

NEC3 Professional Services Contract (PSC3)

**Contract between Airports Company South Africa
VAT Reg No. 493 013 8393**

and

**for Professional Consulting Service on Medium Voltage
Network Optimisation at O.R. Tambo International**

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Project No. 4913

PART C1: AGREEMENTS & CONTRACT DATA

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C1.1 Form of Offer & Acceptance

Offer

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

Professional Consulting Service on Medium Voltage Network Optimisation at O.R. Tambo International

The tenderer, identified in the Offer signature block, has

<i>either</i>	examined the documents listed in the Tender Data and addenda thereto as listed in the Returnable Schedules, and by submitting this Offer has accepted the Conditions of Tender.
<i>or</i>	examined the draft contract as listed in the Acceptance section and agreed to provide this Offer.

By the representative of the tenderer, deemed to be duly authorised, signing this part of this Form of Offer and Acceptance the tenderer offers to perform all of the obligations and liabilities of the *Consultant* under the contract including compliance with all its terms and conditions according to their true intent and meaning for an amount to be determined in accordance with the *conditions of contract* identified in the Contract Data.

The offered total of the Prices exclusive of VAT is	R
Value Added Tax @ 15% is	R
The offered total of the Prices inclusive of VAT is	R
(in words)	

This Offer may be accepted by the Employer by signing the Acceptance part of this Form of Offer and Acceptance and returning one copy of this document including the Schedule of Deviations (if any) to the tenderer before the end of the period of validity stated in the Tender Data, or other period as agreed, whereupon the tenderer becomes the party named as the *Consultant* in the *conditions of contract* identified in the Contract Data.

Signature(s)

Name(s)

Capacity

**For the
tenderer:**

(Insert name and address of organisation)

Name &
signature of
witness

Date

Acceptance

By signing this part of this Form of Offer and Acceptance, the Employer identified below accepts the tenderer's Offer. In consideration thereof, the Employer shall pay the Consultant the amount due in accordance with the *conditions of contract* identified in the Contract Data. Acceptance of the tenderer's Offer shall form an agreement between the Employer and the tenderer upon the terms and conditions contained in this agreement and in the contract that is the subject of this agreement.

The terms of the contract, are contained in:

Part C1	Agreements and Contract Data, (which includes this Form of Offer and Acceptance)
Part C2	Pricing Data
Part C3	Scope of Work: The Scope

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

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

The tenderer shall within two weeks of receiving a completed copy of this agreement, including the Schedule of Deviations (if any), contact the Employer's agent (whose details are given in the Contract Data) to arrange the delivery of any securities, bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the *conditions of contract* identified in the Contract Data at, or just after, the date this agreement comes into effect. 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 *Consultant*) within five working days of the date of such receipt notifies the Employer in writing of any reason why he cannot accept the contents of this agreement, this agreement shall constitute a binding contract between the Parties.

Signature(s)

Name(s)

Capacity

**for the
Employer**

(Insert name and address of organisation)

Name &
signature of
witness

Date

Note: If a tenderer wishes to submit alternative tenders, use another copy of this Form of Offer and Acceptance.

Schedule of Deviations

Note:

1. To be completed by the Employer prior to award of contract. This part of the Offer & Acceptance would not be required if the contract has been developed by negotiation between the Parties and is not the result of a process of competitive tendering.
2. The extent of deviations from the tender documents issued by the Employer prior to the tender closing date is limited to those permitted in terms of the Conditions of Tender.
3. A tenderer's covering letter must not be included in the final contract document. Should any matter in such letter, which constitutes a deviation as aforesaid be the subject of agreement reached during the process of Offer and Acceptance, the outcome of such agreement shall be recorded here and the final draft of the contract documents shall be revised to incorporate the effect of it.

No.	Subject	Details
1		
2		
3		
4		
5		
6		
7		

By the duly authorised representatives signing this Schedule of Deviations below, the Employer and the tenderer agree to and accept this Schedule of Deviations as the only deviations from and amendments to the documents listed in the Tender Data and any addenda thereto 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 Form shall have any meaning or effect in the contract between the parties arising from this Agreement.

