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| Eskomlogo 2002 Black |

NEC3 Engineering & Construction Contract

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| **Between** | **ESKOM HOLDINGS SOC Ltd**  **(Reg No. 2002/015527/30)** | |
| **and** | **………………………………………………….**  **(Reg No. \_\_\_\_\_\_\_\_\_\_\_)** | |
| **for** | **Engineering, Procurement and Construction of 12.82MW Solar PV Plant at Arnot Power Station including 2-years of Operation and Maintenance.** | |
|  |  | |
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|  |  |  |
| **CONTRACT No.** | **46000……………….** | |
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Part C1: Agreements & Contract Data

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| --- | --- | --- |
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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:

# ARNOT SOLAR PV PLANT

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

By the representative of the tenderer, deemed to be duly authorised, signing this part of this Form of Offer and Acceptance the tenderer offers to perform all 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.

Delete the Options which do not apply

|  |  |  |
| --- | --- | --- |
| Options A | The offered total of the Prices exclusive of VAT is | **R** |
|  | Value Added Tax @ 15% is | **R** |
|  | The offered total of the amount due inclusive of VAT is[[1]](#footnote-2) | **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 *Contractor* in the *conditions of contract* identified in the Contract Data.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Signature(s) |  |  |  | |
| Name(s) |  |  |  | |
| Capacity |  |  |  | |
| **For the tenderer:** |  | | | |
| Name & signature of witness | *(Insert name and address of organisation)* |  | Date |  |
| Tenderer’s CIDB registration number (if applicable) | |  | | |

## Acceptance

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

The terms of the contract, are contained in:

Part C1 Agreements and Contract Data, (which includes this Form of Offer and Acceptance)

Part C2 Pricing Data

Part C3 Scope of Work: Works Information

Part C4 Site Information

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

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

The tenderer shall within two weeks of receiving a completed copy of this agreement, including the Schedule of Deviations (if any), contact the Employer’s agent (whose details are given in the Contract Data) to arrange the delivery of any securities, bonds, guarantees, proof of insurance and any other documentation to be provided in terms of the *conditions of contract* identified in the Contract Data 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 signed between them of this document, including the Schedule of Deviations (if any).

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

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Signature(s) |  |  |  | |
| Name(s) |  |  |  | |
| Capacity |  |  |  | |
| for the Employer |  | | | |
| Name & signature of witness | *(Insert name and address of organisation)* |  | Date |  |

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

## Schedule of Deviations to be completed by the *Employer* prior to contract award

Note:

