i>As-built drawings, operating manuals and maintenance documentations must be submitted to the PM in print and electronically saved in compact disc storage device.</i>	<i>40</i>
<i>All documentation must be made available before the final payment.</i>	<i>40</i>
Procurement.....	40

C3.1: EMPLOYER'S WORKS INFORMATION

Description of the works

- Supply, Deliver, Install, Test and Commission a 300kVA UPS at Substation 19.
- Supply, Deliver, Install, Test and Commission a 42 x 210Ah VRLA batteries at Sub 19. The manufacturing date must be within 3 months from date of installation.
- Prepare and submit safety file prior to work commencement.
- About 60% of the work (connection to the load and generator or mains) will be done at night between 23:00 and 04:00 (after the last flight), to avoid disruption to operations. BOQ installation prices must cater for nights' work.
- Ensure proper earthing of UPS and battery cabinets.
- Clearly label all cables, equipment fed and provide drawings.
- Perform load testing and commissioning of the UPS and batteries.
- Submit operation and maintenance manuals.
- Provide familiarization training of ACSA personnel on UPS operation, trouble shooting, maintenance etc.
- Submit battery installation and test certificates upon completion.
- Provide battery disposal certificates.
- All workmanship and supplied equipment must come with a one-year warranty. Provide warranty certificate.
- All workmanship must be in accordance with SANS electrical installation regulations, OHS Act and relevant environmental legislations.
- Any additional work identified during execution must be approved by ACSA Project Manager before implementation.

Interpretation and terminology

The following abbreviations are used in this Works Information:

Abbreviation	Meaning given to the abbreviation
UPS	Uninterrupted Power Supply
ATC	Air Traffic Control
ICAO	International Convention on Civil Aviation
ICASA	Independent Communications Authority of South Africa
OHS	Operational Health and Safety
SANS	South African National Standards
THD	Total Harmonic Distortion
TDD	Total Demand Distortion
SAWS	South African Weather Service
VRLA	Valve Regulated Lead Acid Batteries

Contract Management

Regular meetings of a general nature may be convened and chaired by the *Project Manager* as follows:

Title and purpose	Approximate time & interval	Location	Attendance by:
Design meetings	Weekly	Employer's offices	PM and contractor
Risk register and compensation events	Monthly	On site	<i>Employer, Contractor and Sub-contractor, Supervisor, and Safety officer</i>
Overall contract progress and feedback	Monthly	On site	<i>Employer, Contractor and Sub-contractor, Supervisor, and Safety officer</i>

Health and safety risk management

The *Contractor* shall at all times comply with the health and safety requirements prescribed by law as they may apply to the *services*.

Environmental constraints and management

The Contractor shall comply with the ACSA Health, Safety and Environmental specification contained in the ACSA OHS.

Quality assurance requirements

The project shall be managed in accordance with strict ISO 9001 quality system ensuring quality in design, administration, reports and site administration. Consultants must be accredited with ISO9001 compliance and each project shall be administrated with respect to quality and technical compliance, in accordance with these strict international Quality Procedures.

Within the period stated in the Contact Data, the *Contractor* submits his complete quality control and assurance system (with all quality control and assurance procedures and manuals) for review and acceptance by the *Employer*. The manual includes pro-forma checklists for all requirements of the *Contractor's* quality control and assurance program and those called for in the Scope.

Acceptance by the *Employer* of the *Contractor's* quality assurance programme, quality plans and/or inspection and/or test plans, or of those of his Subcontractors will not relieve the *Contractor* of his obligation to provide services which meet the requirements of the Contract.

Programming

The contractor must submit, with the tender, a preliminary program indicating the time frame to complete the work.

The program must include the resource plan, the ordering, delivery and installation of material.

A detailed programme for the project needs to be submitted within 14days of appointment and updated monthly.

The program must incorporate the following;

- A fourteen (14) calendar days notification period to shut electricity and/or water supplies to stakeholders, ATNS SAWS, ATC and airport essential services
- A thirty (30) calendar days notification period to work on the airside infrastructure and equipment.

The *Contractor's* Personnel

Contractor's key persons (Organogram)

Insurance provided by the *Employer*

No information required

Provision of bonds and guarantees

Without limitation to the Employer's rights under the Contract, the *Employer* may withhold payment of amounts due to the *Contractor* until the bond or guarantee required in terms of this contract has been received and accepted by the person notified to the *Contractor* by the *Project Manager* to receive and accept such bond or guarantee. Such withholding of payment due to the *Contractor* does not affect the *Employer's* right to termination stated in this contract.

