

AIRPORTS COMPANY SOUTH AFRICA – KING PHALO AIRPORT & CHIEF DAWID STUURMAN INTERNATIONAL AIRPORT



AIRPORTS COMPANY SOUTH AFRICA SOC LIMITED

PROJECT NAME AND NUMBER: SOLAR PLANT MAINTENANCE FOR A PERIOD OF THREE (5) YEARS

TITLE OF PROJECT: SOLAR PLANT MAINTENANCE FOR KING PHALO AIRPORT & CHIEF DAWID STUURMAN INTERNATIONAL AIRPORT

NEC 3: TERM SERVICE CONTRACT (TSC)

Between AIRPORTS COMPANY SOUTH AFRICA SOC LIMITED

Applicable at, King Phalo & Chief Dawid Stuurman Airport and Port Elizabeth

(Registration Number: 1993/004149/30)

and TBC

(Registration Number: _____)

for Solar Plant Maintenance at King Phalo Airport & Chief Dawid Stuurman International Airport for a period of three (5) years

Contents:

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Part C2 Pricing Data
Part C3 Employer Service Information
Part C4 Site Information

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PART C1: AGREEMENT AND CONTRACT DATA

C1.1 Form of Offer and Acceptance

Offer

The employer, identified in the acceptance signature block, wishes to enter a contract for:

Solar Plant Maintenance for King Phalo airport & Chief Dawid Stuurman International Airport for a period of three (5) years.

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 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); (in figures)

(The above amount should be calculated as per the guide provided in the Activity Schedule. In the event of any conflict between the amount above and the Activity Schedule, the latter shall prevail.)

for the contractor

Signature Date

Name Capacity

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

Name and
signature of witness
.....

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 tenderer before the end of the period of validity stated in the tender data, whereupon the tenderer becomes the party named as the contractor in the conditions of contract identified in the contract data.

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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

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 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 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 Service manager (to be confirmed) 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.

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.

for the Employer

Signature Date
Name Capacity

Airports Company South Africa,

King Phalo & Chief Dawid Stuurman Airport & Chief Dawid
Stuurman International Airport
68 Settlers Way Allister Miller Dr Walmer
King Phalo & Chief Dawid Stuurman Gqeberha,
5200 6070

Name and signature of witness
.....

Schedule of Deviations

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1 Subject

Details

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2 Subject

Details

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3 Subject

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4 Subject

Details

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5 Subject

Details

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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 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.

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C1.2 Contract Data

Part one - Data provided by the *Employer*

Clause	Statement	Data
1	General	
	The <i>conditions of contract</i> are the core clauses and the clauses for main Option:	
	dispute resolution Option:	A: Priced contract with activity schedule
	and secondary Options:	W1: Dispute resolution procedure
		X1 Price Adjustment for inflation
		X2 Changes in the law
		X18: Limitation of Liability (as amended in Option Z)
		Z: Additional conditions of contract
	of the NEC3 Term Service Contract (April 2013)	
10.1	The <i>Employer</i> is (Name):	Airports Company South Africa SOC Limited
	Address 1	King Phalo & Chief Dawid Stuurman Airport 68 Settlers Way East London 5200
	Address 2	Chief Dawid Stuurman International Airport Allister Miller Dr, Walmer Gqeberha, 6070
10.1	The <i>Service Manager</i> is:	Xolile Bekwa Siyamcela Ncombo
11.2(1)	The <i>Accepted Plan</i> is	Included in Part C3 of this document, including Annexes thereto as submitted by the Contractor and accepted by the <i>Service Manager</i>.

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11.2(2)	The <i>Affected Property</i> is	King Phalo Airport & Chief Dawid Stuurman International Airport as set out in Annex A of the Part C4 the Site Information.
11.2(13)	The <i>Service</i> is	The Maintenance of the Solar Plant for King Phalo Airport & Chief Dawid Stuurman International Airport as set out in Part C3 Service Information.
11.2(14)	The following matters will be included in the Risk Register	The method statement Planned maintenance work (Annex B) Safety Legislated Annexes update
11.2(15)	The <i>Service Information</i> is in	The section titled Service Information included as Part C3 of this document.
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 for reply</i> is	7 calendar days
21.1	The period within which the Contractor provides the Contractor's Plan	14 calendar days from Contract Date
2	The Contractor's responsibilities	Detailed in Part C3 (Service Information)
3	Time	
30.1	The <i>starting date</i> is	01/11/26
30.2	The <i>Service Period</i> is	Five (5) years
4	Testing and Defects	No data is required for this section of the conditions of contract
5	Payment	
50.1	The <i>assessment interval</i> is on the	25th day of each successive month Effective payment to be made within 30 days of invoice receipt. Assessment will be done immediately after the service.
51.1	The <i>currency of this contract</i> is the	South African Rand (ZAR)

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51.2	The period within which payments are made is	Thirty (30) Days after receipt of a valid Tax 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	No data is required for this section of the <i>conditions of contract</i>.
7	Title	No data is required for this section of the <i>conditions of contract</i>.
8	Risks and insurance	Refer to Part C1.4
83.1	The Employer provides these insurances from the Insurance Table	Insurance against loss of or damage to the Plant and Materials comprising Contract Works Insurance, SASRIA Special Risks Insurance and Marine & Air Cargo insurance; and 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; 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 C1.4 to the contract ("the Insurance Schedule").
83.1	The Contractor provides these additional insurances	Professional Indemnity Insurance Note: The terms and other matters applicable to this insurance provided by the Employer are likewise detailed in section C1.4 to the contract.
83.2	The minimum amounts of cover or minimum limits of indemnity required for the insurance table	Refer to Part C1.4
9	Termination	No data is required for this section of the <i>conditions of contract</i>.
10	Data for main Option clause	

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E	Cost Reimbursable Contract	Tenderer is to provide pricing information for operation and maintenance as described in this document. Contractor will be reimbursed for any works required that is not due to improper maintenance. Refer to Section C2.
11	Data for Option W1	
W1.1	The Adjudicator is	The person appointed jointly by the parties from the list of adjudicators contained below
W1.2	The Adjudicator nominating body is	The current Chairman of Johannesburg Advocate's Bar Council
W1.4	The tribunal is	Arbitration
W1.4	If the tribunal is arbitration, 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)
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 Arbitrator 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	
X1	Price Adjustment for inflation	The index referred to in this clause shall be deemed to refer to the CPI index on the <i>starting date</i> as stated under section 30.1. Price adjustment for inflation shall only take place on contract anniversary
X2	Changes in the law	No data is required for this secondary option.
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	The Total Costs Incurred and/or Damages suffered to the Employer's property
X18.3	The Contractor's total liability to the Employer for defects due to his design which are not listed on the Defects Certificate is limited to	The Total Costs Incurred and/or Damages suffered to the Employer's property

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X18.4	The Contractor's total liability to the Employer for all matters arising under or in connection with this contract, other than 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, The Total Costs Incurred and/or Damages suffered to the Employer's property and applies in contract, tort or delict and otherwise to the extent allowed under the law of the contract. The excluded matters are amounts payable by the Contractor as stated in this contract for: - Loss of or damage to the Employer's property, - Defects liability, - Insurance liability to the extent of the Contractor's risks - death of or injury to a person; - infringement of an intellectual property right - The Total Costs Incurred and/or Damages suffered to the Employer's property
X19	Task Order	
X19.1	Task Order	No Data is required for this secondary option
Z	The <i>Additional conditions of Z1 – Z19 contract</i> are	
	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>Service 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 Service:	
Z2.1	Delete core clause 20.1 and replace with the following: The <i>Contractor</i> 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.	
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	
Z7	Limitation of liability:	
	Insert the following new clause as Option X18.6:	

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Z7.1 The *Employer's* liability to the *Contractor* for the *Contractor's* 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 *Contractor* 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 *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 not) of the *Contractor*.

Z8.2 The *Employer* 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 *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 the Contract.

Z9.2 The *Contractor* shall, within 1 week of the Contract Date, notify the *Service Manager* and the *Employer* of the key person who has the authority to bind the *Contractor* on their behalf.

Z9.3 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*.

Z10 Ethics

Z10.1 The *Contractor* 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 *Employer* is subject, including but not limited to the Prevention and Combating of Corrupt Activities Act, 12 of 2004.

Z10.2 The *Contractor's* breach of this clause constitutes grounds for terminating the *Contractor's* obligation to Provide the Works 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.

Z10.3 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, gratuity, 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.

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 *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* or the *Employer*, which consent shall not be unreasonably withheld.