1. 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 |  |  |
|  |  |  |

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 ECC3 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 *conditions of contract* 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**  **X3 Multiple currencies** | | | | | | | | | |
|  | |  | **X7: Delay damages**  **X13 Performance bond**  **X15: Limitation of *Contractor’s* liability for design to reasonable skill and care** | | | | | | | | | |
|  | |  | **X16: Retention** | | | | | | | | | |
|  | |  | X18: Limitation of liability | | | | | | | | | |
|  | |  | Z: *Additional conditions of contract* | | | | | | | | | |
|  | |  | **of the NEC3 Engineering and Construction Contract, April 2013 (ECC3)If 2005 Edition is to be used delete “April 2013” and replace with “June 2005 with amendments June 2006”. Always delete this note before finalising this Data** | | | | | | | | | |
| 10.1 | | The *Employer* is (Name): | **Eskom Holdings SOC Ltd (reg no: 2002/015527/30), a state owned company incorporated in terms of the company laws of the Republic of South Africa** | | | | | | | | | |
| Address | **Registered office at Megawatt Park, Maxwell Drive, Sandton, Johannesburg** | | | | | | | | | |
| 10.1 | | The *Project Manager* is: (Name) | **TBA** | | | | | | | | | |
| 10.1 | | The *Supervisor* is: (Name) | **TBA** | | | | | | | | | |
| 11.2(13) | | The *works* are | **Design, Engineering, Procurement, Construction, Start-up, Commissioning, Performance Testing, Operator and Maintenance Training of a Solar Photovoltaic (PV) Plant, and two (2) years of Operation and Maintenance at Arnot Power Station** | | | | | | | | | |
| 11.2(14) | | The following matters will be included in the Risk Register | * **Business forums** * **Delays due to labour strikes.** * **Fire and smoke** * **Ground conditions** * **Existing site services.** | | | | | | | | | |
| 11.2(15) | | The *boundaries of the site* are | **Geographically, the site lies** **between 25o 56’ and 25o 58’ S and between 29o 46’ and 29o 48’ E. The site is owned by Eskom Holding SOC Limited (Eskom) and located on the same property as the existing Eskom Arnot Power Station. The site is approximately 25.8 ha in size and included in portion 24 of the farm Rietkuil 491 JS.** | | | | | | | | | |
| 11.2(16) | | The Site Information is in | **Part 4: Site Information** | | | | | | | | | |
| 11.2(19) | | The Works Information is in | **Part 3: Scope of Work and all documents and drawings to which it refers.** | | | | | | | | | |
| 12.2 | | The *law of the contract* is the law of | **the Republic of South Africa** | | | | | | | | | |
| 13.1 | | The *language of this contract* is | **English** | | | | | | | | | |
| 13.3 | | The *period for reply* is | **seven (7) working days.** | | | | | | | | | |
| 2 | | The *Contractor's* main responsibilities | **Data required by this section of the core clauses is provided by the *Contractor* in Part 2 and terms in italics used in this section are identified elsewhere in this Contract Data.** | | | | | | | | | |
| 3 | | Time |  | | | | | | | | | |
| 11.2(3) | | The *completion date* for the whole of the *works* is | **12 (Twelve) Months from Start date** | | | | | | | | | |
| 11.2(9) | | The *key date*s and the *condition*s to be met are: | ***Condition* to be met** | | | | | | ***key date*** | | | |
|  | |  |  | **1. Detail Design Phase (Start & End)**  **2. Procurement (Start & End)**  **3. Construction (Start & End)**  **4. Commissioning & Testing (Start & End)**  **5. Taking Over Certificate Date (As applicable)** | | | | |  | | | |
|  | |  |  | **These are contract dates that must be shown on the contractor’s baseline schedule that will be binding for this contract.** | | | | |  | | | |
| 30.1 | | The *access dates* are: | | | **Part of the Site** | | | **Date** | | | |
|  | |  | | | **1** | **Contract Award** | | **Months 0-1** | | | |
| 31.1 | | The *Contractor* is to submit a first programme and forecasted rate of invoicing for acceptance within | **Two (2) weeks of the Contract Date.** | | | | | | | | | |
| 31.2 | | The *starting date* is | **Contract Award** | | | | | | | | | |
| 32.2 | | The *Contractor* submits revised programmes at intervals no longer than | **Every two (2) weeks and after any change.** | | | | | | | | | |
| 35.1 | | The *Employer* is not willing to take over the *works* before the Completion Date. |  | | | | | | | | | |
| 4 | | Testing and Defects |  | | | | | | | | | |
| 42.2 | | The *defects date* is | **One year after Completion of the whole of the *works*.** | | | | | | | | | |
| 43.2 | | The *defect correction period* is | **Two weeks.**  **Defect of such a nature that it cannot**  **reasonably be repaired in 1 week, the**  **Contractor promptly notifies the Project**  **Manager and submits a plan for correcting the Defect**  **The Contractor and Project Manager agree on a time allowed for defect correction, in**  **addition to the defect correction period**  **If no agreement is reached in respect of**  **further time allowed, the defect correction**  **period remains one week.** | | | | | | | | | |
| 5 | | Payment |  | | | | | | | | | |
| 50.1 | | The *assessment interval* is | **Monthly. Assessment to completed by the 30th of the month** | | | | | | | | | |
| 51.1 | | The *currency of this contract* is the | **South African Rand (ZAR)** | | | | | | | | | |
| 51.2 | | The period within which payments are made is | **Sixty (60) days from when the *Contractor* provides the *Employer* with an invoice in accordance with the *law of the contract* and the *Employer* requirements stated in the Z 8 Clauses and/or Works Information, reflecting the amount due for payment equal to that certified, accepted, or corrected by the *Employer, Employer’s Agent,* or decided by the *Adjudicator* or awarded by the *tribunal, as applicable*.** | | | | | | | | | |
| 51.4 | | The *interest rate* is | **dependant on the required currency of the payment.**  **(i) For ZAR, it is the publicly quoted prime rate published by the South African Reserve Bank.**  **(ii) For USD, it is the secured overnight financing rate (SOFR) administered by the Federal Reserve Bank of New York (or any other person which takes over the administration of that rate) published by the Federal Reserve Bank of New York (or any other person which takes over the publication of that rate), and depending on the period, the 30-day, 90-day or 180-day average SOFR (simple compounding convention) rates will apply and, for periods longer than 180 days, interest will be based on an extended 180-day period/s.**  **(iii) For other currencies, it is the publicly quoted risk-free reference rate as published by the applicable Central Bank of the applicable currency,**  **or, if this is not available,**  **the LIBOR rate applicable at the time for amounts due in other currencies. LIBOR is the 6 month London Interbank Offered Rate quoted under the caption “Money Rates” in The Wall Street Journal for the applicable currency or if no rate is quoted for the currency in question then the rate for United States Dollars, and if no such rate appears in The Wall Street Journal then the rate as quoted by the Reuters Monitor Money Rates Service (or such service as may replace the Reuters Monitor Money Rates Service) on the due date for the payment in question, adjusted mutatis mutandis every 6 months thereafter and as certified, in the event of any dispute, by any manager employed in the foreign exchange department of The Standard Bank of South Africa Limited/South African Reserve Bank, whose appointment it shall not be necessary to prove.** | | | | | | | | | |
| 6 | | Compensation events |  | | | | | | | | | |
| 60.1(13) | | The place where weather is to be recorded is: | **Arnot Power Station** | | | | | | | | | |
|  | | The *weather measurements* to be recorded for each calendar month are, | **the cumulative rainfall (mm)** | | | | | | | | | |
|  | |  | **the number of days with rainfall more than 10 mm** | | | | | | | | | |
|  | |  | **the number of days with minimum air temperature less than 0 degrees Celsius** | | | | | | | | | |
|  | |  | **the number of days with snow lying at 09:00 hours South African Time** | | | | | | | | | |
|  | |  | **and these measurements are supplied by South African Weather Bureau, the weather date, millimetres of the rainfall should be measured each calendar day.** | | | | | | | | | |
|  | |  |  | | | | | | | | | |
|  | |  |  | | | | | | | | | |
|  | |  |  | | | | | | | | | |
| 7 | | Title | **There is no reference to Contract Data in this section of the core clauses and terms in italics used in this section are identified elsewhere in this Contract Data.** | | | | | | | | | |
| 8 | | Risks and insurance |  | | | | | | | | | |
| 80.1 | | These are additional *Employer*'s risks | **Refer to clause 80.1 of NEC ECC** | | | | | | | | | |
|  | |  |  | | | | | | | | | |
|  | |  |  | | | | | | | | | |
| 9 | | Termination | **As per clause 90 of NEC3 ECC** | | | | | | | | | |
| 10 | | Data for main Option clause |  | | | | | | | | | |
| **A** | | **Priced contract with activity schedule** | **The main Option selected for this Contract is Option A: Priced Contract with Activity Schedule. Under this option, the Contractor is paid lump-sum amounts based on the completion of activities listed in the Activity Schedule, contained in C2 Pricing Data Option A.**  **The Activity Schedule shall:**   * **break down the works into activities that represent the full scope stated in the Contract,** * **show a lump-sum price for each activity,** * **correspond directly with the Works Information/Scope,** * **clearly indicate milestones, deliverables, tests, and commissioning activities,** * **include all preliminaries, project management costs, design (if applicable), temporary works, compliance requirements, and all obligations required by the Contract.**   **No activity shall be left unpriced.** | | | | | | | | | |
| 11 | | Data for Option W1 |  | | | | | | | | | |
| W1.1 | | The *Adjudicator* 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**](http://www.ice-sa.org.za)**). If the Parties do not agree on an Adjudicator the Adjudicator will be appointed by the Arbitration Foundation of Southern Africa (AFSA).** | | | | | | | | | |
| W1.2(3) | | The *Adjudicator nominating body* is: | **the Chairman of ICE-SA a joint Division of the South African Institution of Civil Engineering and the London Institution of Civil Engineers. (See** [**www.ice-sa.org.za**](http://www.ice-sa.org.za) **) or its successor body.** | | | | | | | | | |
| W1.4(2) | | The *tribunal* is: | **Arbitration.** | | | | | | | | | |
| W1.4(5) | | The *arbitration procedure* 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 arbitration procedure 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.** | | | | | | | | | |
| 12 | | Data for secondary Option clauses |  | | | | | | | | | |
| **X1** | | **Price adjustment for inflation** | **CPA does not apply for the first twelve (12) months of the contract period.** | | | | | | | | | |
| X1.1(a) | | The *base date* for indices is | **A month prior to the tender closing date.** | | | | | | | | | |
| **X2** | | **Changes in the law** | **There is no reference to Contract Data in this Option and terms in italics are identified elsewhere in this Contract Data.** | | | | | | | | | |
|  | |  |  | | | | | | | | | |
| **X2** | | **Changes in the law** | | | **There is no reference to Contract Data in this Option and terms in italics are identified elsewhere in this Contract Data.** | | | | | |
| **X3** | | **Multiple currencies** | | |  | | | | | | | |
| X3.1 | | The *Employer* will pay for these items or activities in the currencies stated | | | **Items & activities** | | **Other currency** | | | **Maximum payment in other currency** | | |
|  | |  | | | **[●]** | | **[●]** | | | **[●]** | | |
|  | |  | | | **[●]** | | **[●]** | | | **[●]** | | |
|  | |  | | | **[●]** | | **[●]** | | | **[●]** | | |
|  | |  | | | **[●]** | | **[●]** | | | **[●]** | | |
| X3.1 | | The *exchange rates* are those published in | | | **[●] on [●] (date)** | | | | | | | |
|  | |  | | | **The items & activities will be paid in the other currency**  **- to a foreign Bank account nominated by the *Contractor***  **- to a valid SARB approved CFC account in South Africa**  **- in accordance with an alternative payment method agreed with the *Employer* before the Contract Date.**  **(select one of the three methods as agreed with successful tenderer and delete the others and this note)** | | | | | | | |
| **X7** | | **Delay damages (but not if Option X5 is also used)** |  | | | | | | | | | |
| X7.1 | | Delay damages for late Completion *works* are | **10% of the total of the Price of the contract at 0.03% per day** | | | | | | | | | |
| **X16** | | **Retention (not used with Option F)** |  | | | | | | | | | |
| **X13** | | **Performance bond** | | |  | | | | | | | |
| X13.1 | | The amount of the performance bond is | | | **10% of Contract Value.** | | | | | | | |
| **X15** | | **Limitation of the Contractor’s liability for his design to reasonable skill & care** | | | **The Contractor’s obligation is therefore to exercise reasonable skill, care and diligence normally expected from a competent and experienced Contractor Designer who is professionally qualified and skilled in work of a similar nature, complexity, and size.**  **This Option does not limit the Contractor’s liability for:**   * **defects caused by failure to comply with the Scope,** * **errors arising from failure to use reasonable skill and care,** * **workmanship defects,** * **materials defects,**   **obligations or warranties expressly stated elsewhere in the Contract.** | | | | | |
| X16.1 | | The *retention free amount* is | | | **NIL (Zero Rand)** | | | | | |
|  | | The *retention percentage* is | | | **10 % of Contract Price for construction** | | | | | |
| **X18** | | **Limitation of liability** | | |  | | | | | |
| X18.1 | | The *Contractor*’s liability to the *Employer* for indirect or consequential loss is limited to: | | | **NIL** | | | | | |
| 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 amount of the deductibles relevant to the event** | | | | | |
| X18.3 | | The *Contractor*’s liability for Defects due to his design which are not listed on the Defects Certificate is limited to | | | **The Contractor’s liability for his design for the *works* is unlimited.** | | | | | |
| 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 Total of the Prices other than for the additional excluded matters.**  **The *Contractor’s* total liability for the additional excluded matters is not limited.**  **The additional excluded matters are amounts for which the *Contractor* is liable under this contract for**  **Defects due to his design which arise before the Defects Certificate for Construction**  **Defects due to manufacture and fabrication outside the Site,**  **loss of or damage to property (other than the *works*, Plant and Materials),**  **death of or injury to a person and**  **infringement of an intellectual property right.** | | | | | |
| X18.5 | | The *end of liability date* is | | | **(i) Five years after the Completionfor latent Defects and**  **(ii) the date on which the liability in question prescribes in accordance with the Prescription Act No. 68 of 1969 (as amended or in terms of any replacement legislation) for any other matter.**  **A latent Defect is a Defect which would not have been discovered on reasonable inspection by the *Employer* or the *Supervisor* before the *defects date*, without requiring any inspection not ordinarily carried out by the *Employer* or the *Supervisor* during that period.**  **If the *Employer* or the *Supervisor* do undertake any inspection over and above the reasonable inspection, this does not place a greater responsibility on the *Employer* or the *Supervisor* to have discovered the Defect.** | | | | | |
| **Z** | | **The *Additional conditions of contract* are** | **Z1 to Z12 always apply.** | | | | | | | | | |
|  |  | | | | | | | | | | | |
| **Z1** | **Cession delegation and assignment** | | | | | | | | | | | |
| Z1.1 | The *Contractor* does notcede, delegate or assign any of its rights or obligations to any person without the written consent of the *Employer.* | | | | | | | | | | | |
| Z1.2 | Notwithstanding the above, the *Employer* may on written notice to the *Contractor* cede and delegate its rights and obligations under this contract to any of its subsidiaries or any of its present divisions or operations which may be converted into separate legal entities as a result of the restructuring of the Electricity Supply Industry. | | | | | | | | | | | |
|  |  | | | | | | | | | | | |
| **Z2** | **Joint ventures** | | | | | | | | | | | |
| Z2.1 | If the *Contractor* constitutes a joint venture, consortium or other unincorporated grouping of two or more persons or organisations then these persons or organisations are deemed to be jointly and severally liable to the *Employer* for the performance of this contract. | | | | | | | | | | | |
| Z2.2 | Unless already notified to the *Employer*, the persons or organisations notify the *Project Manager* within two weeks of the Contract Date of the key person who has the authority to bind the *Contractor* on their behalf. | | | | | | | | | | | |
| Z2.3 | The *Contractor* does not alter the composition of the joint venture, consortium or other unincorporated grouping of two or more persons without the consent of the *Employer* having been given to the *Contractor* in writing. | | | | | | | | | | | |
|  |  | | | | | | | | | | | |
| **Z3** | | **Change of Broad Based Black Economic Empowerment (B-BBEE) status** | | | | | | | | | | |
| Z3.1 | | Where a change in the *Contractor’s* legal status, ownership or any other change to his business composition or business dealings results in a change to the *Contractor*’s B-BBEE status, the *Contractor* notifies the *Employer* within seven days of the change. | | | | | | | | | | |
| Z3.2 | | The *Contractor* is required to submit an updated verification certificate and necessary supporting documentation confirming the change in his B-BBEE status to the *Project Manager* within thirty days of the notification or as otherwise instructed by the *Project Manager*. | | | | | | | | | | |
| Z3.3 | | Where, as a result, the *Contractor’s* B-BBEE status has decreased since the Contract Date the *Employer* may either re-negotiate this contract or alternatively, terminate the *Contractor*’s obligation to Provide the Works. | | | | | | | | | | |
| Z3.4 | | Failure by the *Contractor* to notify the *Employer* of a change in its B-BBEE status may constitute a reason for termination. If the *Employer* terminates in terms of this clause, the procedures on termination are P1, P2 and P3 as stated in clause 92, and the amount due is A1 and A3 as stated in clause 93. | | | | | | | | | | |
|  | |  | | | | | | | | | | |
| **Z4** | **Ethics** | | | | | | | | | | | |
| Z4.1 | Any offer, payment, consideration, or benefit of any kind made by the *Contractor*, which constitutes or could be construed either directly or indirectly as an illegal or corrupt practice, as an inducement or reward for the award or in execution of this contract 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). | | | | | | | | | | | |
| Z4.2 | The *Employer* may terminate the *Contractor*’s obligation to Provide the Works if the *Contractor* (or any member of the *Contractor* where the *Contractor* constitutes a joint venture, consortium or other unincorporated grouping of two or more persons or organisations) is found guilty by a competent court, administrative or regulatory body of participating in illegal or corrupt practices.  Such practices include making of offers, payments, considerations, or benefits of any kind or otherwise, whether in connection with any procurement process or contract with the *Employer* or other people or organisations and including in circumstances where the *Contractor* or any such member is removed from the an approved vendor data base of the *Employer* as a consequence of such practice. | | | | | | | | | | | |
| Z4.3 | Notwithstanding the provisions of core clause 90.2, the procedures on termination in terms of this clause are P1, P2 and P3 as stated in the core clause 92 and the amount due is A1 and A3 as stated in core clause 93. | | | | | | | | | | | |
|  |  | | | | | | | | | | | |
| **Z5** | **Confidentiality** | | | | | | | | | | | |
| Z5.1 | The *Contractor* does not disclose or make any information arising from or in connection with this contract available to Others. This undertaking does not, however, apply to 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). Should the *Contractor* disclose information to Others in terms of clause 25.1, the *Contractor* ensures that the provisions of this clause are complied with by the recipient. | | | | | | | | | | | |
| Z5.2 | If the *Contractor* is uncertain about whether any such information is confidential, it is to be regarded as such until notified otherwise by the *Project Manager*. | | | | | | | | | | | |
| Z5.3 | In the event that the *Contractor* is, at any time, required by law to disclose any such information which is required to be kept confidential, the *Contractor*, to the extent permitted by law prior to disclosure, notifies the *Employer* so that an appropriate protection order and/or any other action can be taken if possible, prior to any disclosure. In the event that such protective order is not, or cannot, be obtained, then the *Contractor* may disclose that portion of the information which it is required to be disclosed by law and uses reasonable efforts to obtain assurances that confidential treatment will be afforded to the information so disclosed. | | | | | | | | | | | |
| Z5.4 | The taking of images (whether photographs, video footage or otherwise) of the *works* or any portion thereof, in the course of Providing the Works and after Completion, requires the prior written consent of the *Project Manager*. All rights in and to all such images vests exclusively in the *Employer*. | | | | | | | | | | | |
| Z5.5 | The *Contractor* ensures that all his subcontractors abide by the undertakings in this clause. | | | | | | | | | | | |
|  |  | | | | | | | | | | | |
| **Z6** | **Waiver and estoppel: Add to core clause 12.3:** | | | | | | | | | | | |
| Z6.1 | Any extension, concession, waiver or relaxation of any action stated in this contract by the Parties*,* the *Project Manager*, the *Supervisor*, or the *Adjudicator* does not constitute a waiver of rights, and does not give rise to an estoppel unless the Parties agree otherwise and confirm such agreement in writing. | | | | | | | | | | | |
|  |  | | | | | | | | | | | |
| **Z7** | | **Health, safety and the environment: Add to core clause 27.4** | | | | | | | | | | |
| Z7.1 | | The *Contractor* undertakes to take all reasonable precautions to maintain the health and safety of persons in and about the execution of the *works*. Without limitation the *Contractor*:  accepts that the *Employer* may appoint him as the “Principal Contractor” (as defined and provided for under the Construction Regulations 2014 (promulgated under the Occupational Health & Safety Act 85 of 1993) (“the Construction Regulations”) for the Site;  warrants that the total of the Prices as at the Contract Date includes a sufficient amount for proper compliance with the Construction Regulations, all applicable health & safety laws and regulations and the health and safety rules, guidelines and procedures provided for in this contract and generally for the proper maintenance of health & safety in and about the execution of *works*; and  undertakes, in and about the execution of the *works*, to comply with the Construction Regulations and with all applicable health & safety laws and regulations and rules, guidelines and procedures otherwise provided for under this contract and ensures that his Subcontractors, employees and others under the *Contractor’s* direction and control, likewise observe and comply with the foregoing. | | | | | | | | | | |
| Z7.2 | | The *Contractor*, in and about the execution of the *works*, complies with all applicable environmental laws and regulations and rules, guidelines and procedures otherwise provided for under this contract and ensures that his Subcontractors, employees and others under the *Contractor’s* direction and control, likewise observe and comply with the foregoing. | | | | | | | | | | |
| **Z8**  Z8.1  Z8.2  Z8.3  Z8.4 | **Provision of a Tax Invoice, payment and interest**  The *Contractor/* (if registered in South Africa in terms of the companies Act) is required to comply with the requirements of the Value Added Tax Act, No 89 of 1991 (as amended) and to include the *Employer/Client/Purchaser*’s VAT number 4740101508 on each invoice submitted for payment.  Within one week of receiving a payment certificate from the *Project Manager* or the *Employer* acceptance or correction of the *Contractor/* assessment or application for payment, the *Contractor/* provides the *Employer/* with a tax invoice in the form required by the *law of the contract*, and this contract, including in accordance with any requirements and procedures stated in the Works/Service/Goods Information/Scope, and showing the amount due for payment equal to that stated in the payment certificate, or that accepted or corrected assessment or application for payment.  If the *Contractor/* does not provide a tax invoice in the form, reflecting the certified, accepted or corrected amount and by the time required by this contract, the time by when the *Employer/* is to make a payment, and the date from which interest is assessed for the certified, accepted or corrected amount, is extended by a period equal in time to the delayed submission of the tax invoice.  The *Contractor* provision of a tax invoice reflecting the certified, accepted or corrected amount does not affect the Parties’ rights in terms of this contract, including with respect to disputed amounts. | | | | | | | | | | | |
|  |  | | | | | | | | | | | |
| **Z9** | **Notifying compensation events** | | | | | | | | | | | |
| Z9.1 | Delete from the last sentence in core clause 61.3, “unless the *Project Manager* should have notified the event to the *Contractor* but did not”. | | | | | | | | | | | |
|  |  | | | | | | | | | | | |
| **Z10** | ***Employer’s* limitation of liability** | | | | | | | | | | | |
| Z10.1 | The *Employer’s* liability to the *Contractor* for the *Contractor’s* indirect or consequential loss is limited to R0.00 (zero Rand) | | | | | | | | | | | |
| Z10.2 | The *Contractor*’s entitlement under the indemnity in 83.1 is provided for in 60.1(14) and the *Employer*’s liability under the indemnity is limited. | | | | | | | | | | | |
|  |  | | | | | | | | | | | |
| **Z11** | **Termination: Add to core clause 91.1, at the second main bullet point, fourth sub-bullet point, after the words "against it":** | | | | | | | | | | | |
| Z11.1 | or had a business rescue order granted against it. | | | | | | | | | | | |
|  |  | | | | | | | | | | | |
| **Z12** | **Addition to secondary Option X7 Delay damages (if applicable in this contract)** | | | | | | | | | | | |
| Z12.1 | If the amount due for the *Contractor*’s payment of delay damages reaches the limits stated in this Contract Data for Option X7 or Options X5 and X7 used together, the *Employer* may terminate the *Contractor*’s obligation to Provide the Works using the same procedures and payment on termination as those applied for reasons R1 to R15 or R18 stated in the Termination Table. | | | | | | | | | | | |
|  |  | | | | | | | | | | | |