Records of Defined Cost, payments & assessments of compensation events to be kept by the Contractor

All copies of documentation including payment certificates email communication should be kept in PDF and electronic format for a period of 5 years

Training workshops and technology transfer

The contractor shall arrange an on-site once-of training, to the Employer's personnel, on operation, maintenance and fault finding on the new installation.

ENGINEERING AND DESIGN OF THE WORKS

Employer's design

The contractor must design and carryout the work as per;

- ICAO and FAA recommendations
- Construction regulations
- SANS standards
- ICASA requirements
- ACSAs applicable OHS standards
- Electronic communications Act

Parts of the *works* which the *Contractor* is to design³

1. Communication Link

³ The information in this section is required by the contract. Do not delete.

4.1. The UPS units must come with SNMP cards.

2. Uninterrupted power supply (UPS)

300kVA UPS Three Phase

Parameter	Specifications
UPS Type	Online double-conversion (VFI) monolithic UPS
Power Rating	300kVA/270kW
Topology	Three-phase input / three-phase output (3Ø + N + PE)
Input Voltage	380/400/415 VAC
Input Current	501/478/458A
Output Voltage	380/400/415 VAC
Output Current	456/435/417A
Frequency	50/60
DC Bus Voltage	600VDC
Battery Type	External VRLA battery bank
Input Power Factor	≥0.99
Input THDi	<5%
Output Voltage Regulation	±1%
Output THDv	<2% (linear load), <4% (non-linear load)
Output Power Factor	≥0.99
Efficiency	Up to 95-96% in Online Mode, up to 98-99% in ECO Mode
Overload	110% for 60 min, 125% for 10 min, 150% for 1 min
Protection	Overload, short circuit, low battery, over-temperature, over voltage, under-voltage
Cooling	Intelligent forced-air cooling
Communication	RS-232, RS-485 (Modbus), Dry Contacts, SNMP
Parallel Operation	Support parallel redundancy/capacity expansion (model dependent)
Display	LCD touchscreen or graphical LCD with mimic diagram

General UPS Operational Requirements:

The UPS shall be designed to operate in the following modes:

- Normal
 - The critical load shall continuously be supplied by the inverter. The rectifier / battery charger shall derive power from the utility supply or generator and converts this to a DC energy source which supplies power to the inverter whilst maintaining a float charge to the battery. The static switch control circuits shall monitor and ensure the inverter tracks the bypass supply frequency. This shall ensure that should a transfer to the bypass supply be required due to an excessive overload etc, the synchronised transfer shall cause no interruption to the critical load.
- Overload
 - In the event of an inverter overload or manual transfer, the static switch shall automatically transfer the critical load to the bypass supply without interruption to the critical load.
- Utility Power Failure
 - When the Utility power fails, the inverter shall continue to supply the critical load without interruption or switching. In this condition energy shall be drawn from the battery bank and the length of time the UPS may continue to operate in this condition (autonomy) shall be dependent on the size (Ah) capacity of the battery and the load at the time. There shall be no interruption to the critical load upon failure of the utility supply, reduction or restoration of the AC input.
- Recharge
 - When the utility power returns, the rectifier / charger shall power the inverter and simultaneously recharge the battery. This operation shall completely be automatic with no effect on the critical load.
- Manual Maintenance (Bypass Mode)
 - If for any reason such as preventative maintenance, the critical load shall be transferable to the utility supply without any break or disturbance and all the major components shall be isolated. Transfer back to the inverter shall again be achieved without any break in supply to the critical load.

3. Battery Bank

- 42 x 210Ah VRLA batteries
- Supplied VRLA lead-acid batteries must have a 5-year life span

Procedure for submission and acceptance of Contractor's design

The system design and construction method must be submitted electronically, in PDF format, to the PM for evaluation and approval.

A fourteen (14) working days period will be allowed for approval of designs and construction method.

Care must be taken to use and conform to the existing equipment labelling requirements and standards.

All installed UPSs loads must be clearly labelled on the DB and verified that the correct loads corresponds with the labels.

Use of Contractor's design

No additional requirements

Equipment required to be included in the works

None

As-built drawings, operating manuals and maintenance schedules

As-built drawings, operating manuals and maintenance documentations must be submitted to the PM in print and electronically saved in compact disc storage device.