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- Z11.2** 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*.
- Z11.3** This undertaking shall not apply to –
- Z11.3.1** Information disclosed to the employees of the *Contractor* for the purposes of the implementation of this agreement. The *Contractor* 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 *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;
- 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 *Service 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.
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Z12	<i>Employer's Step-in rights</i>
Z12.1	If the <i>Contractor</i> 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 <i>Service Manager</i> , the <i>Employer</i> , 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 <i>Contractor</i>) to do so on his behalf. The reasonable costs of such remedial works shall be borne by the <i>Contractor</i>
Z12.2	The <i>Contractor</i> co-operates with the <i>Employer</i> 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 <i>Contractor</i> under the contract or otherwise for and/or in connection with the <i>works</i>) and generally does all things required by the <i>Service Manager</i> to achieve this end.
Z13	<i>Liens and Encumbrances</i>
Z13.1	The <i>Contractor</i> keeps the Equipment used to Provide the Services free of all liens and other encumbrances at all times. The <i>Contractor</i> , vis-a-vis the <i>Employer</i> , 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 <i>Employer</i> , waive all liens they may have or become entitled to over such Equipment from time to time
Z14	<i>Intellectual Property</i>
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 <i>works</i> .
Z14.3	The <i>Contractor</i> gives the <i>Employer</i> an irrevocable, transferrable, non-exclusive, royalty free licence to use and copy all IP related to the <i>works</i> for the purposes of constructing, repairing, demolishing, operating and maintaining the works
Z14.4	The written approval of the <i>Contractor</i> is to be obtained before the <i>Contractor's</i> IP made available to any third party which approval will not be unreasonably withheld or delayed. Prior to making any <i>Contractor's</i> IP available to any third party the <i>Employer</i> shall obtain a written confidentiality undertaking from any such third party on terms no less onerous than the terms the <i>Employer</i> would use to protect its IP
Z14.5	The <i>Contractor</i> shall indemnify and hold the <i>Employer</i> 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 <i>Contractor's</i> design, manufacture, construction or execution of the Works
Z14.5.2	the use of the <i>Contractor's</i> Equipment, or
Z14.5.3	the proper use of the Works.
Z14.6	The <i>Employer</i> shall, at the request and cost of the <i>Contractor</i> , assist in contesting the claim and the <i>Contractor</i> may (at its cost) conduct negotiations for the settlement of the claim, and any litigation or arbitration which may arise from it.

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Z15 Dispute resolution:

Z15.1 Appointment of the Adjudicator

An *Adjudicator* is appointed Panel of

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

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

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Z15.2 Appointment of the Arbitrator

An *Arbitrator* is appointed when Panel of Arbitrators 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

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 Notification of a compensation event

- Z16.1** Delete “eight weeks” in clause 61.3 and replace with “four weeks”. Delete the words “unless the event arises from the Service Manager or the Supervisor giving an instruction, issuing a certificate, changing an earlier decision or correcting an assumption.”

Z17 BBBEE and Tax Clearance Certificates

- Z17.1** The *Contractor* shall be expected to annually present a compliant BEE Certificate and a Tax Clearance 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.

Z18 Communication

- Z18.1** **Add a new Core Clause** 14.5 and 14.6 to read as follows:
The *Service Manager* requires the written consent of the Employer if an action will result in a change to the design, scope, and Service information that is 5% or more
- Z18.2** The *Service Manager* requires the written consent of the Employer if an action will result in the Completion Date being extended by more than 30 days.

Z19 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:

- Z19.1** 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.

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PART C1.2b CONTRACT DATA

PART TWO – DATA PROVIDED BY THE *SERVICE PROVIDER*

Clause	Statement	Data
10.1	The Contractor is (Name): Address: Telephone No. Fax No.	
11.2	The <i>working areas</i> are	See C3 'Service 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:	

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Qualifications:

Experience:

11.2 The following matters will be included in the Risk Register

PART C1: AGREEMENTS AND CONTRACT DATA 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 (COLD 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: KING PHALO AIRPORT & CHIEF DAWID STUURMAN INTERNATIONAL AIRPORT.	
Physical Address:	
Airport Company South Africa King Phalo & Chief Dawid Stuurman Airport Walmer 68 Settlers Way King Phalo & Chief Dawid Stuurman 5200	& Chief Dawid Stuurman International Airport Allister Miller Dr, Gqeberha, 6070

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Hereinafter referred to as “Client”

Name of organisation:
Physical Address:

Hereinafter referred to as “the Mandatory/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 un-repealed 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

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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
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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 duly completed approved permit.

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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,

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
SOUTH AFRICA

DATE AIRPORT COMPANY

PART C1: AGREEMENTS AND CONTRACT DATA C1.4: ACSA Insurance Schedule

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

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- 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.

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**PART C1: AGREEMENTS AND CONTRACT DATA C1.5: 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. 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. 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. 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. Odours and emissions: All practical measures shall be taken to reduce unpleasant odours and emissions generated from work related activities. Fires: No open fires shall be permitted on site.
Noise Pollution	All reasonable measures shall be taken to minimize noise generated on site as a result of work operations. The Contractor shall comply with the applicable regulations with regard to noise.
Waste Management	Waste shall be separated as general or hazardous waste. General and hazardous waste shall be disposed of appropriately at a permitted landfill site should recycling or re-use of waste not be feasible. Under no circumstances shall solid or liquid waste be dumped, buried or burnt. Contractors shall maintain a tidy, litter free environment at all times in their work area. Contractors must keep on file: The name of the contracting waste company Waste disposal site used Monthly reports on quantities – separated into general, hazardous and recycled Maintained file of all Waste Manifest Documents and Certificates of Safe Disposal 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 labeled, stored and handled in accordance to Materials Safety Data Sheets. Materials Safety Data Sheets shall be stored with all HCS. All spillages of HCS must be cleaned-up immediately and disposed of as hazardous waste. (HCS spillages must be reported to ACSA immediately). All contractors shall be adequately informed with regards to the handling and storage of hazardous substances. Contractors shall comply with all relevant national, regional and local legislation with regard to 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.

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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 as a result of the infringement at his/her own expense.

I, _____ (name & surname) of _____

_____ (company) 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)

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PART C2: PRICING DATA

C2.1 Pricing Assumptions

The intended pricing strategy to be followed in this tender is according to the Price List (including the activity schedule).

The Contract Data, Service information, drawings and any other documents relevant to this tender must be read in conjunction with the Activity Schedule.

The *Contractor* must plan the work in this contract as a set of activities. These should be the same activities as he shows on his programme (Plan for the service).

This schedule covers the items that will be measurable. A lump sum price for each activity shall be entered and no other items will be measured. Costs not covered by the items may be included in the most appropriate items listed. The *Contractor* has the liberty to insert items, quantities and rates of his own choosing in the said schedule as a separate line item.

The pricing schedule as completed by the *Contractor* shall be VAT exclusive prices and shall cover, "inter alia" all general risks, liabilities, obligations, profit, expenses, costs, bonuses, all allowances such as shift and standby allowances, sick-leave, other leave, brackets, fixings, incidentals, consumables etc. that will be required to successfully complete this contract as set forth or as implied in the documents on which this contract is based.

The *Contractor* is to take note that payment is made for each activity only when it is complete. "Complete" as it is used in this schedule means the complete system or unit as specified in the particular document. Unless a separate rate for the supply and for the installation of any item is specifically called for, the supply and installation costs of any item shall be fully included in the price.

The description of each item shall, unless otherwise stated herein, be held to include making, conveying and delivering, unloading, storing, unpacking, hoisting, setting, fitting and fixing in position, cutting and waste, patterns, models and templates, plant, temporary works, return of packaging, establishment charges, profit and all other obligations arising out of the contractual conditions.

The quantities and rates included for day work shall form part of the tender price, but Contractors shall note that this item must be regarded as provisional and will only be payable to the *Contractor* if and when a written order to this effect has been issued.

"Foreign" shall mean the CIF (Cost, Insurance and Freight) value.

No alterations to the original text shall be allowed. If any alterations are made, it shall be ignored and the original wording will apply.

Variations in the scope and extent of the work shall be allowed to meet the *Service Manager's* requirements and shall be measured and priced at the rates entered in the Activity Schedule, where appropriate, and shall form an addition to or deduction from the total of the Accepted Contract Amount. Any items or variations for which rates have not been included in the Activity Schedule shall be agreed and priced as non-scheduled items (Part 2 below).

All provisional sums and contingency amounts shall be expended as directed by the *Employer* and any balance remaining shall be deducted from the contract sum.

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All items described as "provisional" shall be measured as executed and paid for according to prices in the activity schedule and any amounts not spent shall be deducted from the contract price. No work for which "provisional" items are provided shall, commence without a written instruction from the *Employer*.

No commitment to expending any portion of the contingency amounts and /or provisional sums are made or implied by the *Employer*.

The *Contractor* shall not be entitled to any claim in instances where provisional sums are partially or in total removed from the contract.

The main cost drivers for this contract are the required labour, maintenance intervals as set out by the IEC standards for Solar Plants and Manufacturers OEM recommendation. Spare part costs for major maintenance service will also form part of the cost drivers.