Z 13 Cooperation with Operations and Maintenance Contractor

Z13.1 The Parties acknowledge and agree that (a) as of the start date the Contractor and the Contractor under the Operations and Maintenance Contract (O &M Contractor) are the same legal entity.

Z13.2 For the avoidance of doubt, if at any time after the Effective Date the O &M Contractor and the Contractor are no longer the same legal entity, then the Contractor further acknowledges and agrees that (i) the Employer’s objective is for the Contractor and the O&M Contractor , on a collaborative and coordinated basis, to design, supply, install, test, commission, operate and maintain the Arnot Solar PV plant in accordance with the terms of this Contract and the O&M Agreement, (ii) the Parties intend that this Contract will promote and support such objective, and that this Contract shall be performed and interpreted in a way that gives greatest effect to this purpose, and (iii) during the period from the Effective Date until Operational Acceptance, the Contractor shall use commercially reasonable efforts to coordinate its activities under this Contract with the O & M Contractor and the Employer in order to reduce duplicative efforts, maximize efficiencies, resolve disputes collaboratively and expeditiously, and minimize delays.

Z13.3 The Contractor shall take no action which could reasonably be expected to relieve the O &M Contractor from any obligation or liability under the O&M Agreement or to give rise to any claim by the O &M Contractor against the Employer

C1.2 Contract Data

# Part two - Data provided by the *Contractor*

**Notes to a tendering contractor:**

1. Please read both the NEC3 Engineering and Construction Contract (April 2013) and the relevant parts of its Guidance Notes (ECC3-GN)[[2]](#footnote-3) in order to understand the implications of this Data which the tenderer is required to complete. An example of the completed Data is provided on pages 156 to 158 of the ECC3 (April 2013) Guidance Notes.
2. The number of the clause which requires the data is shown in the left hand column for each statement however other clauses may also use the same data
3. Where a form field like this [     ] appears, data is required to be inserted relevant to the option selected. Click on the form field ***once*** and type in the data. Otherwise complete by hand and in ink.

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

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Clause | Statement | Data | | | |
| 10.1 | The *Contractor* is (Name): |  | | | |
|  | Address |  | | | |
|  | Tel No. |  | | | |
|  | Fax No. |  | | | |
| 11.2(8) | The *direct fee percentage* is | **%** | | | |
|  | The *subcontracted fee percentage* is | **%** | | | |
| 11.2(18) | The *working areas* are the Site and |  | | | |
| 24.1 | The *Contractor's* key persons are: |  | | | |
|  | 1 Name: |  | | | |
|  | Job: |  | | | |
|  | Responsibilities: |  | | | |
|  | Qualifications: |  | | | |
|  | Experience: |  | | | |
|  | 2 Name: |  | | | |
|  | Job |  | | | |
|  | Responsibilities: |  | | | |
|  | Qualifications: |  | | | |
|  | Experience: |  | | | |
|  |  | **CV's (and further key persons data including CVs) are appended to Tender Schedule entitled****.** | | | |
| 11.2(3) | The *completion date* for the whole of the *works* is |  | | | |
| 11.2(14) | The following matters will be included in the Risk Register |  | | | |
| 11.2(19) | The Works Information for the *Contractor*’s design is in: |  | | | |
| 31.1 | The programme identified in the Contract Data is |  | | | |
| **A** | **Priced contract with activity schedule** |  | | | |
| 11.2(20) | The *activity schedule* is in |  | | | |
| 11.2(30) | The tendered total of the Prices is | **(in figures)**  **(in words), excluding VAT** | | | |
|  | Data for Schedules of Cost Components | *Note “SCC” means Schedule of Cost Components starting on page 60, and “SSCC” means Shorter Schedule of Cost Components starting on page 63 of ECC3 (April 2013).* | | | |
| **A** | **Priced contract with activity schedule** | **Data for the Shorter Schedule of Cost Components** | | | |
| 41 in SSCC | The percentage for people overheads is: | **%** | | | |
| 22 in SSCC | The rates of other Equipment are: | **Equipment** | **Size or capacity** | | **Rate** |
|  |  |  |  | |  |
|  |  |  |  | |  |
|  |  |  |  | |  |
|  |  |  |  | |  |
|  |  |  |  | |  |
| 61 in SSCC | The hourly rates for Defined Cost of design outside the Working Areas are | **Category of employee** | | **Hourly rate** | |
|  | **Note: Hourly rates are estimated ‘cost to company of the employee’ and not selling rates.** |  | |  | |
|  | **Please insert another schedule if foreign resources may also be used** |  | |  | |
|  |  |  | |  | |
|  |  |  | |  | |
| 62 in SSCC | The percentage for design overheads is | **%** | | | |

Part 2: Pricing Data

**ECC3 Option A**

|  |  |  |
| --- | --- | --- |
| **Document reference** | **Title:** **Arnot Solar PV Plant** | **No of pages** |
| C2.1 | Pricing assumptions: Option A |  |
| C2.2 | The *activity schedule* |  |

C2.1 Pricing assumptions: Option A

# How work is priced and assessed for payment

Clause 11 in NEC3 Engineering and Construction Contract, (ECC3) Option A states:

|  |  |  |
| --- | --- | --- |
| **Identified and defined terms** | 11  11.2 | (20) The Activity Schedule is the *activity schedule* unless later changed in accordance with this contract. |
|  |  | (27) The Price for Work Done to Date is the total of the Prices for  each group of completed activities and  each completed activity which is not in a group.  A completed activity is one which is without Defects which would either delay or be covered by immediately following work. |
|  |  | (30) 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 contractor 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 54.1 in Option A states: “Information in the Activity Schedule is not Works Information or Site Information”. This confirms that specifications and descriptions of the work or any constraints on how it is to be done are not included in the Activity Schedule but in the Works Information. This is further confirmed by Clause 20.1 which states, “The *Contractor* Provides the Works in accordance with the Works Information”. Hence the *Contractor* does **not** Provide the Works in accordance with the Activity Schedule. The Activity Schedule is only a pricing document.

# Link to the programme

Clause 31.4 states that “The *Contractor* provides information which shows how each activity on the Activity Schedule relates to the operations on each programme which he submits for acceptance”. Ideally the tendering contractor will develop a high level programme first then resource each activity and thus arrive at the lump sum price for that activity both of which can be entered into the *activity schedule*.

# Preparing the *activity schedule*

Generally it is the tendering contractor who prepares the *activity schedule* by breaking down the work described within the Works Information into suitable activities which can be well defined, shown on a programme and priced as a lump sum.

The *Employer*, in his Instructions to Tenderers or in a Tender Schedule, may have listed some items that he requires the *Contractor* to include in his *activity schedule* and be priced accordingly.

It is assumed that in preparing his *activity schedule* the *Contractor:*

* Has taken account of the guidance given in the ECC3 Guidance Notes pages 19 and 20;
* Understands the function of the Activity Schedule and how work is priced and paid for;
* Is aware of the need to link the Activity Schedule to activities shown on his programme;
* Has listed and priced activities in the *activity schedule* which are inclusive of everything necessary and incidental to Providing the Works in accordance with the Works Information, as it was at the time of tender, as well as correct any Defects not caused by an *Employer’s* risk;
* Has priced work he decides not to show as a separate activity within the Prices of other listed activities in order to fulfil the obligation to complete the *works* for the tendered total of the Prices.
* Understands 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 *Contractor* estimated at time of tender. The only basis for a change to the Prices is as a result of a compensation event.

An activity schedule could have the following format:

|  |  |  |  |
| --- | --- | --- | --- |
| **Item**  **No.** | **Programme Reference** | **Activity description** | **Price** |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |
|  |  |  |  |

C2.2 the *activity schedule*

Use this page as a cover page to the *Contractor*’s *activity schedule*.

**Part 3: Scope of Work**

|  |  |  |
| --- | --- | --- |
| **Document reference** | **Title** | **No of pages** |
|  | This cover page | 1 |
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| C3.2 | *Contractor*’s Works Information  (insert at award stage or delete if not applicable) |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  | Total number of pages |  |

**C3.1: Employer’s works Information**

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1. **Description of the *works***
   1. **Executive overview**

Eskom Holdings SOC Ltd (the "*Employer")* desires to engage the services of an Engineering, Procurement and Construction (EPC) Contractor (the “*Contractor*”) to undertake, on a lump-sum basis under an EPC Contract (the “Contract”), all studies, permitting, design, engineering, procurement, manufacturing, deliveries to Site, execution, erection, commissioning, testing, completion until the end of the Defects Liability Period, making good defects and warranty cover during the Defects Liability Period, and other works (altogether defined as the “*Works*”) necessary to construct a solar photovoltaic (PV) power Plant (the “Plant”), the access road, the Site facilities and any additional infrastructure (the “Project”).

The Project is to be situated between 25o 56’ and 25o 58’ S and between 29o 46’ and 29o 48’ E. The site is owned by Eskom Holding SOC Limited (Eskom) and located on the same property as the existing Eskom Arnot Power Station. The site is approximately 25.8 ha in size and included in portion 24 of the farm Rietkuil 491 JS.

* 1. ***Employer*’s objectives and purpose of the *works***

The Arnot Solar PV Project is one of the reference projects within the iLanga Solar PV Rollout Programme and is aimed at showcasing Eskom’s capability of developing and executing utility scale ground mounted Solar PV projects. The Concept Design is executed to describe, evaluate, and propose technically feasible Solar PV designs for the identified Project site at Arnot Power Station. It is important to note that the Project will be executed by appointing an EPC Contractor. The EPC Contractor will perform the detailed design of the PV Plant, and may select components and designs that are different to the ones presented in this Concept Design

Eskom’s Renewables Operating Unit requires the capability to produce electricity generated from Solar PV to supply Arnot Power Station’s auxiliaries as identified in the Power Stations Site Screening. The objective of the Solar PV installation is to provide “clean” electricity to Arnot Power Station’s auxiliaries for own consumption, thereby increasing the overall electrical energy exported from Arnot Power Station onto the National Grid.