For the tenderer:

For the Employer

Signature

Name

Capacity

On behalf
of

(Insert name and address of organisation)

(Insert name and address of organisation)

Name &
signature
of witness

Date

C1.2 PSC3 Contract Data

Part one - Data provided by the *Employer*

Completion of the data in full, according to the Options chosen, is essential to create a complete contract.

Clause	Statement	Data
1	General	
	The <i>conditions of contract</i> are the core clauses and the clauses for main Option	
		A: Priced contract with activity schedule
	dispute resolution Option	W1: Dispute resolution procedure
	and secondary Options	
		X1: Price adjustment for inflation
		X2: Changes in the law
		X7: Delay damages
		X9: Transfer of rights
		X10: <i>Employer's Agent</i>
		X11: Termination by the <i>Employer</i>
		X18: Limitation of liability
	of the NEC3 Professional Services Contract June 2005 ¹ (with amendments June 2006).	
10.1	The <i>Employer</i> is (Name):	Airports Company South Africa VAT Reg No. 493 013 8393, a juristic person incorporated in terms of the company laws of the Republic of South Africa
	Address	Registered office at O.R.TAMBO INTERNATIONAL AIRPORT
	Tel No.	011 921 6911
	Fax No.	011 390 1012
11.2(9)	The <i>services</i> are	Professional Engineering Consulting Services
11.2(10)	The following matters will be included in the Risk Register	Engineering Design delays Contractor Supervision Ordering of Long lead items Consultant documents delay Outages and power shutdowns
11.2(11)	The Scope is in	Part 3: Scope of Work

¹ Available from Engineering Contract Strategies Tel 011 803 3008 Fax 011 803 3009 or www.ecs.co.za

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	1 weeks
13.6	The <i>period for retention</i> is	1 years following Completion or earlier termination.

2 The Parties' main responsibilities

25.2	The <i>Employer</i> provides access to the following persons, places and things	access to	access date
		1 Site and Substations	When required
		2 Project Information	When required
		3 ACSA M&E Resource	When required

3 Time

31.2	The <i>starting date</i> is.	Appointment date		
11.2(3)	The <i>completion date</i> for the whole of the services is.			
11.2(6)	The <i>key dates</i> and the <i>conditions</i> to be met are:	<i>Condition to be met</i>		<i>key date</i>
		1	Contract Acceptance	
		2	Design Review	
		3	Tender Document Completion	
		4	Compulsory Site Meeting	
		5	Tender Closing Date	
		6	Kick off Meeting	
		7	Place orders long lead	
		8	Construction Documents	
		9	Installation Schedule	
31.1	The <i>Consultant</i> is to submit a first programme for acceptance within	3 weeks of the Contract Date.		
32.2	The <i>Consultant</i> submits revised programmes at intervals no longer than	2 weeks.		

4 Quality

40.2	The quality policy statement and quality plan are provided within	3 weeks of the Contract Date.
42.2	The <i>defects date</i> is	1 weeks after Completion of the whole of the services.