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C2.2 The Price List

Part A: Activity Schedule: Once off Repairs for CDSIA

TABLE A: BILL OF QUANTITIES - CDSIA 1000kWp Solar Plant				
Description – Once Repairs	QTY	UNIT	RATE	TOTAL Excl.
	(A)		Excl. Vat	Vat (SA Rands)
			(B)	(A x B)
<u>SUPPLY, DELIVERY, INSTALL AND COMMISSIONING THE FOLLOWING:</u>				
Inverters - with required number of MPTs for the string configuration with all mounting, cable terminations, and accessories or equivalent size to make up total of minimum 1000kWp Quantity _ X Size Inverter _ = Total _ kW	25	No.	R	R
New Solar panels with mounting and termination accessories Solar Panel or equivalent size to make total of 17.5 kWp Quantity X Size Panel.... = Total _ kW	50	No.	R	R
Single Core 6mm² PV DC cable, repair of tales (180)	5000	m	R	R
Panels and termination of strings to inverter 4-core 16 mm² AC Cable with two joint kits for termination at inverter	500	m	R	R
4-core 16 mm² AC Cable with two joint kits for termination at inverter	5	m	R	R
6mm² Bare Bonding Wire to panel and inverter to earthing	3000	m	R	R

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Export Power Manager •Huawei Fusion Solar products communications platform or equivalent including Fuses, CB, CTs and Housing panel to latest or new platform	1	No.	R	R
Communication cable from Inverter to power manager at point of supply. To run above AC cable inside building cable rack and 20 meters trenching to nearest inverter	3000	m	R	R
Trenching including sleeves, trench depth 600mm and 110mm sleeve for DC cables for strings to Inverter	1000	m		R
Commissioning				
Do load Management and Synchronize Solar system with grid make sure it priorities load from solar up to a certain percentage and to switch between grid and solar seamlessly during sunrise, sunset and outages: NB It must not only work as backup to generators but as primary supply during the day than switch to the grid at night.	Sum	Sum	R	R
Commissioning including drawings, Certificate of compliance and professional sign off, handover pack (Issuing of CoC)	1	No.	R	R
TABLE A - SUB-TOTAL EXCLUSIVE VAT (carried forward to Table G)			R	R

TABLE B: Preliminary and General (P&Gs) Per Year				
Description (Provisional amounts will be pain on proven payments only)	QTY	UNIT	RATE	TOTAL Excl.
	(A)		Excl. Vat	Vat (SA Rands)
			(B)	(A x B)
Site establishment and removal for CDSIA	1	SUM	R	R

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Provisional sum for Permits - CDSIA	1	SUM	R 20 000,00	R 20 000,00
Provisional sum for Permits - KPA	1	SUM	R 20 000,00	
Safety File - CDSIA	1	SUM	R 10 000,00	R 10 000,00
Safety File - KPA	1	SUM	R 10 000,00	R 10 000,00
Provisional sum for AIT, AVOP & Security Awareness Trainings - CDSIA	1	SUM	R 25 000,00	R 25 000,00
Provisional sum for AIT, AVOP & Security Awareness Trainings - KPA	1	SUM	R 25 000,00	R 25 000,00
Supply of the As- built drawings for CDSIA	1	SUM	R 40 000,00	R 40 000,00
Provisional sum for modification of the existing panels/any unforeseen maintenance - CDSIA	1	SUM	R 100 000,00	R 100 000,00
Provisional sum for modification of the existing panels/any unforeseen maintenance - KPA	1	SUM	R 100 000,00	
Provisional Sum for System Training - CDSIA	Prov Sum	Prov Sum	R50 000	R50 000
Provisional Sum for System Training - KPA	Prov Sum	Prov Sum	R50 000	R50 000
Provisional Sum: Performance Monitoring, Evaluation & Optimisation: Refer to Annexure B(11) - CDSIA	Prov Sum	Prov Sum	R50 000	R50 000
Provisional Sum: Performance Monitoring, Evaluation & Optimisation: Refer to Annexure B(11) - KPA	Prov Sum	Prov Sum	R50 000	R50 000
TABLE B - SUB-TOTAL EXCLUSIVE VAT (carried forward to Table G)				R

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TABLE C: CDSIA 1000kWp Solar Plant PREVENTIVE MAINTENANCE					
Service Description	UOM	Quantity (a)	Rate per cleaning (Excl. VAT) (SA Rands) (b)	Frequency (c)	Year 1 Excl. Vat (SA Rands) Z= (a) x (b) x (c)
Module Cleaning: Refer to Annex B (1)	Each	2906	R	6	R
Module Connection Integrity: Refer to Annex B (2)	Sum	Sum	R	3	R
Junction / String Combiner Box	Sum	Sum	R	3	R
Hot Spots: Refer to Annexure B(4)	Sum	Sum	R	1	R
Inverter Servicing: Refer to Annexure B(5)	Each	25	R	1	R
Structural Integrity: Refer to Annexure B(6)	Sum	Sum	R	3	R
Vegetation Control: Refer to Annexure B(7)	Sum	Sum	R	12	R
Balance of Plant: Refer to Annexure B(8)	Sum	Sum	R	12	R
General: Refer to Annexure B(9)	Each	12	R	12	R
Cost for Water trailer for Cleaning				12	
TABLE C – Sub-Total Annual Maintenance for 5 years Exclusive VAT (carried forward to Table G)					R

TABLE D: KPA 650kWp Solar Plant PREVENTIVE MAINTENANCE					
Item Service Description	UOM	Quantity (a)	Rate per cleaning (Excl. VAT) (SA Rands) (b)	Frequency (c)	Year 1 Excl. Vat (SA Rands) Z= (a) x (b) x (c)
Module Cleaning: Refer to Annex B (1)	Each	1970	R	6	R

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Module Connection Integrity: Refer to Annex B (2)	Sum	Sum	R	3	R
Junction / String Combiner Box	Sum	Sum	R	3	R
Hot Spots: Refer to Annexure B(4)	Sum	Sum	R	1	R
Inverter Servicing: Refer to Annexure B(5)	Each	16	R	1	R
Structural Integrity: Refer to Annexure B(6)	Sum	Sum	R	3	R
Vegetation Control: Refer to Annexure B(7)	Sum	Sum	R	12	R
Balance of Plant: Refer to Annexure B(8)	Sum	Sum	R	12	R
General: Refer to Annexure B(9)	Each	12	R	12	R
Cost for Water trailer for Cleaning	sum	sum	R	12	
TABLE D – Sub-Total Annual Maintenance for 5 years Exclusive VAT (carried forward to Table G)					R

PART E: CDSIA Corrective Maintenance and Critical Spares Supply

Description	(a) Qty	(b) Unit of Measure	(c) Price / Unit	(d) Per Year	Price per year Excluding VAT (a) x (c) x (d)
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Call Outs Allowance – Call out include return travelling, first 2 hours onsite and one day accommodation (where applicable)					
Estimated Call outs	10	Each	R	1	R
Sub-total Excluding VAT					R
Critical Spares Supply – Contractor to complete using the total provisional sum of R200,000 for each row as maximum value to determine markup percentage					
Value of Items		(Z) Mark up (contractor to complete)	(Y) Provisional spares amount for budget purpose		[Y*(1+Z%)] Total Mark-up values to be budgeted (contractor to complete)
R0 - R2,000		%	R 10 000		
R2,001 - R5,000		%	R 20 000		
R5,001 - R10,000		%	R 50 000		
R10,001 - R50,000+		%	R 120 000		
Provisional Sum Sub Total Excluding VAT			R 200 000		
Sub-total (Estimated Call out + Provisional Sum) PART E: Excluding VAT					R

PART F: KPA Corrective Maintenance and Critical Spares Supply

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Description	(a) Qty	(b) Unit of Measure	(c) Price / Unit	(d) Per Year	Price per year Excluding VAT (a) x (c) x (d)
Call Outs Allowance – Call out include return travelling, first 2 hours onsite and one day accommodation (where applicable)					
Estimated Call outs	10	Each	R	1	R
Sub-total Excluding VAT					R
Critical Spares Supply – Contractor to complete using the total provisional sum of R200,000 for each row as maximum value to determine markup percentage					
Value of Items		(Z) Mark up (contractor to complete)	(Y) Provisional spares amount for budget purpose		[Y*(1+Z%)] Total Mark-up values to be budgeted (contractor to complete)
R0 - R2,000		%	R 10 000		
R2,001 - R5,000		%	R 20 000		
R5,001 - R10,000		%	R 50 000		
R10,001 - R50,000+		%	R 120 000		
Provisional Sum Sub Total Excluding VAT			R 200 000		
Sub-total (Estimated Call out + Provisional Sum) PART F: Excluding VAT					R

PART G: PRICE SUMMARY FOR ONE YEAR

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Description			Price		
Price brought forward from Part A			R		
Price brought forward from Part B			R		
Price brought forward from Part C			R		
Price brought forward from Part D			R		
Price brought forward from part E			R		
Price brought forward from part F			R		
Sub-total per year Excluding VAT			R		
Five (5) Year Contract Price	Annual Price	Escalation %	Escalation Value	Total Excl VAT	
Year 1					
Contract Value for Year 1 (Excl.VAT)	R	0%	N/A	R	
Year 2					
Contract Value for Year 2 (Excl.VAT)	R	6%	R	R	
Year 3					
Contract Value for Year 3 (Excl.VAT)	R	6%	R	R	
Year 4					
Contract Value for Year 4 (Excl. VAT)	R	6%	R	R	
Year 5					

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Five (5) year contract (excluding VAT and Including escalations)	R	6%	R	R
VAT				R
TOTAL Five-year contract Inclusive VAT and escalations (This amount must be carried to C1.1 Form of Offer)				R

Solar Maintenance Expenditure for five years

*this amount to be carried over to Form of Offer and Acceptance

Contract values will be increased/decreased according to the CPI. 6% CPI price escalation per annum should be used for illustrative and comparison purposes.

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* Travelling time charges or allowances will not be paid separately and where applicable must be included in the rates above.

* A Parking access card will be applied for and issued in order to facilitate access through the entrance and exit booms. This card is payable in cash at the start of each calendar month – at the Parking Office. This card shall only be utilised for the purpose of performing duties under this SLA. Any abuse of the use of this card for personal use shall be penalised at R500.00 per occurrence.