* 1. **Interpretation and terminology**

If required include here definitions additional to those used in the *conditions of contract* which are required only for the purpose of making the Works Information easier to draft and read. Also list abbreviations used and provide a full interpretation of each one, for example:

The following abbreviations are used in this Works Information:

|  |  |
| --- | --- |
| **Abbreviation** | **Meaning given to the abbreviation** |
| CV | Curriculum Vitae |
| EPC | Engineering, Procurement and Construction |
| MDL | Master Document List |
| O&M | Operation and Maintenance |
| PSiRA | Private Security Industry Regulatory Authority |
| PTW | Permit to Work |
| PV | Photovoltaic |
| SHEQ | Safety, Health, Environment and Quality |

1. **Management and start up.**
   1. **Management meetings**

Contract performance meetings will be set up from time to time between the *Contractor* and the Employer's Project Manager. The scheduling of these meetings will be at the discretion of Arnot Power Station 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 *Project Manager* as follows:

|  |  |  |  |
| --- | --- | --- | --- |
| **Title and purpose** | **Approximate time & interval** | **Location** | **Attendance by:** |
| Risk register and compensation events | Monthly at progress meetings. | Arnot Power Station | *Employer and Contractor (incl. risk management personnel from both parties)* |
| Overall contract progress and feedback | Monthly at progress and management meetings. | Arnot Power Station | *Employer (or representatives)* and *Contractor* |
| Design review progress | Weekly during design phase | Arnot Power Station | *Employer (or representatives) and the Contractor (incl. Lead Design Engineer).* |
| Site construction progress | Weekly during construction and commissioning phase | Arnot Power Station | *Employer (or representatives) and Contractor (incl. Site Supervisor, construction foreman, SHEQ personnel.)* |

Meetings of a specialist nature may be convened as specified elsewhere in this Works Information or if not so specified by persons and at times and locations to suit the Parties, the nature and the progress of the *works*. Records of these meetings shall be submitted to the *Project 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.

* 1. ***Contractor*’s management, Supervision, and Key People**
  2. **Documentation Control**
     1. **Documents for providing the Works**

The *Contractor* shall compose and submit all Documentation and Technical Information required throughout the project.

Also refer to the Arnot Solar PV Plant Functional Specification for Project Documentation requirements.

All documents supplied by the *Contractor* shall be subject to *Employer’s* acceptance The *Contractor* shall include the *Employer’s* drawing number in the drawing title block. This requirement only applies to design drawings developed by the *Contractor* and his *Sub-contractors*. Drawing numbers will be assigned by the *Employer* as drawings are developed.

In Providing the *Works*, all documentation and data prepared and submitted by the *Contractor* conforms with and adheres to the requirements of:

* On receipt of documentation from the *Project Manager*, the *Contractor* verifies receipt of all transmitted documentation, including document status/revision. The *Contractor* advises the *Project Manager* in writing of any discrepancies, omissions or poor quality in the documentation.
* The *Project Manager* ensures that the document schedule is maintained and kept up to date for the duration of the contract.
* Prior to commencement of any *Works*, the *Contractor* confirms with the *Project Manager* that the *Contractor* is in receipt of and is working to the latest revision of all necessary documentation. All rectification undertaken by the *Contractor* resulting from a failure to do so will be to the *Contractor*’s account.
* In cases where modifications or additions are required on Site, a Field Change Notification (FCN) will be submitted by the *Contractor*. The *Project Manager* will issue the required instruction and documentation. The *Contractor* will neatly mark up, on the latest edition and revision of such documentation as may be impacted, all field changes undertaken in the course of the construction and these mark-ups will be submitted as part of "As Built" documentation at the final hand over.
* Each supplier of documentation and data to the project is responsible for ensuring that all documentation and data submitted conforms to the Project Standards and data quality requirements in terms of numbering, uniqueness, quality, accuracy, format, completeness and currency of information. Data not meeting the Project Standards and data quality requirements will be cause for rejection and returned to the *Contractor* for corrective action and resubmission.
* Should any change be made to documentation or data, which has already been submitted to the *Contractor*, then new or revised documentation or data shall be issued by the *Project Manager* to replace the outdated information.
* The *Contractor* ensures that the Microsoft Office 2019, and Microsoft Project 2010 or Primevera or earlier software and suitable ‘IT’ Infrastructure are in place to support the electronic transmission of documentation.
* Electronic files submitted to or from the Project Manager, *Contractor*, and *Employer* are free of any known viruses and extraneous “macros”.
  + 1. **Transmittal**

An incoming transmittal note accompanies all documentation submitted, by the *Contractor*. Upon receipt of the transmittal, the *Employer* signs to indicate acknowledgement of receipt and returns this to the *Contractor.*

The *Contractor* ensures that the incoming transmittal contains the following minimum metadata:

* Transmittal title
* Transmittal number and revision
* Contract title
* Contract number
* Purpose
* Originator’s/ Sender contact information
* Issue status
* Authorisation date
* Number of sets of attached documents

All Project documents (soft copies and hard copies) submitted, are listed on the transmittal with the following metadata fields:

* Title of the document
* Document Unique Identification number
* Revision number
* Name of Discipline
* Reason for issuing/submission
* Sender’s detail
* Sent date
* Recipient’s Details
* Date received
* Quantity of documentation referenced on the transmittal
* Number of copies
* Format/medium submitted
* Sender signature
* Recipient signature, once submitted, to acknowledge receipt

The *Contractor* compiles and submits all the documentation, for the various phases of the project, in accordance with the agreed Programme. Documentation and drawings are programmed for delivery to meet the milestone dates and in accordance with the agreed MDL, that is to be developed by the *Contractor*.

The *Contractor* includes the *Employer’s* drawing number in the drawing title block. This requirement only applies to design drawings developed by the *Contractor* and his Sub-*Contractor*s. It does not apply to drawings developed by manufacturers for equipment and material such as valves, instruments, etc. Drawing numbers will be assigned by the *Employer* as drawings are developed.

* + 1. **Email Subject**

The email subject shall as a minimum, contain the following: **(Project Name\_Discipline\_Subject)**

Documentation is submitted to the *Project Manager*, as well as to the centralised and on-site Documentation Centres, by way of the following media:

* Electronic copies are submitted to both on site Documentation Centres, and to the *Project Manager* as well through generic email address (HYPERLINK "mailto:edrmsharedservices@eskom.co.za" edrmsharedservices@eskom.co.za).
* Electronic copies too large for email (above 6 Megabytes|), are delivered by large file transfer protocol.
* Hard copies are submitted to the *Project Manager*, accompanied by the Transmittal Note. These transmittals are also scanned and a copy sent to the project e-mail address as per the first bullet.
  + 1. **Identification of the Documentation**

The document will have the following as a minimum attribute on the cover page:

* Title of the document
* Document Unique Identification number (*Employer’s* number)
* *Contractor* Document number, if applicable
* Document status
* Revision number
* Document Type
* Document security level
* Document revision table/history
* Page number on the footer
* Document Author/Authoriser/
* Document Originator *Contractor*

The following additional attributes are important for technical documents:

Package/System name, sub-system if applicable

* *Contractor* name
* *Contractor* number
* Plant Identification Codes
  + 1. **Format and Layout of Documents**

For consistency, it is important that all documents used within a specific domain follow the same layout, style and formatting standard.

All Documents shall be equipped with an index where applicable. Such index shall be hyperlinked in electronic formats of the Documents. The *Contractor* shall submit the final Documentation in electronic format and on paper copies as shown in the table below.

|  |  |  |  |
| --- | --- | --- | --- |
| **Paper Copies** | **Paper Copies** | | **Flash Disk** |
| **Number** | **Size** | **Number** |
| Documents | 2 | A4/A3 | 3 |
| Reports, Calculations and Technical Documents | 2 | A4 | 3 |
| Programmes and Work Plans | 2 | A3/A4 | 3 |
| Method Statements | 2 | A4 | 3 |
| Technical Data | 2 | A4 | 3 |
| Drawings | 2 | A2/A3 | 3 |
| Manufacturer's Information | 2 | A4 | 3 |
| Controls & Wiring Diagrams | 2 | A3/A4 | 3 |
| Scada Software | - | - | 3 |
| Antivirus Software | - | - | 3 |
| Test Certificates | 2 | A4 | 3 |
| Commissioning Records | 2 | A4 | 3 |
| O&M Manuals | 2 | A4 | 3 |
| Guarantees & Warranties | 2 | A4 | 3 |
| Reference Codes, Standards and Guides | 2 | - | 3 |

The *Contractor* shall employ all appropriate project electronic document handling systems for the transmission of the Documentation. Any or all of the *Contractor’s* Documents may be reviewed by the *Employer* to verify compliance with the Works Information Document and accordance with the Design Intent. All *Contractor’s* Documents selected for review will be given a status mark as shown in the table below.

|  |  |  |
| --- | --- | --- |
| **STATUS  MARK** | **REVIEW COMMENT** | **MEANING** |
|  | No comment | The *Contractor* may proceed. |
|  | Comments as noted | The *Contractor* may proceed at their own risk, incorporating the comments in a timely manner, and resubmit. |
|  | Re-submit before proceeding | The *Contractor* must resubmit before proceeding. |

Any incomplete or substandard submissions will automatically be given 'C' status. The *Contractor* shall allow a period for the *Employer* to review and comment on the *Contractor’s* submitted Documents, as shown in the table below.

|  |  |  |
| --- | --- | --- |
| **TYPE OF SUBMISSION** | **WORKING  DAYS** | **FROM** |
| Contractors’ Documents | 5 | Before date required by the Contractor |
| Draft O&M Manuals, draft record drawings and performance data | 5 | Before start of testing and commissioning |
| Commissioning & Testing Records | 5 | After tests |
| Input to the project Health & Safety File | 5 | Before construction commences |
| ‘A’ Status O&M Manuals and Record Drawings | 5 | Before Practical Completion |

Comments given by the *Employer* do not relieve the *Contractors* of their responsibilities and obligations regarding the execution of *the works* and compliance with the Contract Documentation and the Works Information Document. Comments given by the *Employer* do not constitute a Change under the Contract.

* + 1. **Layout and Typography**

Ensure that every document complies with the following font specifications:

* Font Colour: Black
* Main Headings Font Type: Arial, Bold, Capital Letters
* Main Heading Font Size: 12pt
* Subheadings Font Type: Arial, Bold, Title Case
* Subheadings Font Size: 11pt
* Body Font Type: Arial, Sentence Case i.e., only the first letter of the first word is a capital letter.
* Body Text Font size: 11pt
* Line Spacing: 1.5 line spacing
* Margins: standard
* Alignment: full justification to be used
* Paragraphing: one line skip between paragraphs
* Pagination: centered page numbers (about 0.5 inches from bottom)
* Indentations: standard tab for all paragraphs (about 0.4 to 0.5 inches)
  + 1. **Drawings**

The creation, issuing and control of all Engineering Drawings will be in accordance to the latest revision of the *Employer*’s standard: 240-86973501 (Engineering Drawing Standards – Common Requirements).

Drawings issued to the *Employer* may not be “Right Protected” or encrypted.

* + 1. **Engineering Change Management**

Any design changes that may be required on designs accepted by the Employer shall follow an engineering change process. The Contractor to submit his engineering change process to the Employer for approval 4 weeks after Contract award. The updated design to follow the document submission process as indicated in Functional Specification for Arnot Solar PV Plant. The Employer response times for the approval of design changes are 14 days.

* + 1. **Handover requirements**

The *Contractor* is required to handover documentation in such a way that it is compatible with Eskom Quality systems.

* 1. **Health and safety risk management**

In addition to the requirements of the laws governing health and safety, Eskom may have some additional requirements particular to the *works* and the Working Areas for this contract. The text below provides for these being attached as an Annexure to this Works Information. PLEASE ALSO READ CORE CLAUSE 27.4 TOGETHER WITH Z7 IN THE ADDITIONAL CONDITIONS OF CONTRACT TO MAKE SURE THAT WHATHEVER IS INCLUDED IN THE ANNEXURE FOLLOWS ON FROM THOSE CLAUSES.

The Divisional/Regional Safety Risk Manager or his representative having jurisdiction over the *works* must provide the relevant safety, health and environmental (SHE) criteria for incorporation into this Works Information. The SHE specification / scope must be signed off by the Divisional/Regional Safety Risk Manager or his representative confirming that the applicable safety criteria have been taken into account.