5 Payment

50.1	The <i>assessment interval</i> is	Per the time lines or when required	
50.3	The <i>expenses</i> stated by the <i>Employer</i> are	Item	Amount
		Consulting fees (fixed)	R
		Consulting fees Retainer	10%
51.1	The period within which payments are made is	30 calendar days.	
51.2	The <i>currency of this contract</i> is the	South African Rand	
51.5	The <i>interest rate</i> is	N/A	
6	Compensation events	Refer to 60.1	
7	Rights to material	Refer to 70.1 and 71.1	
8	Indemnity, insurance and liability		
81.1	The amounts of insurance and the periods for which the <i>Consultant</i> maintains insurance are		
	Event	Cover	Period following Completion of the whole of the services or earlier termination
	failure of the <i>Consultant</i> to use the skill and care normally used by professionals providing services similar to the <i>services</i>	R 7,000,000.00 in respect of each claim, without limit to the number of claims	May 2024 – Feb 2029
	death of or bodily injury to a person (not an employee of the <i>Consultant</i>) or loss of or damage to property resulting from an action or failure to take action by the <i>Consultant</i> .	R 5,000,000.00 in respect of each claim, without limit to the number of claims.	May 2024 – Feb 2029
	death of or bodily injury to employees of the <i>Consultant</i> arising out of and in the course of their employment in connection with this contract	R 7,000,000.00 in respect of each claim, without limit to the number of claims	As <i>Consultant</i> deems necessary
81.1	The <i>Employer</i> provides the following insurances	Contract Work, SASRIA, Public Liability and Project Professional Indemnity Insurances.	
82.1	The <i>Consultant's</i> total liability to the <i>Employer</i> for all matters arising under or in connection with this contract, other than the excluded matters, is limited to	R7,000,000.00	
	The <i>Consultant</i> provides these additional insurances.		
	1 Insurance against:	Whatever the <i>Consultant</i> deems necessary including cover provided for payment of deductibles	
9	Termination	Refer to clause 90	

Data for main Option clause		
A	Priced contract with activity schedule	
21.3	The <i>Consultant</i> prepares forecasts of the total of the <i>expenses</i> at intervals of no longer than	4 weeks.
Data for Option W1		
W1.1	The <i>Adjudicator</i> is	the person selected from the ICE-SA Division (or its successor body) of the South African Institution of Civil Engineering Panel of Adjudicators by the Party intending to refer a dispute to him. (see www.ice-sa.org.za)
	Address	[•]
	Tel No.	[•]
	Fax No.	[•]
	e-mail	[•]
W1.2(3)	The <i>adjudicator nominating body</i> is:	the Chairman of the ICE-SA Division (or its successor body) of the South African Institution of Civil Engineering. (See www.ice-sa.org.za).
W1.4(2)	The <i>tribunal</i> is:	Arbitration
W1.4(5)	The <i>arbitration procedure</i> is	the latest edition of Rules for the Conduct of Arbitrations published by The Association of Arbitrators (Southern Africa) or its successor body.
	The place where arbitration is to be held is	Johannesburg, South Africa
	The person or organisation who will choose an arbitrator	
	- if the Parties cannot agree a choice or - if the <i>arbitration procedure</i> does not state who selects an arbitrator, is	the Chairman for the time being or his nominee of the Association of Arbitrators (Southern Africa) or its successor body.
Data for secondary Option clauses		
X1	Price adjustment for inflation	
X1.1	The index is	8.8% PPI or CPI 6.6% (As per Reserve Bank Index of June 2014)
	The staff rates are {state whether "Fixed at the Contract Date and are not variable with changes in salary paid to individuals" or "Variable with changes in salary paid to individuals"}	N/A
X2	Changes in the law	
X2.1	The law of the project is	South African law.

X7	Delay damages	
X7.1	Delay damages for late Completion of the whole of the services are	To be agreed between parties (Employer & Consultant)
X9	Transfer of rights	Refer to clause 7
X10	The Employer's Agent	
X10.1	The Employer's Agent is	
	Name:	Mr. Khaya Nyikana
	Address	O.R. Tambo International Airport
	The authority of the Employer's Agent is	Defined in the Contract Data
X11	Termination by the Employer	The Employer may terminate the Consultant's Obligation to Provide the Services as per clause 9 on the core clauses.
X18	Limitation of liability	
X18.1	The Consultant's liability to the Employer for indirect or consequential loss is limited to:	Professional Indemnity Cover
X18.2	The Consultant's liability to the Employer for Defects that are not found until after the defects date is limited to:	Equivalent amount to the defect contractor
X18.3	The end of liability date is	1 years after Completion of the whole of the services

C1.2 Contract Data

Part two - Data provided by the *Consultant*

Completion of the data in full, according to Options chosen, is essential to create a complete contract.