It is important to note that not all amounts above are payable in any one month. Since this is an activity schedule only the activities performed and completed shall be claimed for at invoice date and paid for accordingly.

Labour rates and Mark-up

Any work not included under Part 1 above shall be deemed additional work or non-scheduled items and will be charged at the following rates:

Labour

Item	Description	Normal hours (Including Saturdays) (R/hour)	After hours (R/hour)	Sunday (R/hour)
1	Labourers			
2	Semi-skilled			
3	Skilled			
4	Site Manager			
5	Engineer / Technologist			

All rates to exclude VAT. Subject to mutual agreement between the *Employer* 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 only.

Part 2: Additional Work / Non-Scheduled Items

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Description The Contractor must provide descriptions of the employees involved on this contract based on his submitted Resource Proposal.	Quantity per Individual		Total / year
Labourers			
Semi-skilled			
Skilled			
Engineer / Technologist			
Labour subtotal B (per year) Excluding VAT		R	

Call out rates must include all required travelling and the first hour on site.

Note: Call outs are not chargeable during hours of Scheduled maintenance, where the *Contractor* is already on site

Mark-up (third party procured items/services)

Cost shall be net cost (excluding VAT) of parts delivered to site with all discounts deducted. Original Tax Invoices from the service providers to be submitted with the *Contractor's* invoice.

Part 3: Spares list

The spare list must be prepared based on tenderers best current spares prices (excl. VAT). The actual costs of spares will be reimbursed on submission of invoices and suppliers supporting documents. All verified invoices will be paid including the agreed mark-up percentages.

Provisional sum shall be allowed for in the spares cost inserted as a line item in the bill of quantities. All verified invoices will be paid including the mark-up percentages stipulated

The contractor must provide as part of the maintenance manual, a list of spare parts.

Contract value

The guide below must be used in estimating the contract value. This amount must be reported as the Contract Value in the corresponding schedules. Tenderers 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.

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Document reference	Title	No of pages
C3.1	This cover page <i>Employer's Service Information</i>	1
	Total number of pages	

PART C3: EMPLOYER'S SERVICE INFORMATION**Contents**

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1 Description of the service

1.1 Executive overview

The objective is to operate and maintain the serviceability of the Solar plant as guided by the OHS act and applicable standards and codes of practice for PV plants, at King Phalo & Chief Dawid Stuurman Airport in a sustainable manner within operating and maintenance (O&M) cost parameters, while ensuring compliance to general safety, aviation legislation, BS, IEC (62446, 60364-6), NRS & SANS. The contractor shall be responsible for the maintenance and performance of the plant as well as the training of ACSA staff to take over the responsibility after the O&M stage. The footprint of the Affected Property is detailed in Annex A as part of C4 (Site Information).

1.2 Detailed scope of Works

The service provider should operate and maintain these plants effectively and optimally to ensure that the annual energy yield does not deteriorate beyond the design specification of 0,4% per annum.

The scope of work will consist of Part A (Repairs) and Part B (Maintenance for a period of 5 years) for CDSIA and only maintenance for KPA (for a period of 5 years) which will include (but not limited to) the following to be done according to Schedule:

The appointed competent service provider to:

- Conduct repairs which include, supply inverters and Solar panels, install, test, reconfigure strings to new inverters and commission the ground mounted solar photo voltaic plant at CDSIA

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- Inspect, clean, maintain, report, and conduct repairs as and when required on solar photo voltaic plants (listed in tables below) for CDSIA & KPA for a period of five years.

SECTION A – Scope of Work for Once Off Repairs of Solar Plant (CDSIA only)

The successful bidder is required to re-configure the existing solar plant, at CDSIA, using existing panels and infrastructure, combined with new solar panels and new inverters. The detailed scope will include, but not limited to:

- Reconfigure the system to achieve 1000 kWp of the system,
- Supply new solar panels and repair existing terminations,
- Supply new solar Inverters,
- Supply AC cabling, DC cabling and earthing cable,
- Supply and install/Configure Solar export manager with communication cabling and network access to solar platform,
- Removal of damaged equipment and Installation and commission of new equipment including signing off by an Electrician with wireman's /Technician with Pr Tech or higher (Professional Technologist with Pr.Tech or Professional Engineer Pr. Eng)
- Provide required drawings for the repaired PV plant

Original Solar PV System

The Key elements of the original design, prior to its damage, were as follows:

- 1000kWp solar PV system,
- 25 x Huawei (WC Rubicon) inverters, (Sun2000-35KTL-M0)
- 350 Wp Jinko JKM-P Modules
- 2906 Modules in Total -21 strings with ((each Panel 350W)

22 strings have 4 (14 Photovoltaic modules each) and 4(15 Photovoltaic modules each) =2552 3 strings have 2 (14 Photovoltaic modules each) and 6(15 Photovoltaic modules each) = 354

- Huawei Fusion Solar products communications platform for online monitoring, - NetEco 1000S
- Ground-mount frame for solar panels,
- Ground-mount frame for mounting of solar inverters and • AC Distribution board and metering panel.
- Step up Transformer

Damaged Equipment

•Bidders will be allowed, during the site briefing session, or scheduled appointment with SCM to also conduct their own assessment of the solar plant to determine equipment that can be salvaged and used for the re configuration of the system.

Detailed Breakdown of the Scope for Once-off Repairs

Part 1 Solar Panels:

- Configure new installation based on assessment of existing solar plant, including new additional solar

Line	Description	Quantity
1	Panels with no repairs required,	2856
2	Panels that require repairs to tails and install DC plugs	50 (10 damaged, 40 missing)
	Total Panels	2906

panels to achieve 1000kWp PV system. The number of new panels will be based on the specification (kW) capacity and not restricted to the number of missing panels. Summary of panels that must be repaired and reused.

Usable panels: 2906 x 350W = **1017kW (350)**-Designed originally

50 x 350 =**17.5kW** Missing

Required new Solar panels Total kw: 1017 kW- 17.5kW = 9999.9 **kW**

- Repair tails and DC plugs (50 pairs) of existing solar panels (DC plug) based on condition assessment during site visit or scheduled visit with SCM.
- In some instances, due to specification of old panels, relocate old panels to complete other strings within the system.
- This will also include removal of any damaged solar panels.

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- e. Install DC cabling forming new strings based on new configuration including terminations at new inverters. This will include trenching for DC cables based on location of new inverters.
- f. The solar PV modules must meet IEC 61215 ed 2.0(2005-04) standards.
- g. Price for the above works must include for all accessories including bolts, nuts, lugs, and consumables to make the photovoltaic module installation complete. Bolts and nuts for solar panels mountings must be stainless steel and be lubricated.
- h. Bidders must also cater for the maximum use of existing panels to limit use of new panels.
- i. Warranty of new panels installed will be separated from repaired panels and any disclaimers must be included in the warranty schedule

Part 2 Solar Inverters

- a. Test, update firmware and Commission existing functional inverters and install new grid-tied solar inverters where necessary to achieve 1000kWp PV system.
- b. Existing solar inverters installed on site is a Huawei (WC Rubicon) brand. Preference for the above to monitor on either platform will be ideal or an equivalent brand that can be monitored online.
- c. Remove exiting inverters, install, and mount new inverters on existing plinths using anti corrosive bolts and nuts,
- d. Existing inverter mounts will have to be de-rusted and painted if they are being used.
- e. Solar inverters must be linked via communication network so that real-time monitoring of production from solar PV system can be possible.
- f. Price for the works must include for all accessories including bolts, nuts, lugs, and consumables to make the inverter installation complete.
- g. There is an existing No volt contactor that operates when the municipal power supply is interrupted, and the standby generator starts up. This is configured so that the standby generator does not back feed into the solar inverters.
- h. AC cabling based on the inverter specification must be installed from the inverter to the solar AC DB located at the solar plant. This will include trenching for the cable installation.
- i. The installation must be designed to comply with standards as specified under NRS 097-2-1: Ed 2010.
- j. The PV plants must adhere to the power quality requirements as stipulated in NRS048-2 and in IEC 61727 in terms of voltage, flicker, frequency, and harmonics.
- k. Grid inverters must meet the Grid interconnection of small-scale embedded generation as per the NRS 097-2-1: Ed 2010 standard.
- l. The solar PV plants should meet the safety and protection requirements as stipulated in NRS097-2-1. The system must also comply with the DC current injection limits as set by IEC 61727. All systems should be rated to withstand the relevant weather conditions.

Part 3 Earthing

- a. The earthing installation must discharge any electrical energy under fault conditions or guard against lightning strikes. Surge protection is installed within the AC DB.
- b. All inverters and solar panels must be earth bonded.
- c. Existing lightening protection must be repaired on the solar farm site.
- d. There is an existing 50mm square single copper bar available for earth daisy chain bonding.
- e. Price for the works must include for all accessories including bolts, nuts, lugs, and consumables to make earthing work complete.

Part 4 Commissioning

- a. All operating and maintenance manuals will have to be provided at the end of the project. This should include shutdown procedures, system description, maintenance instructions, installation record, system details, as-built drawings, and data sheets of components. The pack will be in hard copy and soft copy for archiving purposes.
- b. All testing documents must form part of the handover pack.
- c. All electrical works must include certificate of compliance, and the design must be signed off by an ECSA registered electrical Professional A.