The Commodity Manager / Buyer must refer the tender to the Divisional/Regional Safety Risk Manager or his representative in order to evaluate against enquiry-specific safety criteria.

The Divisional Safety Risk Managers who will be responsible for the allocation of resources to assist P&SCM with the above processes are as follows:

· Generation: Roley McIntyre

· Transmission: Tony Patterson

· Distribution: Alex Stramrood

· Enterprises: Jace Naidoo

· Corporate: Kerseri Pather

The C*ontractor* shall comply with all health and safety requirements stated in OHS requirements for OHS requirements for Arnot solar PV 19.5 mw project to this Works information.

* 1. **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 Power Station or any other person working at the Arnot Power Station.

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

Arnot Power Station 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, but not limited to, the Arnot Solar PV Plant Functional Specification including the environmental authorisation.

* 1. **Quality Assurance Requirements**

The Contractor shall comply with all quality assurance requirements applicable to the Design, Supply, Installation and Commissioning of the Solar PV Plant at Arnot Power Station. This includes full adherence to:

* The Quality Requirements for the Contractor Appointed to Design, Supply, Install and Commission Arnot Power Station, and
* The Arnot Solar PV Plant Functional Specification,
* together with all standards, procedures, and protocols issued or adopted by Arnot Power Station.

The Contractor shall ensure that all design and installation activities are executed in accordance with the approved programme, and that all design deliverables, installation works, inspections, tests and commissioning tasks are performed when required and within the contractual timelines.

The Contractor shall carry out the Works in full compliance with Arnot Power Station’s established procedures, the Occupational Health and Safety Act, and all statutory and regulatory requirements. Pre-work and post-work inspections shall be undertaken for every activity to ensure site cleanliness, serviceability, compliance with safety measures, and maintenance of good housekeeping throughout the duration of the Works.

A formal Facility Handover Process shall be undertaken at completion of the Works in accordance with the Employer’s handover and acceptance procedures.

All Works shall be executed in accordance with prevailing industry norms, practices, and standards for quality applicable to utility-scale photovoltaic plants. The Contractor shall prepare, update and submit Quality Plans and associated inspection and test documentation to the Project Manager at intervals required by the Project Manager or as stipulated in the Contract.

Special emphasis must be placed on:

* ensuring that all installation works are conducted as planned and when required,
* maintaining and improving landscaping, site conditions and general housekeeping, and
* ensuring that workmanship meets high technical, environmental, and operational standards.
  + 1. **Design Quality Requirements**
* Compliance with all applicable SANS, IEC, ISO, NRS, and electrical grid codes.
* Submission and approval of Design Basis Documents (DBDs) and design criteria.
* Structural design reports for module mounting structures, including:
  + wind loading,
  + geotechnical parameters,
  + corrosion protection method statements.
* PV module layout drawings, stringing diagrams, inverter sizing, and cable routing plans.
* DC and AC protection design, earthing and bonding design, and lightning protection design.
* SCADA architecture and communication protocols.
* Hazard Identification and Risk Assessments (HIRAs) for design-related risks.
* Design compliance matrix cross-referenced against the Arnot PV Plant Functional Specification.
  + 1. **Procurement Quality Requirements**
* Supplier quality documentation, including test certificates and type-test reports for:
  + PV modules (IEC 61215, IEC 61730),
  + Inverters (IEC 62109, IEC 62116, IEEE 1547),
  + Transformers (SANS/IEC 60076),
  + Cables (SANS 1507 series),
  + Breakers and protection devices (IEC 60947, IEC 60898).
* Material inspection upon arrival (visual, dimensional, certification verification).
* Storage quality control: protection from moisture, theft, damage, UV exposure.
* Factory Acceptance Tests (FAT) for major equipment (inverters, MV switchgear, transformers).
  + 1. **Civil Works Quality Requirements**
* Earthworks QA: compaction tests, layer works density, drainage systems.
* Foundations: concrete cube tests, rebar inspection, anchor bolt setting-out.
* Structural tolerances for module mounting systems (vertical, horizontal, torque values).
* Perimeter fencing installation and security infrastructure verification.
* Access road condition, stormwater management and erosion control
  + 1. **Mechanical Installation Quality Requirements**
* Verification of mounting structure installation according to manufacturer’s specs.
* Bolt torque checks with calibrated torque wrenches; torque logs submitted.
* Anti-corrosion treatments, galvanizing checks, coating thickness tests.
* PV module installation inspections:
  + alignment,
  + tilt and azimuth accuracy,
  + module integrity (no cracks, chips or hotspots).
* Correct installation of DC combiners, string harnesses, connectors, and gland plates.
* Mechanical strain relief and cable management (UV-rated ties, trays, supports).
  + 1. **Electrical Installation Quality Requirements**
* Cable insulation resistance testing (IR tests) for DC and AC circuits.
* Polarity verification for all DC circuits.
* Continuity tests for earthing and bonding systems.
* Installation of surge protection devices (SPDs) in accordance with IEC 61643.
* Verification that minimum bend radii and derating requirements are respected.
* MV cable testing—VLF or as per applicable SANS/IEC standard.
* Transformer testing on site (ratio, insulation, oil analysis).
* Protection relay configuration and settings as per grid code and ESKOM requirements.

**SCADA, Communication & Control Quality Requirements**

* SCADA point-to-point (P2P) testing.
* Integration testing with Eskom’s remote supervisory system, including:
  + alarms,
  + status indications,
  + real-time telemetry,
  + historical trending.
* Inverter communication link verification (Modbus, IEC 61850, TCP/IP).
* Time synchronisation validation (NTP/GPS).
* Testing of weather station, irradiance sensors, temperature probes and trackers (if applicable).
  + 1. **Testing & Commissioning Requirements**
* Pre-commissioning checklists and functional tests for all equipment.
* DC string testing: open-circuit voltage (Voc), short-circuit current (Isc) verification.
* Inverter start-up tests, protection trip tests, anti-islanding tests.
* MV switchgear commissioning, interlock verification, and load tests.
* LV systems testing: UPS, DBs, auxiliary circuits.
* Performance Ratio (PR) verification upon initial energisation.
* Soak tests and reliability run for continuous performance.
* Final performance testing in accordance with IEC 61724 and Eskom requirements.
  + 1. **Environmental & Landscaping Requirements**
* Soil rehabilitation and grading after works completion.
* Restoration of all disturbed areas, removal of waste and construction debris.
* Landscaping as per environmental specifications and EMP.
* Maintaining site cleanliness and erosion control up to handover.
  + 1. **Documentation & Handover Quality Requirements**
* Compilation of full Quality Dossier including ITPs, FATs, SATs, test certificates and as-built records.
* Submission of as-built drawings in editable and PDF formats.
* O&M manuals, spares lists, warranty documents, and manufacturer certifications.
* Training of Eskom O&M personnel (classroom and practical).
* Completion and sign-off of the Facility Handover Process according to Arnot PS requirements.
  1. **Programming Constraints** 
     1. **General**

The Contractor submits a single programme that incorporates the whole scope of work. Project key dates as defined later in this section, are incorporated into the program.

* + 1. **Computerised Planning and Reporting**

The Project Manager does not intend duplicating the Contractor’s programming and planning, however, portions or high-level extractions of the Accepted Programme may be used in the Employer’s internal master project programme for control purposes.

The Contractor submits updated computer files on a fortnightly basis, or at any other time as required by the Contractor or as instructed by the Project Manager.  The updated computer file shows the logic and all filters and layouts used in the programme.

Primera 6 has been adopted by the Employer for all planning, progress monitoring and reporting on this project. The Contractor obtains this software and uses it for the planning and control of the works.

* + 1. **Planning methodology and programme levels**

All planning is done based on the critical path method (CPM).  The programme shows the actual critical path(s) clearly. The programme layout takes into account the approved WBS, reflecting the manner the works are to be performed and how control data are to be summarised, reported and monitored.

The following levels of programme are to be used for this project for dynamic integrated project control:

* + Project level programme (Level 2)
  + Control level programme (Level 3)
    1. **Project Level Programme (LEVEL 2)**

The project is not complex and does not involve multiple parties and interfaces; therefore, a project level programme will provide the level of detail required for reporting. It will include:

* + A "rolled up" programme from the control level programme information
  + Established goals or major milestone key dates.
  + The duration of major operations and their relationship to one another.
    1. **Control Level Programme (LEVEL 3)**

The project level programme is prepared representing the significant work activities and deliverables associated with the works.  The end product is a time scaled bar-chart schedule developed through use of a critical path logic network The control level programme is resource-loaded. It forms the basis for progress measurement, progress curves and histograms for the project.

Resource information for manpower, plant, material and equipment and reflected in resource histograms is to be provided by the Contractor.  Staffing Histograms are required to be submitted based on “equivalent personnel”.  Staffing histograms are updated with actual data for each reporting period and re-forecast as required should significant deviations occur. The program makes provision for “non-activities” like curing of concrete, or site related preparation such as safety induction, training and medical examinations of all of the Contractor’s staff that are working on site.

* + 1. **Submission of Revised Programmes and Progress Reporting**

The Contractor is to submit two hard copies and one soft copy (in Primera 6 portable document format (PDF)) of each revised programme and schedule progress report to the Project Manager for acceptance. All formally issued reports are to follow the progress reporting requirements as stated below

* + 1. **Fortnightly Progress Report**

The contents of the report should not vary much from report to report since the work is fairly uniform. However, the basic framework of the report is to consist of the following:

* + Narrative in an executive summary format identifying major movement within the reporting period.
  + Status overview.
  + Key issues / Items of Concern and Corrective actions.
  + Progress curves and tabular progress reports.
  + Cost and Cash flow.
  + Early Warning Log.
  + Compensation Event Log
    1. **Weekly Status Report**

A weekly status report is to be submitted by the Contractor to the Project Manager. This report is less formal than the fortnightly report and is used as a tool for the day-to-day management of the project. Contents of a weekly report may include the following items:

* + Programme summary narrative.
  + Progress and performance summaries.
  + Schedule rolling horizon (2 weeks in advance)
  + Milestone Completion and Key Milestone status
  1. ***Contractor*’s Management, Supervision, and Key people**

The Contractor shall submit an organogram (as part of the Returnable Schedules) showing his employees 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 Annexure E.

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 submitted as part of the Returnable Schedules. The submitted Contractor’s Resource Proposal will be attached as Part of C2.2 (The Price List). 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 Plan accordingly. All instructions and authorisations on this contract will come from the client's Projects 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 Arnot Power Station Safety and Environment procedures.
3. Behave in a professional and lawful conduct
4. Be courteous to all Arnot Power Station customers and stakeholders.
   1. **Invoicing and payment**

The Z clauses make reference to invoicing procedures stated here in this Service Information. Also include a list of information which is to be shown on an invoice.

Within one week of receiving a payment certificate from the *Project 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 *Project Manager’s* payment certificate.

The *Contractor* shall address the tax invoice to Eskom Holdings SOC Ltd and include on each invoice the following information:

* Name and address of the *Contractor* and the *Project Manager;*
* The contract number and title;
* *Contractor*’s VAT registration number;
* The *Employer*’s VAT registration number 4740101508;
* 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)

The contractor attaches the detailed assessment for the amount to each Tax Invoice showing the Price for the Work Done to date for each item in the price list for work which he has completed.

The original Invoice shall be submitted to the following Address:

Eskom Holdings SOC Ltd

Attention: Services Manager (Name)

Arnot Power Station

Private Bag X2 Rietkuil

Arnot

1097

Email: [XXXX@eskom.co.za](mailto:XXXX@eskom.co.za)

* 1. **Insurance provided by the *Employer***

Refer to clause 8 Contract Data (Part one – Data provided by the *Employer*).

For all *Employer* Insurance related queries, contact:

* Cluster Manager
* Eskom Insurance Management Services
* Eskom Holdings SOC Ltd
* Megawatt Park
* 011 800 2714
  1. **Contract change management**

All Compensation Events shall be managed in accordance with Core Clause 6 of the NEC3 Engineering and Construction Contract (ECC). This section sets out additional requirements and procedures that apply to this Contract.

* + 1. **Notification of Compensation Events**

The Contractor shall notify the Project Manager of any event that may constitute a Compensation Event within one (1) week of becoming aware of the event. Notifications shall be submitted using the approved Eskom CE Notification Form (Form CE-1) and shall include sufficient detail to identify the event, its cause, and its potential impact on the Works.