All documentation must be made available before the final payment

PROCUREMENT

Personnel:

Minimum requirements of people employed on the Site

Contractor must adhere to the SPECIAL REQUIREMENTS AT AN OPERATIONAL AIRPORT and OCCUPATIONAL HEALTH & SAFETY SPECIFICATION FOR ACSA herein attached

Subcontracting

Preferred subcontractors

None

Limitations on subcontracting

A Service Provider is not allowed to sub-contract more than 25% of the contract value to another enterprise that does not have equal or higher B - BBEE status level, unless the intended sub-contractor is an EME that has capability and ability to execute the sub-contract.

Plant and Materials

Plant & Materials provided "free issue" by the Employer

None

Contractor's procurement of Plant and Materials

The Employers will provide storage space to the contractor to store received material and plant on the premises.

Tests and inspections before delivery

- i. Commissioning must not disrupt the normal operation of the business*
- ii. The Employer must be informed two weeks in advance for commissioning*
- iii. Commissioning will include the UPS on load operation, cable tests, system functional test.*

Marking Plant and Materials outside the Working Areas

Not Applicable

Contractor's Equipment (including temporary works)

Not Applicable

Construction

Temporary works, Site services & construction constraints

Employer's Site entry and security control, permits, and Site regulations

Refer to Annexure 3A, SPECIAL REQUIREMENTS AT AN OPERATIONAL AIRPORT

Restrictions to access on Site, roads, walkways and barricades

Refer to Annexure 3A, SPECIAL REQUIREMENTS AT AN OPERATIONAL AIRPORT

People restrictions on Site; hours of work, conduct and records

Refer to Annexure 3A, SPECIAL REQUIREMENTS AT AN OPERATIONAL AIRPORT

Title to materials from demolition and excavation

Excavation material remains the property of the Employer

Contractor's Equipment

Contractor shall maintain an updated list of equipment used on site

Equipment provided by the Employer

None

Site services and facilities provided by the Employer

Refer to Annexure 3A, SPECIAL REQUIREMENTS AT AN OPERATIONAL AIRPORT

Facilities provided by the Contractor

Refer to Annexure 3A, SPECIAL REQUIREMENTS AT AN OPERATIONAL AIRPORT

Existing premises, inspection of adjoining properties and checking work of Others

Not Applicable

Setting out of the works

Refer to Annexure 3B _ ACSA OHS specification

Annexure 3C ACSA Safety Specification

Site conditions and requirements

Refer to Annexure 3B _ ACSA OHS specification

Annexure 3C ACSA Safety Specification

Annexure 3E_ACSA Service & Maintenance Contractors Environmental Terms and
Conditions to Commence Work - EMS 048

Annexure 3F_ ACSA Environmental Policy

Annexure 3G_ ACSA Environmental Management System

Construction requirements

Refer to Annexure 3B _ ACSA OHS specification

Completion, testing, commissioning and correction of Defects

Work to be done by the Completion Date

All work is to be done by the Contractor shall be completed by the Completion Date,

The *Project Manager* cannot certify Completion until all work is completed and free of Defects which would have, in his opinion, prevented the *Employer* from using the *works* and Others from doing their work.

Materials facilities and samples for tests and inspections

For building expansions, the contractor shall conduct material integrity test as per the construction regulation

Commissioning

- i. Testing and commissioning methods and equipment shall be approved by the Engineer.*
- ii. Testing and commissioning shall be conducted in the presence of Engineer.*
- iii. Test and commissioning certificates shall be forwarded to the Engineer within 7days of tests or commissioning.*

Start-up procedures required to put the works into operation

The contractor shall submit to the client a start procedure for approval.

Take over procedures

All works shall be handed back to the client on approval of test and commission results

Access given by the *Employer* for correction of Defects⁴

The contractor shall adhere to the provisions as stated in Annexure 3A to 3H.

Performance tests after Completion

Commissioning of works shall include performance tests, where approval of shall be obtained from the Engineer prior start-up.

Operational maintenance after Completion

No maintenance on the works shall be provided

List of drawings

1.1. Drawings issued by the *Employer*

[This is the list of drawings issued by the Employer at or before the Contract Date and which apply to this contract]

[illegible]

⁴ The information in this section is required by the contract. Do not delete. If it does not apply, delete the notes in *italics* and substitute the words 'Not applicable'.

PART C4: SITE INFORMATION

Document reference	Title	No of pages
C4	This cover page	1
	Site Information	2
Total number of pages		

Description of the Site and its surroundings

General description

The work is requested at Cape Town International Airport

Existing buildings, structures, and plant & machinery on the Site

The UPS systems will be installed at Sub 19, which is on the Airfield.

Subsoil information

Not applicable

Hidden services

Contractor must provide for the scanning of any hidden services on the area the works will be conducted.

Other reports and publicly available information

No information required.