Guarantee and Warranty

Bidders are to take the following guarantee and warranty requirements into consideration:

- warranty conditions for repairs and work conducted during five-year period must be clearly stipulated as follows:
 - Warrantee on new panels installed.
 - Warranty on repairs conducted to solar installation. ○ Warrantee on new inverters.

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- Life expectancy of the new solar panels should be stipulated.
- All guaranty / warrantee documents are to be provided to ACSA on completion of works

Section B: Scope of Work for 5-year Maintenance of ACSA-CDSIA & KPA Solar plants

The maintenance being carried out on the CDSIA & KPA solar PV plants must aim to achieve maximum system efficiency to ensure a return on investment. The maintenance scope of work is broken down as follows:

- Annual inspection and maintenance
- Bi-annual system cleaning services
- Repairs, Ad-hoc system fault finding/diagnosis on a call-out basis, including the supply of spare parts and the execution of repairs to the existing solar plants.
- Migrate the devices connected to the NetEco 1000S to the FusionSolar Smart PV Management System (FusionSolar for short) as the NetEco 1000S will be out of service on June 30, 2026, for CDSIA & KPA
- Maintenance of communication system for solar PV plant at CDSIA & KPA
- Step up Transformer Maintenance as and when require

Description of Solar Plant

CDSIA				
Description	Panels	Inverters	Size	Mounting
B. quantity of panels and inverters will vary based on repairs conducted as part of Part A above	350 Wp Jinko JKM-P Modules 2906 panels, 200x100x4.5(90sq.m)	25 x Huawei (WC Rubicon) inverters	1000kWp	Ground mount

KPA				
Description	Panels	Inverters	Size	Mounting
C. quantity of panels and inverters will vary based on repairs conducted as part of Part A above	330 Wp Jinko JKM-P Modules 1970 panels, 1956x992x40mm	16 x Huawei inverters	650kWp	Ground mount

- Solar PV Module cleaning and maintenance
- Solar PV Module connection integrity and maintenance
- Junction/String combiner box integrity and maintenance
- Thermographic imaging and corrective action
- Inverter maintenance
- Structural integrity and maintenance
- Auxiliary and ancillary systems maintenance
- Vegetation control

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- Earthing Maintenance
- LV cabling maintenance
- Spare parts management and inventory control
- Verification and calibration of metering equipment
- Additional to ACSA security, surveillance cameras to cover the whole solar plant area The following will also be required as part of the scope of works:
- Real-time performance monitoring and reporting showing the total yield of the plant, the kWhs used by the airport and the kWhs exported to the grid
- Monthly service reports detailing all the maintenance and corrective actions with root cause analysis where relevant, including the performance of the plant and comparison against the expected performance of the plant with real time performance monitoring results
- Corrective maintenance
- Knowledge Transfer to ACSA employees per solar PV plant every quarter, which must cover the entire maintenance contract on technical issues as well as administrative tasks, competencies required and practical experience which must be acquired during the management of the contract
- Preparation and lodging of claims on equipment warranties/guarantees on behalf of ACSA

The maintenance must be performed according to the Original Equipment Manufacturer (OEM) Specifications as a minimum and ensure that output of the plant is optimized while ensuring longevity of plant equipment, without causing safety or health hazards to the environment or people. Maintenance Activity Schedule is detailed in Annex B.

1.3 Employer's requirements for the service

The *Contractor* will 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 Aviation regulation and safety standards as well as any applicable governing law and/or regulations. Where standards differ from those required by this document the more stringent requirement shall apply. The *Contractor* will be fully responsible for obtaining (and keeping up to date with) said requirements.

The *Contractor's* main objective is to ensure that all equipment is effectively maintained and operating within all the relevant safety and quality compliances in order to ensure reliability of electrical supply needed for airport operations. It is essential that preventative maintenance is administered at the appropriate intervals to achieve this objective.

Compared to most other power generating technologies, PV plants have low maintenance and servicing requirements. However, proper maintenance of the PV plant is essential to optimise energy yield and maximise the life of the system.

The Scheduled Maintenance activities are detailed in Annex B as part of C4 (Site Information).

Detailed Scope of Works as per Annexure B below

1.4 Interpretation and terminology

The following abbreviations are used in this Service Information:

Abbreviation	Meaning given to the abbreviation
ACSA	Airport Company South Africa
AC	Alternating Current, is an electric current in which the flow of electric charge periodically reverses direction
BS	British Standards
CMMS	Computerised Maintenance Management System (Oracle EAM software platform)
DC	Direct Current, the flow of electric charge is only in one direction

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ICAO	International Civil Aviation Organization
IEC	International Electro Technical Commission
LV	Low Voltage = < 1 000V
MV	Medium Voltage Ranging from 1 000V to 11 000V
ME	Maintenance Engineering Department
OEM	Original Equipment Manufacturer
O&M	Operation and Maintenance - of the Solar Plant
ORHVS	Operational Regulations for High Voltage Systems
PM	Preventative & Predictive Maintenance Work Orders
Plant or PV Plant	Embedded photovoltaic solar power plant
PV	Photovoltaic
SANS	South African National Standards
SCADA	Supervisory control and data acquisition, is a system for remote monitoring and control that operates with coded signals over communication channels.
SOP	Standard Operating Procedure
OHS act	Occupational Health and Safety act.
FAGG	George Airport
WO	Corrective & Dispatched Work Orders

2 Management strategy and start up.

2.1 The Contractor's plan for the service

Prior to the activation of this contract, the contractor must submit his plan (contractor's plan for the intended services) for approval by the employer, which should provide a matrix detailing the following:

All the various infrastructures (PV Panels, Cables, Inverters, MV Circuitry, LV circuitry, etcetera) must be referenced against the three-year time-axis to indicate when exactly each service activity (daily, weekly, monthly, 6 monthly, 12 monthly) will be performed.

The plan must also aim to schedule the activities with reference to the contractor's available manpower with the airport's operational hours which is detailed below. The importance is to find the balance between when to maintain the infrastructure without impeding too much on the electricity generating ability of the plant. Preferably all maintenance must be performed during night hours.

- The airport's operational hours are detailed as follows:

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- Monday to Thursday 06H00 to 19H00
- Friday 06H00 to 20H00
- Saturday 08H00 to 15H00
- Sunday 08H00 to 19H30

The airport's operational hours are published in the AIP for FAGG and can change based on operational requirements from time to time.

The submitted Contractor's Plan will form part of Annex C to C4 (Site Information) and shall be referenced against the EOM recommendations of the newly installed PV Plant as well as the submission which was made for operation and maintenance, with the tender award.

Together with the submitted plan, the *Contractor* shall provide a Schedule of equipment and tool, which will be used on this contract. The list will form part of the tender return schedules. The equipment will be judged in conjunction with the *Contractor's* Plan for the service to understand whether or not the bidder has fully understood his obligations and whether he is able to do the work

The submitted Contractor's Schedule of equipment and tools will be attached as Annex D to C4 (Site Information).

2.2 Management meetings

Contract performance meetings will be set up from time to time between the Contractor and the Employer's Service Manager. The scheduling of these meetings will be at the discretion of George airport as and when required. The meetings will be conducted formally where contract KPI's will be discussed. The Contractor needs to ensure the availability of the representative with a delegated authority to attend these meetings. The meeting minutes will be recorded and distributed to the contractor electronically for record keeping and actioning of the agreed activities.

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

Title and purpose	Approximate time & interval	Location	Attendance by:
Overall contract progress and feedback, Risk register and compensation events	Monthly on the last day Thursday of every month at 10H00	King Phalo & Chief Dawid Stuurman Airport – ACSA Offices	<i>Employer and Contractor and others as and when required</i>

Meetings of a specialist nature may be convened as specified elsewhere in this Service Information or if not so specified by persons and at times and locations to suit the Parties, the nature and the progress of the service. Records of these meetings shall be submitted to the *Service Manager* by the person convening the meeting within five days of the meeting.

All meetings shall be recorded using minutes or a register prepared and circulated by the person who convened the meeting. Such minutes or register shall not be used for the purpose of confirming actions or instructions under the contract as these shall be done separately by the person identified in the *conditions of contract* to carry out such actions or instructions.

2.3 Contractor's management, supervision and key people

The *Contractor* shall submit an organogram (as part of the Returnable Schedules) showing his people and their lines of authority / communication. This is specifically essential if the contractor is a Joint Venture. The submitted Contractor's Organogram will be attached as an Annexure.

In addition, the *Contractor* shall submit a Resource Proposal for approval which will indicate the intended personnel which will be allocated to perform duties under this contract. This Resource Proposal must be

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submitted as part of the Returnable Schedules. The submitted Contractor's Resource Proposal will be attached as Annex F of C4 (Site Information). This will, as a minimum, include all persons from the Contract Manager level to the Semi-skilled labourers. For the full duration of this contract, none of these persons will be replaced by a person of lesser ability or qualification. In the event of a person being replaced the Contractor must inform the *Service Manager* prior to the replacement and also submit an amended Resource Proposal accordingly.

All instructions and authorisations on this contract will come from the client's Service Manager or his defined representative.

Whilst the contractor (all staff and sub-contractors) is active within the contract's physical boundaries and timeframes, all their representatives will adhere to the following:

1. Wear a clearly marked (company name and type of services, i.e., electrical contractor) reflector jacket or vest.
2. Comply with all ACSA safety and Environment procedures.
3. Comply with all ACSA AVSEC and ARFF procedures
4. Behave in a professional and lawful conduct
5. Be courteous to all ACSA customers and stakeholders

2.4 Documentation control

These contract deliverables will interact extensively with ACSA's CMMS system, which will produce scheduled PM and WO (documentation) that must be completed within the agreed timeframes. The work orders will have unique reference numbers. All additional specific / specialized inspection and maintenance sheets must be attached to the appropriate work order and submitted to the ACSA CMMS coordinator.