* + 1. **Assessment and Quotations**

Quotations for Compensation Events shall be prepared in accordance with Core Clause 63.

Quotations shall include a detailed breakdown of cost, time effects, and risk allowances, supported by timesheets, material quotations, equipment rates, and any other relevant substantiating documentation.

The Contractor shall submit quotations within two (2) weeks of receiving the Project Manager’s instruction to submit a quotation.

* + 1. **Use of Standard Forms and Registers**

All Compensation Event notifications, assessments, and quotations shall be submitted using the standard Eskom forms:

* CE Notification – Form CE-1
* CE Quotation – Form CE-2
* CE Assessment – Form CE-3

The Project Manager shall maintain the Compensation Event Register, which shall be updated monthly and reviewed at CE meetings.

* + 1. **Compensation Event Meetings**

Monthly Compensation Event Review Meetings shall be held between the Parties to review:

* open and pending Compensation Events,
* submitted quotations,
* approvals or rejections, and
* forecast impacts on the **Works**, the programme, and the Prices.

Minutes shall be recorded and issued by the Project Manager.

* + 1. **Records and Supporting Information**

The Contractor shall maintain accurate, contemporaneous records to support any Compensation Event submission, including:

* labour timesheets,
* equipment usage logs,
* material cost evidence,
* subcontractor quotations,
* records of delays, disruptions, or other impacts affecting the Works.
  + 1. **No Change Without Instruction**

No change to the Works, programme, or Prices shall be implemented without a written instruction issued by the Project Manager, except in emergency situations as provided under Core Clause 25.4.

* 1. **Provision of bonds and guarantees**

The form in which a bond or guarantee required by the *conditions of contract* (if any) is to be provided by the *Contractor* is given in Part 1 Agreements and Contract Data, document C1.3, Sureties.

The *Employer* may withhold payment of amounts due to the *Contractor* until the bond or guarantee required in terms of this contract has been received and accepted by the person notified to the *Contractor* by the *Project Manager* to receive and accept such bond or guarantee. Such withholding of payment due to the *Contractor* does not affect the *Employer*’s right to termination stated in this contract.

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

The Contractor is to maintain accurate records of all cost related documents, in the event that the Project Manager may request such records.

* 1. **Training workshops and technology transfer**

Please refer to the Arnot Solar PV Plant Functional Specification for training related requirements, including, but not limited to, sections 3.4.

1. **Engineering and the *Contractor*’s design**

The *Project Manager* will require viewing and a demonstration on all equipment the Contractor for usage as per the scope of work. Reason being that the *Project Manager* will want to satisfy him/herself that the equipment is of good quality, sustainable and appropriate for the works. However, all Design, supply and Installation and liability remain with the Contractor.

* 1. ***Employer*’s design**

The Employer’s design requirements are provided in the Arnot Solar PV Plant Functional Specification.

* 1. **Parts of the *works* which the *Contractor* is to design**

The *Contractor* is responsible for the design of the entire *Works*. Please refer to the Arnot Solar PV Plant Functional Specification for the respective design requirements.

* 1. **Procedure for submission and acceptance of *Contractor*’s design**

The *Contractor’*s design shall comply with all design requirements stated in Arnot Solar PV Plant Functional Specification.

* 1. **Other requirements of the *Contractor*’s design**

The *Contractor* is mandated in terms of Construction Regulations 2014: Duties of Designer, 6(1) g to fulfil the duties described therein. Any risk associated with the *Contractor’s* design shall be highlighted to the *Employer* together with mitigation measures. These risks shall be included in the project risk register.

* 1. **Use of *Contractor*’s design**

In accordance with Core Clause 22.1, the Employer (Eskom) has the right to use the Contractor’s design for the purposes of constructing, operating, maintaining, altering, repairing and decommissioning the Works.

The Contractor grants Eskom a non-exclusive, irrevocable, royalty-free licence to use, copy, adapt, reproduce and share all design documents, drawings, models, software, specifications, calculations and any other design-related deliverables created for the Works, for any purpose connected with:

* the execution of the Works,
* future operation and maintenance of the Works,
* modifications, extensions or upgrades, and
* any statutory, regulatory or safety-related requirement.

This right of use applies without limitation in time and continues to apply after Completion or Termination of the Contract.

The Contractor shall obtain from its Subcontractors, designers and suppliers any consents or rights necessary to ensure that Eskom’s use of the design is not restricted in any manner.

* 1. **Design of Equipment**

For complex or specialised Equipment required to Provide the Works, the Contractor shall make available to the Project Manager, upon request, such design information, drawings, calculations, specifications or method statements relating to the design, capability, capacity or configuration of the Equipment as may reasonably be required for assurance that the Equipment is suitable for the intended purpose and will enable the Contractor to Provide the Works safely, efficiently and without delay.

The Project Manager’s review of such information is not an acceptance, does not change the Contractor’s obligations, and does not transfer any liability to the Project Manager or the Employer. The Contractor remains solely responsible for:

* the adequacy, safety, design, selection and performance of the Equipment,
* the competence of any designers or suppliers of the Equipment,
* the consequences of using such Equipment, and
* ensuring that its design and operation comply with all laws, standards and the requirements of this Contract.

Any comments, observations or requests for clarification made by the Project Manager do not relieve the Contractor from any obligation or liability under the Contract. Nothing in this clause prejudices the Project Manager’s rights under Core Clause 23.1.

* 1. **Equipment required to be included in the *works***

None

* 1. **As-built drawings, Operating Manuals and Maintenance schedules**

All as-built drawings, operational manuals and maintenance schedules shall be provided to the Employer in adherence with the applicable requirements stated in the relevant section of the Arnot Solar PV Plant Functional Specification. These documents shall be submitted in both electronic and hard copy format and delivered no later than four weeks prior to Completion of the whole of the works. The Contractor ensures that all documents are complete, accurate and accepted by the Project Manager before Completion.

1. **Procurement**

This Contract uses a priced Activity Schedule as described under Option A of the NEC3 Engineering and Construction Contract (ECC).

This Procurement Works Information covers the supply, delivery, factory testing, certification, labour procurement, and warranty obligations for all equipment, materials, and personnel required for the Arnot Solar PV Plant. The Contractor shall procure all plant, equipment, components, materials, and labour resources in accordance with the specifications, standards, policies, and requirements set out below.

The Contractor must comply with all Arnot Power Station procedures, access requirements, procurement controls, and safety rules when procuring equipment, spares, labour, or services. No casual labour (i.e., “off-the-street” labour) may be employed by the Contractor unless this is pre-arranged with Arnot Power Station. Where casual labour is required, the Contractor shall agree with Arnot Power Station on the approved sourcing, vetting, medicals, background checks, and site-access screening of such individuals.

No undefined Price List expenditure will be allowed. Where the need for such items arises, it must be motivated, justified and approved in writing by the Service Manager before procurement.

The Contractor shall provide, procure, and deliver all necessary materials, consumables, tools, instruments and equipment required for execution of the Works.

* 1. **People**
     1. **Minimum requirements of people employed on the Site**

The Contractor shall ensure that all labour procured for the Works meets the following minimum requirements:

* Only competent, qualified, and medically fit personnel may be deployed on Site.
* All personnel must undergo Arnot Power Station induction, safety training, and security clearance before accessing Site.
* Where foreign nationals are employed, the Contractor shall ensure:
  + Valid work permits
  + Home Affairs compliance
  + Proof of competence and trade qualifications
* Labour procurement must comply with national legislation, including:
  + Labour Relations Act
  + Basic Conditions of Employment Act
  + Employment Equity Act
  + OHS Act and Construction Regulations
* Any requirement to use local labour or designated community labour (if applicable) must be incorporated into the Contractor’s labour procurement plan.
* The Contractor shall manage all disciplinary, industrial relations and labour matters, ensuring no disruption to Arnot Power Station operations.
* All subcontractor labour remains the full responsibility of the Contractor.
  + 1. **BBBEE and preferencing scheme**

The Contractor shall comply with all Broad-Based Black Economic Empowerment (B-BBEE) requirements applicable to Eskom contracts, including:

* Use of B-BBEE compliant suppliers and subcontractors
* Submission of a valid B-BBEE certificate or sworn affidavit
* Preferencing or supplier development commitments where specified
* Reporting of B-BBEE expenditure on procurement
* Participation in Eskom’s localisation, transformation or supplier development initiatives, where applicable

The Contractor shall maintain its B-BBEE status for the duration of the Contract and shall notify the Project Manager of any changes that may impact compliance.

* + 1. **Accelerated Shared Growth Initiative – South Africa (ASGI-SA)**

Not Applicable

* 1. **Subcontracting**
     1. **Preferred subcontractors**

The NEC3 ECC does not make provision for nominated subcontractors; however, the Employer may identify preferred subcontractors or suppliers from whom the Contractor is required, expected, or encouraged to procure certain plant, materials, equipment, or specialist services.

This requirement is applicable where:

* The equipment must comply with Eskom operational standards;
* Only certain OEMs or accredited suppliers are approved for the Arnot Power Station environment;
* System integration is required for SCADA, protection, communication, and metering systems;
* Specialist engineering support is required to comply with the Arnot Solar PV Plant Functional Specification.

It is strongly preferred that the Contractor appoints adequately qualified and experienced Subcontractors and Consulting Engineers to support the execution of the Works as described in this Works Information and in the *Arnot Solar PV Plant Functional Specification*, including but not limited to:

* Solar PV engineering design specialists (DC/AC, layout, energy modelling)
* Structural engineering firms for module support structures and foundations
* Electrical subcontractors accredited for MV/HV works
* OEM-approved installers for inverters, protection relays, SCADA and communication systems
* Civil contractors for earthworks, trenching, roadworks and drainage
* Accredited testing and commissioning specialists
* Environmental quality and safety consultants (where required)
  + 1. **Requirement for Acceptance by the Project Manager**

All proposed subcontracting arrangements—including the appointment of subcontractors, suppliers, consultants, or specialist service providers—shall be submitted to the Project Manager for acceptance prior to any subcontract being entered into or any work commencing. No subcontractor may be mobilised or allowed to perform any portion of the Works without the Project Manager’s written acceptance in terms of Clause 26 of the NEC3 ECC.

The Contractor remains fully responsible for:

* The performance of all subcontractors,
* Ensuring subcontractors comply with all contractual obligations,
* Ensuring compliance with Arnot Power Station standards, safety rules and legal requirements,
* Integrating subcontractor activities into the overall programme of works.

All subcontracting arrangements remain the responsibility of the Contractor, and the Contractor shall ensure that all subcontractors comply with the Contract, Arnot Power Station requirements, safety standards, and all legal obligations.

* + 1. **Subcontract Documentation, and Assessment of Subcontract Tenders**

The Contractor may use any suitable and recognised subcontract form, including (but not limited to) NEC, FIDIC, OEM-specific templates, or the Contractor’s own standard subcontract documents.

* Use of NEC subcontract forms is recommended but not compulsory.

All subcontract documentation shall:

* Be consistent with the Contractor’s obligations under this Contract;
* Clearly describe the subcontract scope, responsibilities, safety, quality, programme, pricing, and risk allocations;
* Comply with all Employer, site, legal and statutory requirements.

Before issuing any subcontract enquiry, the Contractor shall submit to the Project Manager for acceptance:

* The proposed subcontract scope;
* The list of proposed tenderers;
* The subcontract conditions to be used.

The Contractor may utilise its internal procurement processes for issuing, receiving and evaluating subcontract tenders, provided the process is:

* Transparent and competitive;
* Technically and commercially robust;
* Aligned with all Employer governance and compliance requirements.

For high-risk or high-value subcontract packages, a joint tender evaluation report between the Contractor and the Project Manager is recommended.

* The Contractor shall obtain Project Manager acceptance of the selected Subcontractor prior to award.

The Contractor shall submit the final Subcontract Agreement (including pricing, scope and terms) to the Project Manager for acceptance prior to signature.

* + 1. **Limitations on subcontracting**

The Contractor shall not subcontract the majority of the Works without prior acceptance by the Project Manager. The Employer may require certain specialised activities to be performed by suitably qualified subcontractors with proven competence and experience.

The Contractor shall not subcontract more than a reasonable and manageable proportion of the Works such that:

* The Contractor maintains full control, coordination and responsibility for delivery;
* Safety, quality, and programme performance are not compromised.