Clause	Statement	Data
10.1	The <i>Consultant</i> is (Name): Address Tel No. Fax No.	
22.1	The <i>Consultant's</i> key persons are: 1 Name: Job: Responsibilities: Qualifications: Experience: 2 Name: Job: Responsibilities: Qualifications: Experience:	
Only if required		CV's (and further <i>key persons</i> data including CVs) are appended to Tender Schedule entitled .
11.2(3)	The <i>completion date</i> for the whole of the services is	
11.2(10)	The following matters will be included in the Risk Register	• Engineering Design delays • Contractor Supervision • Ordering of Long lead items • Consultant documents delay • Outages and power shutdowns
11.2(13)	The <i>staff rates</i> are:	name/designation rate
	Either complete here or cross refer to a schedule in Part C2.2	
25.2	The <i>Employer</i> provides access to the following persons, places, and things	access to 1 As per Part C1.2a sub clause 25.2
		access date

31.1	The programme identified in the Contract Data is	Refer to C1.2A	
50.3	The <i>expenses</i> stated by the <i>Consultant</i> are	item	amount
A	Priced contract with activity schedule		
11.2(14)	The <i>activity schedule</i> is in	Refer to C2.2	
11.2(18)	The tendered total of the Prices is	R (in figures)	

C1.3 Forms of Securities

PROFESSIONAL INDEMNITY

PART 2: PRICING DATA
PSC3 Option A

Document reference	Title	No of pages
C2.1	Pricing assumptions: Option A	2
C2.2	The <i>activity schedule</i>	2

C2.1 Pricing assumptions: Option A

How work is priced and assessed for payment

Clause 11 in NEC3 Professional Services Contract, June 2005 (PSC3) Option A states:

Identified and defined terms	11	
	11.2	(14) The Activity Schedule is the <i>activity schedule</i> unless later changed in accordance with this contract.
		(15) The Price for Services Provided to Date is the total of the Prices for the activities which have been completed. A completed activity is one which is without Defects which would delay immediately following work.
		(18) The Prices are the lump sum prices for each of the activities on the Activity Schedule unless later changed in accordance with this contract.

This confirms that Option A is a lump sum form of contract where the work is broken down into activities, each of which is priced by the tendering consultant as a lump sum. Only completed activities are assessed for payment at each assessment date; no part payment is made if the activity is not completed by the assessment date.

Function of the Activity Schedule

Clause 53.1 in Option A states: "Information in the Activity Schedule is not Scope." This confirms that instructions to do work or how it is to be done are not included in the Activity Schedule but in the Scope. This is further confirmed by Clause 21.1 which states, "The *Consultant* Provides the Services in accordance with the Scope". Hence the *Consultant* does **not** Provide the Services in accordance with the Activity Schedule. The Activity Schedule is only a pricing document.

Link to the programme

Clause 31.4 states that "The *Consultant* provides information which shows how each activity on the Activity Schedule relates to the operations on each programme which he submits for acceptance". Hence when compiling the *activity schedule*, the tendering consultant needs to show each activity on the programme he submits with his tender.

Preparing the activity schedule

The tendering consultant prepares the *activity schedule* and should study the PSC3 Guidance Notes pages 2 and 24 before doing so. The *Employer* may have instructed the tendering consultant to include particular activities which he has specified and requires the *Consultant* to identify them in his *activity schedule*.

1 Generally it is the *Consultant* who prepares the Activity Schedule as part of his tender by breaking down the work described within the Scope into suitable activities which can be well defined, priced as a lump sum and shown on the programme. The *Employer*, in his Conditions of Tender or in a Tender Schedule, may have listed some items that he requires the *Consultant* to include in his *activity schedule* and be priced accordingly.