Monthly progress reports should be submitted timeously by no later than the 3rd day of the following month, where reference must be made of all completed PM's and WO's. The monthly report must have the following minimum information & sections defined in Annex G - SLA Monthly Service Report Template.

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

1. system availability (averaged per week)
2. system performance testing
3. maintenance work (including % of scheduled maintenance work completed)
4. daily checks performed
5. maintenance plan for the next month
6. the latest spares inventory
7. Asset register up to date including equipment data
8. Outstanding maintenance issues

The contractor shall keep copies of all reports for at least five (5) years from the issue date. All reports shall be in a format as agreed with the Service Manager from time to time.

2.5 Invoicing and payment

Within one week of receiving a payment certificate from the *Service Manager* in terms of core clause 51.1, the *Contractor* provides the *Employer* with a tax invoice showing the amount due for payment equal to that stated in the *Service Manager's* payment certificate.

The *Contractor* shall address the tax invoice to Finance Department and include on each invoice the following information:

Name and address of the *Contractor* and the *Service Manager*;
 The contract number, Blanket Purchase Order Number and title;
Contractor's VAT registration number;
 The *Employer's* VAT registration number 4930138393;
 Description of service provided for each item invoiced based on the Price List;
 Total amount invoiced excluding VAT, the VAT and the invoiced amount including VAT; (add other as required)

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2.6 Insurance provided by the Employer and Service Provider

Refer to the section C1.4 above under PART C1: AGREEMENT AND CONTRACT DATA

2.7 Training workshops and technology transfer

The Solar plant technology is new to King Phalo & Chief Dawid Stuurman airport and requires specialised maintenance procedures and monitoring equipment for efficient operations and analysis. The *Contractor* is therefore expected to improve the efficiency of the associating assets and equipment on a regular basis. This will ultimately impose amendments to current ME procedures and drawings - even to the extent that new supplement procedures and drawings are developed.

With the above in mind, the *Contractor* shall as part of the service present such efficiencies; new technologies & new procedures, in a manner which can be used as training workshops to the ACSA electrical team. The format of the presentations may be in the form of SOP, Power Point Presentation, Movie Clip, etcetera. It is expected that the contract host these training workshops every 3 months and may book the utilisation of the ACSA boardroom facilities through the Service Manager.

Training workshops shall target practical competencies with reference to preventative- and breakdown maintenance activities, of all the electrical team members. The contractor shall create and develop a "Training File" which must be handed over at the end of every 3 months with the following information:

- Topic of Training
- Operational and Technical Manuals with drawings, of specific equipment involved
- Attendance Register of attendees
- Movie clips of physical activities performed to demonstrate competence of attendees.
- Pictures where applicable
- Etcetera

2.8 Design and supply of Equipment

The Service Manager will require viewing and a demonstration on all equipment the *Contractor* for usage as per the scope of work. Reason being that the *Service Manager* will want to satisfy him/herself that the equipment is of good quality, sustainable and appropriate for the works. However, all maintenance, repairs and liability remains with the *Contractor* as equipment belongs to him/her.

2.9 Things provided at the end of the service period for the Employer's use

2.9.1 Equipment

The *Contractor* shall hand-over any equipment and tools which was procured during the service period and claimed for to be paid by the *Employer*.

2.9.2 Information and Other Things

During the duration of the contract, the Contractor will acquire extensive intellectual property about the associated assets, equipment and procedures. Any such intellectual property must be handed over to ACSA at the end of the Service period. These will include, but is not limited to, the following:

1. Reports
2. Memorandums
3. Drawings
4. Operating manuals
5. Service history books

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6. Pictures
7. Movie Clips
8. Audio Clips
9. Spread sheets / Data bases
10. Meeting minutes
11. Communiqués
12. Files
13. Warranties

2.10 Management of work done by Task Order

Not Applicable

3 Health and safety, the environment and quality assurance

3.1 Health and safety risk management

The *Contractor* shall comply with the health and safety requirements contained in section C1.3 above under PART C1: AGREEMENT AND CONTRACT DATA

The *Contractor* shall be fully responsible for compliance to the Occupational Health and Safety Act for all its employees on site, equipment and installations relating to this contract. The *Contractor* is expected to sign the undertaking in this regard.

It shall be the *Contractor's* responsibility to ensure that all relevant labour, safety legislation and applicable compliance are adhered to in this contract. Regulations as set out in the safety induction shall be obeyed at all times.

The *Contractor's* employees on site shall obey all health and safety rules, procedures and practices. In particular, 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 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, emergency assembly points 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 *Employer* 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.

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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 so as to prevent fire hazards.

The *Contractor* is required to issue all staff with standard uniforms. This shall as a minimum include: safety shoes, overalls (clearly marked with *Contractor's* company logo) and numbered reflective jackets (as per Airport requirements). 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.

3.2 Environmental constraints and management

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:

1. allow any pollutive or toxic substance to be released into the air or storm water systems
2. interfere with, or put at risk, the functionality of any system or service
3. cause a fire or safety hazard

King Phalo & Chief Dawid Stuurman Airport has an ISO 14000 accreditation. This will need to be maintained at all times by ensuring that Environmental legislation are followed and adhered too.

The Contractor shall comply with the environmental criteria and constraints stated in section C1.5 above under PART C1: AGREEMENT AND CONTRACT DATA

3.3 Quality assurance requirements

Emphasis must be on improving system reliability and on ensuring that rostered maintenance work is indeed performed as and when required.

The *Contractor* shall ensure that works are carried out as per the Airport Company South Africa procedures and OHS act. Inspections prior and post work are to be carried out to ensure site cleanliness and serviceability. Adherence to safety and good housekeeping must be maintained at all times. The facility handover process will be carried at the end of each service.

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 Landscaping conditions and on ensuring that rostered maintenance work is indeed performed as and when required

Apart from the compliance to the defined ACSA M&E Procedures, a measure of ensuring quality of work will be adherence to the following (where applicable):

1. Occupational Health and Safety (Act 85 of 1993)
2. Environmental Conservation Act (Act 50 of 2003)
3. Civil Aviation Act (Act 13 of 2009)
4. Municipal bylaws and regulations
5. Standards and specification of ACSA
6. Standards and specifications of the supply authority
7. Applicable standards and codes of practices,
 - a. SANS 10142-1&2
 - b. IEC 61730-2 Photovoltaic (PV) module safety qualification – Part 2: Requirements for Testing.
 - c. IEC 62716 Photovoltaic (PV) modules – Ammonia corrosion testing
 - d. IEC 62446,
 - e. IEC 60364-6
 - f. ORHVS
 - g. OEM Manuals and Operating Procedures
 - h. BS
 - i. NRS

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4 Procurement

This type of contract caters for a priced contract with price list and reimbursable items – as required, as described under Option A of the NEC 3 Term Service contract.

Additionally, the *Contractor* will respect OEM warranties to ACSA at all times when procuring spare parts, products or 3rd party services. It will be the *Contractor's* sole responsibility to ensure that OEM warranty requirements are adhered to at all times.

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* will have to build relationships with the various key OEM's. The *Contractor* must adhere to all airport requirements when procuring equipment or spares.

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

No undefined (Price List) expenditure will be allowed to claim for by the *Contractor*. Where the need arises for such items - it must be clearly motivated for and approved by the *Service Manager*.

The *Contractor* is obliged to deliver or provide all necessary material and equipment to execute the works (e.g. measuring instruments and tools) and small items (e.g. lubricants and cleaning agents).

4.1 People

4.1.1 Minimum requirements of people employed

The *Contractor* is to provide the service with their own staff or by qualified subcontractors when agreed to by the *Service Manager*.

It is noted that the *Employer* do not list the formal qualifications and experience required under this contract. It will always remain the *Contractor's* responsibility to ensure that staff are suitably qualified and experienced for duties expected of them.

The *Employer* reserves the right to verify all qualifications and experience of personnel employed under this contract. Furthermore, ACSA reserves the right to order that personnel that are not adequately qualified, experienced or suited for this contract are removed from the site

The *Contractor* will be responsible for providing staff which are sufficiently skilled and qualified for successful execution of the works.

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).

All individuals that will be required to have access onto the airport's airside need to undergo the following training:

1. Airside Induction Training (AIT)
2. Airside Vehicle Operator Procedures (AVOP) (Category 2)
3. Airport SMS Induction (briefing)

All individuals that will be required to have access into the airport's electrical restricted areas need to undergo the following training:

1. ORHVS (Module 1-4 as a minimum)
2. First Aid Training
3. Fire Extinguisher Training

For all staff and senior personnel dedicated to this contract, the following must be submitted in detail:

- Full Names of staff to be involved with this contract.
- Proof of qualifications and work experience where applicable
- Staff must be in permanent employ of the company.
- Competent in category of work that he or she is required to perform.

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4.1.2 BBEE and preferencing scheme

In order to qualify for B-BBEE recognition, ACSA will only accept B-BBEE certificates from SANAS accredited verification agencies and IRBA approved auditors as proof of B-BBEE status.