All subcontracting arrangements require Project Manager acceptance prior to award, as stated in Clause

* + 1. **Attendance on subcontractors**

The Contractor shall provide all reasonable attendance services required by its Subcontractors, including but not limited to:

* Access to the Site and work areas;
* Coordination and interface management;
* Provision of shared facilities where applicable (e.g., ablutions, first aid, site induction offices);
* Safety oversight and integration into the Contractor’s site safety management system;
* Integration into the Contractor’s programme and reporting structures.

The Contractor remains fully responsible for:

* Managing all Subcontractors;
* Ensuring compliance with Site rules, safety standards, environmental requirements, and security procedures;
* Ensuring Subcontractors’ work aligns with the overall Works Information requirements.

Any additional, unique, or specialised attendance obligations shall be identified in the relevant subcontract scope and communicated to the Project Manager.

* 1. **Plant and Materials**
     1. **Quality**

Unless stated otherwise in Section 6 (Please refer to the Arnot Solar PV Plant Functional Specification) for all Plant and Materials used by the Contractor are:

* new,
* of good quality,
* free from Defects, and
* suitable for their intended use in the Works.

Where quality requirements are not specifically defined, the Contractor provides Plant and Materials that meet good industry practice and the minimum requirements of SANS 1200A (General).

When correcting a Defect, the Contractor replaces the defective Plant or Materials with new items unless the Project Manager agrees that a repair will achieve the required performance and durability.

The Contractor ensures that replacement materials or repaired components conform to the Technical Specifications and do not reduce performance, safety, or lifespan of the Works.

* + 1. **Plant & Materials provided “free issue” by the *Employer***

No Plant and Materials will be supplied by the *Employer*.

* + 1. ***Contractor*’s procurement of Plant and Materials**

The Contractor procures, orders, imports, transports, stores, protects, and installs all Plant and Materials necessary for Providing the Works. The Contractor is requested to refer to the Arnot Solar PV Plant Functional Specification.

The Contractor follows any constraints stated in the Works Information regarding

* ordering and expediting,
* international freight and customs clearance,
* transport to Site,
* packaging requirements,
* storage conditions,
* coding and identification, and
* handling of critical and long-lead items.

The Contractor ensures that all suppliers and manufacturers issue warranties in favour of the Employer, not only the Contractor, for the required warranty periods specified in Section 6 or the Contract Data.

The Contractor provides vendor data, including manuals, drawings, data sheets, test certificates, maintenance information, and warranty documentation. Vendor data must be submitted before Completion and in the format and number of copies stated in the Works Information.

Imported Plant and Materials comply with all applicable South African statutory requirements, including NRCS certification, SANS approvals, and grid-code compliance where applicable. The Contractor ensures full traceability of Plant and Materials from source to installation and keeps records available for review by the Project Manager.

* + 1. **Spares and consumables**

The Contractor supplies the initial spares and consumables required for the safe and reliable operation of the Works at or immediately after Takeover. The Contractor is requested to refer to the Arnot Solar PV Plant Functional Specification.

These may include, but are not limited to:

* fuses, switches, relays and control equipment components,
* spare SCADA and inverter modules where specified,
* PV module replacement stock (if required by the Employer),
* lubricants, coolants, oils or other consumables relevant to electrical or mechanical plant.

The Contractor provides a Spares List identifying

* item description,
* part numbers,
* quantities,
* supplier/manufacturer details,
* recommended storage conditions, and
* lead times for replenishment.

Spares and consumables supplied by the Contractor become the property of the Employer at Takeover.

The Contractor provides all test consumables required during commissioning (including fuses, labels, and temporary protection items) as part of Providing the Works.

* 1. **Tests and inspections before delivery**

The Contractor performs all tests and inspections required by the Technical Specifications, the Arnot Solar PV Plant Functional Specification, and all applicable standards before delivering Plant and Materials to the Working Areas.

The Supervisor or Others appointed by the Employer may witness or carry out tests and inspections at

* the Contractor’s premises,
* the manufacturer’s premises (local or overseas), or
* any other location stated in the Works Information or the Arnot Solar PV Plant Functional Specification.

Where tests or inspections are required by the Employer or specified in the Functional Specification to be performed locally or overseas, the Contractor

* gives at least 14 days’ advance notice of readiness for inspection,
* provides safe and reasonable access,
* provides required utilities and assistance, and
* makes available all documentation, certificates, drawings, test procedures, and data.

The Contractor does not dispatch Plant or Materials to the Working Areas until

* all required tests and inspections have been successfully completed in accordance with the Technical Specifications and the Functional Specification,
* the Supervisor has confirmed satisfactory results, and
* all certificates and records have been submitted.

Any failed test or inspection constitutes a Defect. The Contractor corrects the Defect and repeats the test or inspection at his own cost.

* 1. **Marking Plant and Materials outside the Working Areas**

Where Plant and Materials are to be paid for before delivery to the Working Areas, the Contractor marks and prepares such items for title transfer in accordance with Core Clauses 70.1 and 71.1, this Works Information, and the Arnot Solar PV Plant Functional Specification.

The Contractor prepares the Equipment, Plant and Materials that are identified for payment and which are outside the Working Areas, for marking by the Supervisor.  
Preparation includes

* staging the items for inspection,
* arranging unobstructed access in accordance with Core Clause 27.2,
* labelling the affected Equipment, Plant and Materials, and
* ensuring all documentation is available for verification.

The Contractor labels the items and promptly notifies the Project Manager that the Supervisor (or the Supervisor’s delegate) is required to mark the Equipment, Plant or Materials for title transfer.

Labels prepared by the Contractor are durable, weather-resistant, clearly readable, and include the following information:

* Marked as for this Contract – For title transfer to Eskom Holdings SOC Limited
* Equipment, Plant or Material item: [Description of the item]
* The Employer: Eskom Holdings SOC Limited
* The Contractor: [Insert Contractor’s name]
* The Supervisor: [Insert Supervisor’s name]
* Contract Title: [Insert title]
* Contract Number: [Insert contract number]
* Conditions of contract: The NEC3 Engineering and Construction Contract, June 2005 (as amended June 2006).  
  Core Clause 70.1 states:  
  *“Whatever title the Contractor has to Plant and Materials which is outside the Working Areas passes to the Employer if the Supervisor has marked it as for this contract.”*
* Supervisor signature Date:

Marking does not relieve the Contractor of responsibility for care of the Plant and Materials, nor does it constitute acceptance, certification, or transfer of risk under the contract. The Contractor provides photographic evidence and an updated Plant and Materials Register to confirm correct marking and identify the location of each item.

Marking requirements in this subsection are read together with any additional identification or traceability requirements stated in the Arnot Solar PV Plant Functional Specification.

* 1. ***Contractor*’s Equipment (including temporary works).**

The Contractor provides and maintains all Contractor’s Equipment necessary for the Works, including temporary works, in accordance with the requirements of the Works Information and the Arnot Solar PV Plant Functional Specification.

For specialised or critical Contractor’s Equipment that may affect progress of the Works—such as heavy lifting equipment, MV testing instruments, string lifting frames, or module-handling devices—the Works Information and the Functional Specification may prescribe

* procurement constraints,
* witness points,
* hold points for assembly, testing, or calibration, and
* delivery inspections.

The Contractor gives the Project Manager at least 14 days’ notice before any witness or hold point. Attendance by the Project Manager does not constitute acceptance and does not transfer risk or liability to the Employer.

Temporary works, including scaffolding, inverter foundations used for construction staging, module-frame supports, and temporary electrical supplies, comply with the Functional Specification, relevant SANS codes, statutory requirements, and the Contractor’s design as stated in Section 3.6.

The Contractor ensures that all Contractor’s Equipment is operated safely, in accordance with manufacturer instructions, and meets the safety requirements stated in the Functional Specification.

* 1. **Cataloguing requirements by the *Contractor***

Cataloguing applies to this Contract. The *Contractor* must comply with:

* Eskom Procurement Instruction Number 1 of 2018, and
* all cataloguing, identification, and asset information requirements stated in the Arnot Solar PV Plant Functional Specification.

The Contractor provides complete cataloguing data for

* all Plant and Materials procured for the Works,
* spares and consumables supplied under Section 4.3.4, and
* major components identified in the Functional Specification as requiring asset registration.

Cataloguing information includes, but is not limited to:

* material descriptions and asset classifications,
* OEM manufacturer and supplier details,
* part numbers and serial numbers,
* technical and performance data,
* warranty information,
* storage and handling requirements, and
* maintenance and operating information defined in the Functional Specification.

Cataloguing submissions must be received and accepted before Completion. Failure to provide cataloguing data constitutes a Defect under the Contract.

1. **Construction**

This section sets out the constraints, facilities, services, responsibilities, and rules that apply to the Contractor while Providing the Works on Site during the construction, installation, testing and commissioning of the Arnot Solar PV Plant. This section does not describe the technical scope of the Works (refer to Section 6 and the Arnot Solar PV Plant Functional Specification).

* 1. **Temporary works, Site services & construction constraints**
     1. ***Employer*’s Site entry and security control, permits, and Site regulations**

The Contractor complies with all Arnot Power Station security protocols, including but not limited to:

* registration of personnel and vehicles,
* issuance of access permits and induction cards,
* tool control requirements,
* baggage and vehicle search procedures.

Access to the Site is subject to valid permits, safety induction, and any station-specific restrictions communicated by the Employer.

The Contractor includes all time and cost impacts associated with security, induction and access control in his Accepted Programme.

* + 1. **Restrictions to access on Site, roads, walkways and barricades**

The Contractor uses only designated access routes, haul roads and lay-down areas as authorised by the Employer. All temporary barricading, signage and demarcation required to protect personnel, Plant and Materials are provided and maintained by the Contractor.

Access to certain operational areas of Arnot Power Station may be restricted at specific times; such restrictions do not constitute compensation events.

* + 1. **People restrictions on Site; hours of work, conduct and records**

Working hours are subject to Arnot Power Station regulations.

The Contractor maintains real-time personnel registers (including Subcontractor staff) and makes these available to the Project Manager or Supervisor at any time. Misconduct, non-compliance with safety rules or unauthorised personnel will result in removal from Site

* + 1. **Health and safety facilities on Site**

The Contractor complies with the Occupational Health and Safety Act, Construction Regulations and all Employer H&S standards. The Employer provides emergency response, fire services and first-aid facilities located at designated Station H&S points. The Contractor provides supplemental first-aid, PPE, safety offices and H&S personnel for the Works.

* + 1. **Environmental controls, fauna & flora, dealing with objects of historical interest**

The Contractor complies with environmental requirements, including waste segregation, spill control, noise and dust mitigation, and protection of fauna and flora. Any historical or archaeological findings are immediately reported to the Supervisor.

Requirements are read together with Section 2.4 and the Arnot Solar PV Plant Functional Specification.

* + 1. **Title to materials from demolition and excavation**

Title to materials arising from demolition, excavation or clearing operations remains with the Employer unless otherwise stated. The Contractor safely stores and returns such materials to the Employer’s designated recovery area.

* + 1. **Cooperating with and obtaining acceptance of Others**

The Contractor cooperates with Others as defined in clause 11.2(10). The Contractor coordinates with Eskom Operations, Safety, ICT, Real Estate, Water Treatment, and Transmission/Distribution departments where interfaces arise. The Contractor obtains all necessary liaison and acceptance from municipal authorities, NERSA, NTCSA, grid connection stakeholders, and landowners where required.

* + 1. **Publicity and progress photographs**

No media statements, drone flights, photography or publicity are permitted without written approval from the Employer. The Contractor provides monthly progress photographs when requested.

* + 1. ***Contractor*’s Equipment**

The Contractor records all Contractor’s Equipment brought onto Site, including ownership and certification details. Specialised lifting equipment, cranes, mobile elevated work platforms and scaffolding require the Supervisor’s acceptance of certification which are brought on to the Arnot Power Station. Noise suppression measures in line with SANS 1200A apply.

The Contractor controls and manages the access of such plant and equipment to the working areas. The Contractor shall comply with the Employers access control processes and requirements which include amongst others control of plant, equipment and spares entering and exciting the Arnot Power Station.

* + 1. **Equipment provided by the *Employer***

The Employer provides no construction equipment. Any equipment temporarily provided (if approved) is used at the Contractor’s risk and returned in the same condition.

* + 1. **Site services and facilities**

The Contractor is to make reference to the Arnot Solar PV Plant Functional Specification. The Contractor provides all reticulation from the tie-in points to his working areas at his cost. The Contractor provides everything else necessary for Providing the Works.