2 The Prices are defined in clause 11.2(18) as the lump sum for each activity in the activity schedule and the Price for Services Provided to Date (PSPD) (the amount due to the *Consultant*) is defined in

clause 11.2(15) as the total of the Prices for each activity that has been completed. Hence activities in the activity schedule should be structured so as to provide an acceptable monthly cash flow as they are only assessed for payment on the assessment date if they have been completed.

3 As the *Consultant* has an obligation to correct Defects (core clause 41) the lump sum Prices must also include for the correction of Defects except if the Defect is one for which the *Consultant* is not liable which is compensation event 60.1(12).

4 If the *Consultant* has decided not to identify a particular activity, the cost to the *Consultant* of doing the work must be included in, or spread across, the other Prices in order to fulfil the obligation to complete the services for the tendered total of the Prices.

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

6 Hence the Prices tendered by the *Consultant* in the *activity schedule* are inclusive of everything necessary and incidental to Providing the Services in accordance with the Scope, as it was at the time of tender, as well as correct any Defects except those for which he is not liable.

7 However, the *Consultant* does not have to allow in his Prices for matters that may arise as a result of a compensation event.

Expenses

Expenses are not included in the activity schedule items and are assessed separately at each assessment date.

Expenses associated with employing a staff member in Providing the Services are listed separately either by the *Employer* in Contract Data provided by the *Employer* or by the *Consultant* in Contract Data provided by the *Consultant*. As only the *expenses* listed may be claimed by the *Consultant*, all other cost to the *Consultant* associated with Providing the Services must be included within the activity schedule or *staff rates*.

Rate adjustment for inflation of *expenses* is explained on page 13 of the Guidance Notes.

Staff rates

When a compensation event occurs changes to the affected Activity Schedule item or new priced items in the Activity Schedule are assessed as the actual Time Charge for work already done and the forecast Time Charge for work not yet done. (See clause 63.1 and 63.14 in Option A)

The Time Charge is the sum of the products of each of the *staff rates* multiplied by the total staff time appropriate to that rate properly spent on work in this contract. (Clause 11.2(13))

Tendering consultants are advised to consult the NEC3 Professional Services Contract (June 2005) Guidance Notes and Flow Charts page 28 before entering *staff rates* into Contract Data, or in C2.2 below.

This is because *staff rates* can be established in one of three ways:

- rates for named staff,
- rates for categories of staff or
- rates related to salaries paid to staff.

Rate adjustment for inflation, if necessary, can be based either on actual salary adjustments or by using Option X1: Price adjustment for inflation. See pages 13, 14 and 28 of the Guidance Notes.

C2.2 the *activity schedule*

Use this page as a cover page to the *Consultant's activity schedule* or include here in this format:

2.2.1 Engineering Management Services

Professional Engineering Management Services Fee Schedule		
Engineering Management Services	Estimated Construction Value	R 68 000 000.00
	Total Offered Fees (Excl. Vat)	
	Offered Percentage % in relation to Estimated Construction Value	
Fees as per ECSA Act No 46 of 2000 – March 2021	% of basic fee for each stage	Offered Fee (Excl. VAT)
PHASE 1		
ECSA Stage 1 – Inception	5%	R
ECSA Stage 2 - Conception and Viability	20%	R
ECSA Stage 3 - Design Development	30%	R
SUB TOTAL PHASE 1		R
PHASE 2		
ECSA Stage 4 - Document & Procurement	14%	R
ECSA Stage 5 - Contract administration and Inspection	25%	R
ECSA Stage 6 – Close-out	5%	R
SUB TOTAL PHASE 2		R
TOTAL PHASE 1 & 2		R
TOTAL OFFERED PROFESSIONAL FEE (EXCL VAT)		R

2.2.2 Time-Based Engineering Services

PROVISION OF TIME-BASED ENGINEERING SERVICES				
Provide time-based engineering services on the instruction from the Employer in respect of services that fall beyond the scope of normal services/engineering management services as described in the Scope of Work				
Activity Description	Unit	Qty	Rate Amount	Amount
Category A Staff (Expert)	hr	100	R	R
Category B Staff (Principal)	hr	100	R	R
Category C (Professional)	hr	100	R	R
Category D (Technical)	hr	100	R	R
TOTAL OF PROVISION OF TIME-BASED SERVICES FEES				