4.2 Subcontracting

4.2.1 Preferred subcontractors

No part of this Contract may be subcontracted unless with written approval from the *Service Manager*. The *Service Manager* shall be under no obligation to grant such approval. Should any part of this contract be subcontracted the *Contractor* will be responsible for all Works (or failure to affect the Works) as if it was done so by the *Contractor*. Considerations for subcontracting will be entertained when specialist services need to be obtained from a particular supplier or group of suppliers in order to comply with operational standards. Specialist service providers that may be sub-contracted are defined below:

1. OEM of critical PV & MV equipment
2. Transformer manufacturer
3. MV Protection Specialist Services
4. Power Factor Correction Specialist

4.3 Plant and Materials

4.3.1 Specifications

The *Contractor* shall use only tools and test equipment relevant to the operation, repair and maintenance of the PV plant installation, including associated MV and LV infrastructure. All test equipment used shall be calibrated as per regulation to ensure accurate measurement results at all times. Proof of calibration certificates needs to be issued on request by the *Service Manager*. All tools used shall be safe and in good working conditions. All electrical tools shall be properly insulated to alleviate electrocution risk. All tools used needs to be inspected and recorded in the tool inspection sheet. The *Service Manager* reserves the right to have access to the maintenance records of the *Contractor's* plant and equipment, when requested.

Only materials with acceptable quality must be used as part of the services. Where an industry norm certification (SABS, expiry date, etc.) cannot be determined, then the *Service Manager* must be afforded the opportunity to inspect and authorise the items prior to it being delivered onto ACSA premises.

4.3.2 Correction of defects

The *Contractor* shall report any defects (equipment & material) experienced whilst performing the services. Any defective plant / equipment (unserviceable) or material (unacceptable quality) shall be removed immediately from ACSA's premises. The *Contractor* shall ensure that replacement (backup / leased / new) equipment and material is sourced immediately in order to comply to the contractual conditions of the services.

All defects and non-conformances must be corrected immediately. Constraints that can prevent this must be communicated to the *Service Manager* (or his delegated person) is listed below:

1. Airport operations that will be interrupted with a direct effect of revenue income. Hence the work must be scheduled for after operational hours.
2. Lack of spares or expertise. Hence the work will be scheduled to be completed after the procurement of the required spares or specialist services.

Should the identified defect have a negative influence on the safety of persons or critical equipment - then the *Contractor* must inform the *Service Manager* (or his delegated person) to activate ACSA's relevant internal emergency procedures in an effort to mitigate the risk as fast as practicably possible.

Any breakdown impacting on operations shall be attended-to until restored to good reliable condition. This implies that no breakdown may be left unattended or incomplete for the next day or shift.

The *Employer* will hold the *Contractor* liable for any costs incurred by any party as a result of negligence or unreasonable poor performance by the *Contractor* including excessive time taken to effect repairs.

4.3.3 Contractor's procurement of Plant and Materials

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The *Contractor* shall ensure that all plant and materials are procured from legitimate businesses with valid Tax clearance certificates. All associated invoices must be submitted with the monthly reports.

All applicable warranties from suppliers to be made out in favour of the *Employer* and not just to the *Contractor*. The *Contractor* will provide (and regularly update) a schedule of the *Contractor's* vendor data to the *Employer* for use outside of this contractual agreement.

The *Contractor* must provide original quotations (from the third party service providers / suppliers) for formal approval by the *Service Manager* prior to the procurement of these third-party items.

Required spares and services that falls outside of the Price List, must be submitted in the form of a Scope document to the ACSA electrical team - in order for it to be procured by way of the ACSA internal procurement policies and procedures.

4.3.4 Tests and inspections before delivery

The *Contractor* is to provide proof manufacturer certificate for spares procured during this contract. The certificate should contain the factory tests conducted and relevant statutory approval (accreditation) for the spare part purchase.

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5 Working on the Affected Property

5.1 Employer's site entry and security control, permits, and site regulations

Where applicable, the *Contractor* shall be required to adhere to the Airport site entry requirements i.e. when maintaining the PV plant associated infrastructure located at the electrical complex on airside - they will have the required permits and adhere to the airside regulations.

Permits

The *Contractor* shall not be compensated for costs relating to ACSA required permits, nor for labour/time spent in obtaining it. An allowance must be made in the Activity Schedule in this regard. The *Contractor* must ensure that he/she is, at all times, familiar with ACSA's safety and security requirements relating to permits in order for no work to be delayed as a result thereof. This will include the permit application process.

Note that (within reason) the *Contractor* will have no claim against ACSA in the event that a permit request is refused.

The following table is not all inclusive, but is provided for illustration purposes:

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
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.

5.2 People restrictions, hours of work, conduct and records

The *Contractor* will be required to complete a register for all the duties performed on the Airport. The *Contractor* shall be required to sign the Work Order issued for services rendered. This service will be conducted outside of the Airport's operational hours or afterhours.

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

The *Contractor* must keep detailed records of all people (including subcontractors) working on the affected property.

The working hours of the contractor must not influence the generation capacity of the PV plant. Therefore, the work needs to be scheduled accordingly, during airport operational hours if no effect and after operational hours when it will effect plant operations.

The *Contractor's* conduct must be at all times of a professional nature with effective courtesy and integrity.

5.3 Environmental controls, fauna & flora

All general environmental concerns and requirements is referred to the ACSA environmental policy defined in Section C1.5 above under PART C1: AGREEMENT AND CONTRACT DATA.

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5.4 Cooperating with and obtaining acceptance of Others

The *Contractor* will generally work in close relation to the ACSA electrical team. However, cognisance should be made to respect the operations and be courteous to the other departments (ARFF, AVSEC, Operations) on the airport.

The *Contractor* will liaise and accept notified (and adhoc) engagements with statutory authorities and inspection / audit teams (agencies).

The *Contractor* need to understand that the Airport may have more than one activities happening at the Airport and therefore shall be required to share the areas where they will be performing a service.

5.5 Records of Contractor's Equipment

The contractor is to keep record of equipment used on site. The record sheet should contain all the equipment relevant information i.e. The record will be checked by Aviation Security during both entry and exit to the Airside.

At the start of the contract period, the contractor will submit a detailed list (make, model, serial number etc.) of equipment and tools that will be taken and used on ACSA premises - for approval by the *Service Manager*. This list must be approved regularly as and when amendments to it, occur.

As part of the monthly report the contractor need to indicate in writing when extraordinary equipment (outside of the original equipment list referred to above) will / have been brought onto (or removed from) ACSA premises. If need be a special permission slip for this must be formulated to be signed by the *Service Manager* for this purpose.

The various approved lists must be at all times made available to the AVSEC department (including their contracted service provider) on request.

5.6 Site services and facilities

5.6.1 Provided by the Employer

The *Employer* will provide the contractor with access to the PV plant and the maintenance complex as and when required.

The *Contractor* and his/her staff will utilise the ablution facilities in the maintenance complex. No ablution facilities may be used in the terminal building.

The *Employer* will provide space for the *Contractor* to erect a site office and/or yard in the maintenance complex, should they wish to do so.

5.6.2 Provided by the Contractor

The contractor will provide necessary tools, equipment, Protective Clothing and all consumables required to conduct the service.

In the event of a site office/ yard, access control will be agreed between the *Service Manager* and the *Contractor* accordingly. Also in this event, the *Contractor* must make provision for ablution facilities as part of the site office establishment. Any site office / yard establishment requirements will be for the *Contractor's* own cost. The site office / yard must be de-commissioned at the end of the service period and the surface must be rehabilitated to its surrounding area accordingly.

5.7 Control of noise, dust, water and waste

The *Contractor* shall be required to keep the noise and dust at low levels and as well as conserve the scarce resources such as energy & water. Waste shall be disposed at the registered waste sites according to the Municipal By-Laws.

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5.8 Hook ups to existing works

In the event that the *Contractor* wish to establish a site camp and/or yard, the required services (electrical; sewer; water) will be billed for on a monthly basis.

5.9 Tests and inspections

5.9.1 Description of tests and inspections

The contractor shall ensure that all required tests and inspections are performed in order to comply and produce documented results to the **optimum energy yield** and the **performance ratio** of the PV plant which can be found in Annex I of C4 (Site Information).

The Contractor will complete regular inspections which will monitor the actual conditions of the *Affected Property*., based on the relevant design.

All the additional inspections will be developed by the *Contractor* and Approved by the *Service Manager*. Amongst others still to be developed, the following inspections will be completed:

1. Monthly PM's.
2. 3-Monthly PM's
3. 6-Monthly PM's
4. Yearly PM's
5. Other

6 List of drawings

6.1 Drawings issued by the Employer

None.

PART C4: SITE INFORMATION

ANNEXES to C4

Title	Annex number
Foot Print of the <i>Affected Property</i>	Annex A
Scheduled Maintenance Work as priced in Price List in C2.2	Annex B
SLA Monthly Service Report Template	Annex C

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ANNEX A: Footprint of the *Affected Property*

The Solar Plant is located on the airside of King Phalo airport with the following details:

GPS Location 1A (fenced area)	F1	33° 1'59.23"S	27°49'57.90"E
	F2	33° 1'59.31"S	27°50'6.25"E
	F3	33° 2'1.02"S	27°50'6.22"E
	F6	33° 2'0.94"S	27°49'57.88"E

The solar plant is fully fenced, have a perimeter length of approximately 539 metres, and an area size of approximately 11 420 m². This includes all infrastructure which was procured and commissioned as part of the Solar Plant project installation. The footprint and location is shown in the figure below.