* + 1. **Facilities provided by the *Contractor***

The Contractor is to make reference to the Arnot Solar PV Plant Functional Specification. The Contractor provides construction offices, storage containers, workshops, parking, lay-down areas, and welfare facilities for his workforce, Project Manager and Supervisor where required. All temporary facilities are to be dismantled and removed at Completion. Layout drawings of construction camps and temporary facilities must be submitted for acceptance before installation.

* + 1. **Existing premises, inspection of adjoining properties and checking work of Others**

The Contractor inspects adjoining structures and Site conditions before commencing work. The Contractor inspects the work of Others where interfaces occur and reports discrepancies immediately.

* + 1. **Survey control and setting out of the *works***

The Contractor is to make reference to the Arnot Solar PV Plant Functional Specification. The Employer provides benchmark survey control points as shown on drawings. The Contractor establishes and maintains all additional survey lines required for accurate setting-out.

* + 1. **Excavations and associated water control**

The Contractor provides all dewatering, trench support, shoring and pumping required for safe excavation. Excavations must comply with Construction Regulations and site-specific geotechnical conditions and applicable provisions in the Arnot Solar PV Plant Functional Specification.

* + 1. **Underground services, other existing services, cable and pipe trenches and covers**

The Contractor is to make reference to the Arnot Solar PV Plant Functional Specification. The Contractor identifies and marks all known services before excavation. The Contractor is responsible for locating unknown services using detection equipment. Any damaged services are repaired immediately at the Contractor’s cost and reported to the Supervisor.

* + 1. **Control of noise, dust, water and waste**

The Contractor is to make reference to the Arnot Solar PV Plant Functional Specification. Mitigation measures are implemented to prevent pollution, dust, noise nuisance and uncontrolled water discharge.

* + 1. **Sequences of construction or installation**

The Contractor proposes construction sequencing in the Accepted Programme. Access to Others may require temporary resequencing as directed by the Project Manager.

* + 1. **Giving notice of work to be covered up**

The Contractor gives the Supervisor at least 24 hours’ written notice before covering up any work. No work may be covered until the Supervisor has inspected and accepted it.

* + 1. **Hook ups to existing works**

All tie-ins to operational systems (electrical, communications, drainage) require an approved method statement and a permit-to-work from Arnot Power Station. Shutdown windows will be controlled by the Employer and may not entitle the Contractor to a compensation event.

* 1. **Completion, Testing, Commissioning and Correction of Defects**
     1. **Work to be done by the Completion Date**

On or before the Completion Date the Contractor shall have done everything required to Provide the Works except for the work listed below which may be done after the Completion Date but in any case, before the dates stated. The Completion Date to be on the date that the Operational Acceptance Certificate has been issued as per the Arnot Solar PV Plant Functional Specification.

The Project Manager cannot certify Completion until all the work except that listed below has been done and is also free of Defects which would have, in his opinion, prevented the Employer from using the works and Others from doing their work.

|  |  |  |
| --- | --- | --- |
| **No.** | **Item of work** | **To be completed by** |
| 1. | As built drawings of | Within **30 days** after Completion |
| 2. | Performance testing in operation | As per Section 6 and the Functional Specification |
| 3. | Final O&M documentation | Within **30 days** after Completion |

* + 1. **Use of the *works* before Completion has been certified**

The Employer may use any part of the Works before Completion as provided for in clause 35.2.  
Such use does not constitute take-over when the use is for safety, testing or operational continuity as stated here.

* + 1. **Materials facilities and samples for tests and inspections**

The Contractor provides all samples, test equipment, facilities and services required for tests under Core Clause 40.2. The Employer provides access to designated test areas only

* + 1. **Commissioning**

Commissioning is carried out in accordance with the commissioning procedures for Arnot Solar PV Plant and Arnot Solar PV Plant Functional Specification.

* + 1. **Start-up procedures required to put the *works* into operation**

Start-up is executed by the Contractor under the direction of the Employer’s operations personnel. The Contractor ensures competent staff are available during energisation and grid-integration activities.

* + 1. **Take over procedures**

Take-over occurs at Completion unless stated otherwise in this Works Information. The Contractor provides all required temporary security arrangements, personnel attendance, and the complete set of handover documentation necessary to support the take-over process.

The Contractor shall comply with the requirements of the *Arnot Solar PV Project (EPC) Commissioning Procedure* for all matters relating to commissioning, handover readiness, and sequencing of take-over activities.

Following successful completion of the Works, the Supervisor arranges a Completion Inspection with the Contractor. If the Works satisfy the Completion criteria stated in this Works Information, the Project Manager issues the Completion Certificate (Ref. 240-147212868).

The Works, or any part thereof, are taken over upon the Construction Manager issuing the Take-over Certificate (Ref. 240-147175304) once the plant meets the contractual requirements for take-over. Where commissioning is required, a Take-over Certificate may only be issued when:

* All relevant contractual requirements have been fulfilled;
* The Commissioning Certificate (Ref. 240-147174870) and Safety/Housekeeping Certificate (Ref. 240-147213071) have been issued; and
* The Employer, Project Manager, Supervisor, and Contractor agree that the Works have been constructed in accordance with the Works Information and are ready to be taken over.
  + 1. **Access given by the *Employer* for correction of Defects**

The Employer grants access for Defect correction in accordance with clause 43.4. The Contractor complies with operational restrictions applicable after energisation.

* + 1. **Performance tests after Completion**

The Contractor performs performance and reliability tests as described in Section 6 and the Arnot Solar PV Plant Functional Specification.

* + 1. **Training and technology transfer**

The Contractor provides training on the operation and maintenance of the Solar PV Plant and associated equipment. Training materials, videos, manuals and competency sign-off sheets are included in O&M documentation as detailed in the Arnot Solar PV Plant Functional Specification

* + 1. **Operational maintenance after Completion**

The Employer may require the Contractor to perform operational maintenance activities prior to the Defects Date. Such duties are limited to cleaning, minor adjustments, or scheduled equipment checks as specified in Section 6.

1. **Plant and Materials standards and workmanship**

This section of the Works Information defines the standards, workmanship, and technical requirements for the permanent works to be executed under this contract. All Plant, Materials, workmanship, testing, and installation activities shall comply with the requirements set forth herein, and in the Arnot Solar PV Plant Functional Specification, including all referenced SANS, IEC, ISO, and Eskom specifications.

The Contractor shall ensure that all work is executed by competent personnel, in accordance with good industry practice, statutory and regulatory requirements, and Employer-specific requirements.

* + 1. **Standards and Workmanship**

Plant and materials, workmanship, and testing shall comply with the specifications detailed in this Works Information and the Arnot Solar PV Plant Functional Specification.

All equipment, components, materials, services, and workmanship shall be supplied, designed, manufactured, installed, and tested in accordance with the latest applicable IEC, SANS, International Codes, and Standards listed herein.

* + 1. **Contractor Responsibilities**

The Contractor shall:

* Ensure that appropriate certification and independent testing has been carried out on all proposed materials and products.
* Verify that materials and products are suitable for the intended service conditions.
* Supply only new materials, parts, and components.
* Ensure that all materials and products delivered to site bear the manufacturer’s name, brand name, and any other data necessary to verify compliance with this Works Information and the Employer’s Project-Specific Requirements.
* Follow the manufacturer’s instructions for the handling, installation, and use of materials and products.
* Use the same manufacturer for materials or products of a similar type, ensuring that identical parts or components are fully interchangeable.
* Transport and store materials and components in accordance with the manufacturer’s guidelines.
* Provide suitable packaging to protect all materials and equipment during delivery, storage, and exposure on site. Reusable packaging shall be returned to the supplier. Particular care shall be taken to protect and maintain plant and equipment delivered early.
* Inspect all materials and products upon delivery to site and immediately prior to installation. Any damaged or faulty materials or products shall be replaced by the Contractor.
  1. **Investigation, Survey and Site clearance**

The Contractor carries out all further investigations, surveys, geotechnical verifications and assessments necessary to complete the final design and construction of the Arnot Solar PV Plant.

The Contractor complies with site clearance constraints, including but not limited to:

* Protection of existing Eskom services, access roads and servitudes.
* Management of vegetation, topsoil removal and reinstatement.
* Environmental and heritage requirements as referenced in Section 2.4 of this Works Information.

Where additional investigation is required by the Contractor, the approach and methodology are submitted to the Project Manager for acceptance before execution.

* 1. **Building works**

Where applicable, building works shall comply with:

* Particular specifications issued by the Employer;
* The list of standardised specifications referenced in the Arnot Solar PV Plant Functional Specification; and
* Variations to standardised specifications issued as part of this Works Information.

Where Model Trade Preambles are referenced, terminology is interpreted in accordance with NEC3 principles, and no clauses conflicting with the conditions of contract shall apply.

* 1. **Civil engineering and structural works**

Civil and structural works shall comply with:

* Particular civil engineering specifications provided by the Employer;
* Applicable standardised specifications from SANS 1200, SANS 2000 or updated equivalents; and
* Variations or project-specific requirements included in this Works Information.

Where SANS 1200 specifications are used, the Contractor shall apply the terminology conventions listed in the contract and ensure there are no conflicting provisions. Civil works include, but are not limited to: foundations, equipment plinths, inverter station bases, cable trenches, internal roads, drainage systems, fencing, and structural mounting systems for PV modules.

* 1. **Electrical & mechanical engineering works**

Electrical and mechanical works shall comply with the Employer’s technical specifications and the Arnot Solar PV Plant Functional Specification.

The Contractor ensures compliance with all relevant statutory and regulatory requirements, including but not limited to:

* SANS 10142,
* SANS 61439 series,
* IEC standards applicable to PV modules, inverters, transformers and MV/LV systems,
* Eskom Distribution and Transmission technical standards, where referenced.

All drawings, connection diagrams, protection settings, and equipment data sheets shall be submitted for acceptance in accordance with the Contractor’s design responsibilities.

* 1. **Process control and IT works**

Process control, SCADA, communication and IT systems shall comply with the Employer’s operational requirements and the Arnot Solar PV Functional Specification. The Contractor ensures full integration with the Eskom SCADA network, communication protocols, protection systems and data interfaces. Requirements include:

* Telemetry, metering and remote monitoring systems,
* Cybersecurity compliance per Eskom ICT governance standards,
* Provision of network drawings, protocols and configuration files.

All software, firmware and digital configurations are documented and provided as part of handover documentation.

* 1. **Other [as required]**

The Contractor shall comply with any other discipline-specific specifications included in Annexures to this Works Information or referenced in the Arnot Solar PV Plant Functional Specification.

Where specialist systems or equipment are included (e.g. weather stations, satellite irradiance sensors, fire detection systems, or security systems), the Contractor ensures adherence to all manufacturer, statutory and Employer-specific requirements.

1. **List of drawings**
   1. **Drawings issued by the *Employer***

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

Note: Some drawings may contain both Works Information and Site Information.

|  |  |  |
| --- | --- | --- |
| **Drawing number** | **Revision** | **Title** |
| The Contractor Makes reference to the **Arnot Solar PV Plant Functional Specification** and Appendices for the complete list and details of all relevant drawings. | | |
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1. **Standards and Specifications**

Standards and specifications are as detailed in this Works Information, including the Arnot Solar PV Plant Functional Specification. It is the Contractor’s responsibility to ensure that they are in possession of the latest revisions of all applicable standards, specifications, and referenced documents.

**C3.2 *Contractor*’s Works Information**

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| This section of the Works Information will always be contract specific depending on the nature of the *works*.  It is most likely to be required for design and construct contracts where the tendering contractor will have proposed specifications and schedules for items of Plant and Materials and workmanship, which once accepted by the *Employer* prior to award of contract now become obligations of the *Contractor* per core clause 20.1.  Typical subheadings could be  a) *Contractor*’s design  b) Plant and Materials specifications and schedules  c) Other |

This section could also be compiled as a separate file.

**Part C4: Site Information**

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| **Document Reference** | **Information** | **Number of Pages** |
| For relevant Site Information documentation please refer to the Arnot Solar PV Plant Functional Specification. | | |
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| Total number of pages | | 1 |

1. This total is required by the *Employer* for budgeting purposes only. Actual amounts due will be assessed in terms of the *conditions of contract*. [↑](#footnote-ref-2)
2. Available from Engineering Contract Strategies Tel 011 803 3008, Fax 011 803 3009 or see [www.ecs.co.za](http://www.ecs.co.za) [↑](#footnote-ref-3)