Item	Description	Unit	Rate Amount Amount	
			R	C
1	Category A Staff (Expert)	Hour		
2	Category B Staff (Principal)	Hour		
3	Category C (Professional)	Hour		
4	Category D (Technical)	Hour		

SUMMARY OF PRICING SCHEDULE	
TOTAL OFFERED PROFESSIONAL FEES FOR NORMAL ENGINEERING SERVICES	
PROFESSIONAL ENGINEERING SERVICES	TOTAL PROFESSIONAL FEES
NORMAL ENGINEERING SERVICES	
1. Professional Electrical Engineering Services	R
2. Time-Base Fees	R
3. SUB-TOTAL 1 – NORMAL ENGINEERING SERVICES	R
4. Disbursements (10% of Sub-Total 1)	R
5. TOTAL OFFERED FEE (EXCL. VAT) INCLUDING DISBURSEMENTS EXPENSE – NORMAL ENGINEERING SERVICES)	R
6. Contingency (15% of Sub-Total Offered Fee)	R
7. ADD 15% VAT	R
8. TOTAL OFFERED FEE (INCL. VAT) - NORMAL ENGINEERING SERVICES (INCLUDING ALL THE ABOVE COST)	R

I, the undersigned, do hereby declare that the above is a properly priced Activity Schedule forming part of this Contract Document upon which my/our tender for Tender: **THE APPOINTMENT OF PROFESSIONAL BUILT ENVIRONMENT CONSULTANTS FOR THE MEDIUM VOLTAGE OPTIMISATION PROJECT FOR 60 MONTHS AT O.R. TAMBO INTERNATIONAL AIRPORT**. I/we warrant that no amendments have been made to it from the original, other than amendments issued in any Addenda of this Tender.

NB: BIDDERS MUST COMPLETE THE FORM OF OFFER IN FULL AND SIGN. THE FORM OF OFFER IS CONTAINED IN THE CIDB CONTRACT. SEE PSC DOCUMENT.

SIGNED ON BEHALF OF THE TENDERER:

PART 3: SCOPE OF WORK

Document reference	Title	No of pages
C3.1	This cover page <i>Consultant's Scope</i>	6
	Total number of pages	

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C3.1: CONSULTANT'S SCOPE

Description of the *services*

Executive overview

Terminal Substations Optimization: Combining of smaller substations, upgrading old and unsafe switchgear, reducing interconnecting MV cabling and introducing substation automation.

- Incorporate smaller loads into bigger Substations.
- Introduce bus-sections and
- Increase equipment availability.
- Reduce downtime and interference with Operations.
- Optimal floor space utilization.
- Use better locations for substations.
- Replace deteriorated switchgear.
- Introduce Substation Automation

Specification and description of the *services*

Scope of work

Scope of this project entail and not limited to the following:

Full engineering consultancy service which includes design, documentation with bills of quantities, site supervision and monitoring, quality control, cost control, commissioning tests & handover documentation.

•

- Produce detailed design with all necessary compliance to standard of required installation.
- Power System Studies (Load flow, short circuit, protection coordination, arc flash, transient stabilities, etc)
- Electrical Network **rationalization** and reconfiguration
- Enablement works for temporary power supply.
- Switchgear Replacement (IEC 62271-200)
- Installation and commissioning
- Protection settings revisioning and updating.
- Water proofing in substations
- HVAC revamping in substations
- Substation automation (compliance to IEC 61580)
- Segregation of control room and the power room
- Introduction of emergency escape doors
- Review and confirm the electrical design.
- Procure all electrical equipment required for the successful electrical installation as defined by the electrical drawings and specifications.
- Submit shop drawings to the ACSA engineer for approval prior to commencement of equipment procurement, for all distribution kiosks and crown assemblies.