The Solar Plant is located on the airside of King Phalo airport with the following details

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ANNEX B: Planned Solar Plant Maintenance

Solar Plant Maintenance Activities			
No	Activity	Details	Frequency
1	Module Cleaning	The frequency of module cleaning will be conducted to rid of prevalence of dust, bird droppings or rain drop forming.	Monthly
		Module cleaning must consider environmental& human factors (like, autumn fall debris, soiling from roads & agricultural activities).	
		It is contractor's responsibility to source the required water for cleaning and environmental control within the site	
		Ad hoc cleaning shall be scheduled as necessary, specifically when the PV plant efficiency falls below expectation.	
		Optimum frequency of cleaning can be determined by assessing the cost and benefits of conducting the procedure. The benefit of cleaning shall be seen in an improved performance ratio due to lower soiling loss and an increase in electricity generation.	
2	Deep Modular cleaning	Cleaning of the panels utilising approved chemicals to improve conducting and protection of the modules	3 Monthly
3	Module Connection Integrity	Check connections between modules within each string periodically.	3 Monthly
		Measure the string current and string impedance and record	
		String connection integrity shall additionally be monitored with the installed string level monitoring system and recorded	
4	Junction / String Combiner Box	Check all Junction / String combiner boxes for water ingress, dirt & dust accumulation to prevent corrosion and or short circuits inside the boxes.	3 Monthly
		Check the integrity of all the connections in the boxes and loose connections	
		Check the integrity of all the Circuit Breakers, Fuses in the boxes, loose connections, short circuits and open circuits	
5	Hot Spots	Thermography scan shall be performed across the entire PV plant to detect potential faults.	Annually
		Thermography shall be conducted by a trained specialist using a thermographic / infrared camera. A detailed report with pictures of all string connections, junction boxes, inverters, associated MV infrastructure & associated LV infrastructure shall be compiled accordingly.	
		The report will identify weak and loose connections plus hot spots, which need to be corrected immediately.	

Solar Plant Maintenance Activities			
No	Activity	Details	Frequency

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6	Inverter Servicing	Conduct the inverter servicing and cleaning as per the OEM	3 Monthly
		Minimum servicing specifications will include Visual inspections; Cleaning / Replacing of cooling fans; Removal of dust from electronic components; tightening of any loose connections; Additional analysis and diagnostics recommended by the manufacturer.	
7	Structural Integrity	Check periodically the module mounting assembly, cable conduits & related structures for mechanical integrity and signs of corrosion.	6 Monthly
		Inspect support structure foundations for evidence of erosion from <i>inter alia</i> water run-off	
8	Balance of Plant	Service all other PV plant auxiliary and ancillary systems which include monitoring and security systems; auxiliary power supplies; communication systems; etcetera.	3 Monthly
		Inspect and verify signal strength and continuation of connection of the communication systems within the PV plant as well as to all other external systems.	
9	Vegetation Control	Vegetation control and ground keeping shall be conducted to clear any obstruction to the PV generation. Vegetation inspections and maintenance need to be conducted monthly by grass cutting and shrub/trees removal within 10 metres from the perimeter of the plant inwards	Monthly
		Ground keeping activities need to be performed to reduce the risk of soiling onto the modules by way of leaves, pollen or dust.	
10	General	Generate Monthly reports on system performance	Monthly
		Periodic load verification and load test methodologies shall be prepared according to requirements defined in IEC 62446, IEC603646 and according to the current best commissioning practice.	6 Monthly
		Continuous performance monitoring and error reporting of the system to be conducted monthly	Monthly
		Replacing of spare parts as and when required	Ad hoc
		Management of equipment warranties, interfacing with equipment provider and managing logistics in replacing equipment	Ad hoc

Solar Plant Maintenance Activities			
No	Activity	Details	Frequency

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11	Performance Monitoring, Evaluation & Optimisation	To optimise system performance, there is a need to ensure that the plant components function efficiently throughout the lifetime of the plant. Continuous monitoring of PV systems is essential to maximise the availability and yield of the system. The SCADA system can monitor the real-time efficiency and continuously compare it with the theoretical efficiency to assess if the system is operating optimally. This information shall be used by the contractor to establish the general condition of the system and schedule urgent repair or maintenance activities such as cleaning.	Monthly
12	Training	Provide the training to ACSA staff on Ad hoc basis to improve system knowledge and familiarisation	Ad hoc

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Solar Plant Maintenance Activities			
No	Activity	Details	Frequency
13	Inventory Management and Spares Supply	Contractor to ensure the availability of spares to facilitate rapid response and PV plant serviceability.	Ad hoc

Unscheduled Maintenance	
Unscheduled Maintenance is carried out in response to failures which shall be responded to on-site within 2 hours of when the call is logged. Where possible the fault can be rectified remotely.	Servile Level Agreement
Documented detailed diagnostics must be given to ACSA by latest close of business the following day.	Servile Level Agreement
Repair time of the plant shall be within 48 hours as a worst-case scenario. Only under special conditions and on agreement with ACSA can the defect be isolated and repaired beyond the 1-day time frame.	Servile Level Agreement

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ANNEX D: LOW SERVICE TABLE

Failure to meet the following Service Level	Low Service Damage against the Activity	Low Service Damage Percentage of the corresponding activity
Failure to maintain required cleanliness levels of PV panels (soiling losses above agreed threshold)	Annual PM	0,05%
Minimum performance levels of string monitoring systems (including data accuracy and reporting uptime)	Annual PM	0,05%
Minimum photovoltaic (PV) module efficiency output (as per manufacturer specification and site baseline)	Annual PM	0,05%
Minimum inverter availability and performance levels during operational periods	Annual PM	0,05%
Failure to maintain SCADA system functionality and data availability	Monthly Performance	0,05%
Minimum Primary cable insulation impedance to be maintained during any operational period	Annual PM	0,05%
Failure to maintain proper earthing and grounding system resistance levels	Annual PM	0,05%
Minimum guarantee for all preventive maintenance work	Per corresponding PM	100% or redo the PM
Minimum guarantee for all Corrective/Reactive/Repair Maintenance	Per corresponding CM	100% or redo the CM
Non-compliance with required safety certifications/authorizations for personnel working on HV/MV/LV solar plant systems	Contract	Suspension until the qualification is achieved, any work required will be billed against the service provider
Preform the schedule PM on time	Per corresponding PM	0,05%
Fault response time	Per corresponding CM/ Task Order	0,05%

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Incomplete activity	Per corresponding activity	0,05%
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ANNEX C: SLA Monthly Service Report Template

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AIRPORTS COMPANY SOUTH AFRICA

Airports Company South Africa SOC Ltd Reg No 1993/004149/30 VAT No 4930138393

Board of Directors: DS Macozoma (Chairman), R Morar (Deputy Chairman), *BA Maseko (Chief Executive Officer),
 *MM Manyama (Chief Financial Officer), MJ Lamola, B Luthuli, C Mabude, MK Matlou, MS Mabela, S Simelane,
 D Botha, MK Moroka, N Kekana (Company Secretary)

* Executive Directors

Contract No :
To : **ACSA (Service Manager)**
From : **Service Provider**
Subject : **SLA Monthly Report – Electrical Maintenance**
Reporting Period : **May 2017**

1. Executive Summary / Introduction

A short introduction needs to be given regarding the activities.

2. BACKGROUND

- *Why the work needs to be done*
- *Why this specific areas was identified with reference to a bigger master plan / previous month's roll-over / breakdown to be repaired / maintenance cycle / etc.!*

3. DETAILS

- *Insert the what, why, when and where of the specific activities / non-compliances / Exactly describe the different steps / actions that was completed*
- *Identify special faultfinding methods where necessary*
- *Identify indicators to observe – e.g. water erosion, rain patterns, mole activity, etcetera.....*
- *Refer to attachments (service sheets, other reports , etc.*
- *Include times where necessary*
- *Include drawings where necessary*
- *Include pictures where applicable*
- *Include Tables where necessary*

4. SOLUTION

- *Where you able to complete all activities which was planned – if not, why*
- *What is your specialist diagnosis of the system, why*
- *Was the problem fixed (if any) temporarily / permanent*
- *Note changes to documents and drawings, where applicable*
- *Specify whether recourses was used other than the normal shift hours (overtime/ contractors / etc.)*

5. RECOMMENDATION

- *This section will close out the document*

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- *Is future upgrade / permanent work still required*
- *Is a change in the works program required and why?*

6. List of Attachments

Add the list of all attachments and annexures to the reports. As examples the following original documentation must be attached – in order to supplement the comments made in the other sections of the report above:

- *Procurement documentation*
 - *Quotations*
 - *Invoices*
 - *Purchase Orders*
 - *Delivery Notes*
 - *Statements*
- *PM's & WO's*
- *Safety Audits*
- *Amended drawings / Procedures*
- *Toolbox talks*
- *Pictures*
- *Accident / Incident Investigation Reports*
- *Breakdown / Failure Reports*
- *Daily Reports*
- *Training certificates / attendance forms*
- *Meeting minutes*
- *Time and Attendance Registers*
- *Etc.*

Compiled by: Your name

Signature: _____

Date: _____