- Transport all equipment and materials to site.
- Provide temporary electrical, water and ablution facilities required by the electrical contractor, unless agreed otherwise with the Employer.
- Erect temporary hoarding to separate construction and installation areas from public areas.
- Provide all signage as may be required in terms of the OHS Act.
- Install new electrical equipment and materials as per scope of works, specifications, and drawings.
- Commission the electrical installation.
- Complete acceptance test procedures and commissioning sheets for each individual piece of equipment installed under this contract (to be reviewed and approved by the ACSA Engineer).
- Conduct acceptance tests (to be witnessed by the ACSA Engineer).
- Issue a Certificate of Compliance (CoC).
- Submit handover and as-built documentation as prescribed in the Client Requirements and specifications below.
- Assess the current SCADA and IMC monitoring system and provide reports on recommendation.
- Assess MV cable **integrity** for the entire ORTIA network.
- Switching station feasibility studies, this includes optioneering backup power supplies, alternative power sources, LDES, BESS, tier in from Tri-Generation, etc.
- Power quality improvement studies
- The design scope includes all precinct Terminal, Cargo, and Airside.
- Tier in design for future projects such as Midfield Cargo, Tri-Generation, etc.
- Engineering design for UPS supply for essential loads in Substation 1,2,5,9, 12 and 13.
- Engineering design for reconfiguration of Substation 14 and 11.
- Engineering design for reconfiguration of Substation 3 and 1.
- Engineering design for reconfiguration of Substation 8 and 15.
- Engineering design for reconfiguration of Substation 6 and 7.

The following is the scope of what will be required of the consultant.

Item	Service Description	Qty
Stage 1	Consultancy during the “inception phase” • Assist in developing a clear project brief. • Advise on the rights, constraints, consents, and approvals. • Define services and scope of work required (Draft scope of work has been as above on item 2.1). • Provide necessary information within the agreed scope of the project. • Advise on criteria that could influence the project life cycle. • Deliverables ○ Agreed services and scope of work. ○ Signed agreement. ○ Report on project, site, and functional requirements. ○ Schedule of required surveys, tests, analyse. Site and other investigations. ○ Schedule of consents and approvals. ○ Record of all meetings. ○ Project initiation programme.	
Stage 2	Consultancy during the “Concept and Viability” • Prepare initial concept design and related documentation. • Advise ACSA ORTIA regarding further surveys, analyses, measurements, and tests. • Coordinate design interfaces with other disciplines. • Establish access, utilities, services, and connections required for design. • Provide cost estimates and comment on life cycle	

	costs as required. • Liaise and cooperate with ACSA Project manager and provide him with necessary information and any other consultant involved. • Deliverables ○ Concept design ▪ Design development drawings. ▪ Outlines specifications ▪ Local and other authority submission drawings, submissions and reports ▪ Detailed estimate of construction costs	
Stage 3	Consultancy during the “Detail Design” • Prepare design development drawings. • Prepare specifications. • Exercise cost control. • Deliverables ○ Design developments drawings. ○ Outline specifications. ○ Local and other authority submission drawings, submissions, and reports. ○ Detailed estimates of construction costs.	
Stage 4	Consultancy during the “Documentation and Procurement” stage of the project • Prepare specifications. ○ Electrical installation ○ MV Switchgear and accessories ○ MV Cables ○ Protection scheme philosophy ○ Power quality ○ Backup power supplies ○ SCADA • Service coordination. • Working drawings and protection settings • Budget construction cost • Tender documentation • Tender evaluation (if allowed by Acsa SCM) • Tender recommendation (if allowed by Acsa SCM) • Priced contract documentation (if required) • Local and other authority submission drawings, submissions, and reports. •	
Stage 5	Consultancy during the “Contract Administration and Inspection” Stage • Attend site handover • Issue construction documentation • Carry out contract administration in terms of the contract • Prepare cashflow estimates, projections and evaluations • Advise and agree on the Quality Control Plan • Inspect works for quality assurance • Adjudicate and resolve financial claims by contractor • Clarify details and descriptions during construction as required • Check and approve contractor drawings for design intent • Instruct, review and witness tests and/mock ups	

	• Update and issue drawing register • Review and comment on operation and maintenance manuals, guarantee certificates and warranties • Inspect works and issue practical completion and defects lists • Arrange for delivery of all test, statutory (regulatory) and other approvals, as built drawings and operating manuals • Deliverables ○ Schedule of predicted cashflow ○ Construction documentation ○ Drawing register ○ Estimates for variations ○ Contract instructions ○ Financial control reports ○ Payment certificates ○ Progressive and draft final accounts ○ Practical completion and defects list ○ Electrical certificate of compliance ○ Signed contracts ○ Approved construction programme ○ Progress reports ○ Record of meeting ○ Certificate of practical completion	
Stage 6	Consultancy during the “Close Out” Stage • Inspect and rectify the defects • Receive, comment, and approve relevant payment valuations and completion certificates • Prepare as-built drawings and documentation • Conclude the final accounts where relevant • Deliverables ○ Valuations for payment certificates ○ Works and final completion lists ○ Operations and maintenance manuals, guarantees and warranties ○ As-built drawing and documentation ○ Completion certificates ○ Record of meetings ○ Project closeout report List of Protection Settings	

Constraints on how the *Consultant* Provides the Services.

Management meetings

Regular meetings of a general nature may be convened and chaired by the *Employer’s Agent* as follows:

Title and purpose	Approximate time & interval	Location	Attendance by:
Progress Meeting • Risk register and compensation events • Overall contract progress and feedback	Fortnightly	ACSA Office	<i>Employer’s Agent</i> , <i>Consultant</i> and Contractor

Meetings of a specialist nature may be convened as specified elsewhere in this Scope or if not so specified by persons and at times and locations to suit the Parties, the nature and the progress of the *services*. Records of these meetings shall be submitted to the *Employer's Agent* 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.

Consultant's key persons

Refer to C1.2b Consultant Contract Data

Documentation control and retention

Identification and communication

No specific document control procedure and templates. All designs and specifications must be reviewed and approved by the Employer's agent. Communication through email and telephone is acceptable.

Invoicing and payment

The following details shall be shown on or attached to each Invoice to show how the amount due has been assessed:

The *Consultant* shall address the tax invoice to ACSA (O.R.Tambo International Airport) and include on it the following information:

Name and address of the *Consultant* and the *Employer's Agent*;

The contract number and title;

Consultant's VAT registration number;

The *Employer's* VAT registration number; **493 013 8393**

Total amount invoiced excluding VAT, the VAT and the invoiced amount including VAT;

Purchase order number

Inclusions in the programme

As per clause 31.2, payment of *Consultant* must be in line with the programme.

Quality management

System requirements

The *Consultant* shall at all times comply with the quality management system as stated in Clause 40.1.

Information in the quality plan

The *Consultant* shall at all times comply with the quality policy statement and quality plan as stated in Clause 40.2.

The Parties use of material provided by the *Consultant*

Transfer of rights if Option X 9 applies

The *Employer* owns the *Consultants's* rights over material prepared for this contract by the *Consultant* except as stated otherwise in the Scope.

Health and safety

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

Working on the *Employer's* property

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

Consultant are required to apply for permits for access to all areas of work and permit access card for accessing the Wire Centres will be arranged with the Employers agent.

People restrictions, hours of work, conduct and records

Any work that involves interruptions of power supply must be communicated with the Employers agent and such work would only be scheduled with electricians and other stakeholders involved, also it can only be conducted after hours with a confirmation of Airside Operations.

Things provided by the *Employer*

Consultant will obtain any information and equipment deemed important and necessary for the services provided to the *Employer*.

List of drawings

Drawings issued by the *Employer*

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

Drawing number	Revision	Title
J5923 E09/02	05	Main SLD OR Tambo Airport