



LIMURU DAIRY FARMERS CO-OPERATIVE SOCIETY LTD.

MAZIWA HOUSE, 4TH FLOOR
P.O. Box 8-00217, LIMURU

Tel: 020-2010611
Cell: 0713-833814

limurudairy@gmail.com
info@limurudairy.co.ke
www.limurudairy.co.ke

TENDER N0: LDFCS 7/2023

**Project: LIMURU DAIRY FARMERS
COOPERATIVE SOCIETY LTD**

Closing Date: 11/08/2023

BIDDING DOCUMENT

**PROJECT NAME: PROPOSED FINANCE, DESIGN, PROCURE,
CONSTRUCT, INSTALL, TEST, COMMISSION, OPERATE
AND MAINTAIN, AND TRAIN RELEVANT STAFF UNDER A
BUILD OWN OPERATE AND TRANSFER (BOOT) A 150 KW
SOLAR GRID TIE SYSTEM (PPA)**

Contents

TENDER NO	1
Tender reference No LDFCS 7/2023.....	7
General	8
Qualification of Bidders.....	11
Eligibility Criteria	11
Section II - Bid Data Sheet (BDS).....	12
1. Introduction.....	12
2. Bidding Documents	12
3. Preparation of Bids	13
5. Award of Contract.....	15
Table of Criteria.....	17
1. Margin of Preference –APPLICABLE 37	17
2. Evaluation 37	17
2.1 Adequacy of Technical Proposal 37	17
2.2 Multiple Contracts – NOT APPLICABLE 37	17
2.3 Alternative Completion Times – NOT APPLICABLE 37	17
2.4 Technical Alternatives – N/A 37	17
2.5 Specialized Subcontractors 37	17
3. Qualification guidelines 38	17
1. Eligibility 38.....	17
2. Historical Contract Non-Performance 38.....	17
3. Financial Situation and Performance 41	17
4. Experience 43	17
5. Personnel 47	17
6. Equipment 47	17
Three stages will be considered;.....	30
Stage 1: MANDATORY REQUIREMENTS.....	30
Stage 2: TECHNICAL EVALUATION CRITERIA.....	31
Stage 3: RECOMMENDATION	32
Letter of Bid 52	33
Form of Bid Security (Bank Guarantee) 54	33
Form of Bid-Securing Declaration 56	33
Technical Proposal Forms 59	33

Forms for Personnel	2	.....	33
Forms for Equipment	4	.....	33
Bidder’s Qualification	5	.....	33
Bidder Information Form	5	.....	33
Form CON – 2: Historical Contract Non-Performance, Pending Litigation and Litigation History		.....	8
			33
Form CCC: Current Contract Commitments / Works in Progress	9	.....	33
Form FIN – 3.1: Financial Situation and Performance	10	.....	33
Form FIN - 3.2: Average Annual Construction Turnover	12	.....	33
Form FIN3.3: Financial Resources	13	.....	33
Form EXP - 4.1: General Construction Experience	14	.....	33
Form EXP - 4.2(a): Specific Construction and Contract Management Experience		.....	1533
Form EXP - 4.2(b): Construction Experience in Key Activities	17	.....	33
Letter of Bid		.....	34
Form of Bid Security (Bank Guarantee)		.....	36
Form of Bid-Securing Declaration		.....	38
Bidder’s Qualification		.....	46
Specifications	23	.....	60
Standard Specifications	23	.....	60
2.1 GENERAL	24	.....	60
SPECIAL SPECIFICATIONS	30	.....	60
ANNEXURE - A	42	.....	60
ANNEXURE – B	44	.....	60
Drawings	47	.....	60
Bills of Quantities	48	.....	60
Preamble	48	.....	60
PRELIMINARIES AND BILLS OF QUANTITIES	50	.....	60
PARTICULAR SPECIFICATIONS OF GRID TIE SOLAR SYSTEM		.....	71
A. Scope of Works		.....	71
B. Specification		.....	71
C. Ordering		.....	71
D. Submission of materials and defective work		.....	71

E. Samples and defective work	71
F. Earthing of PV solar module.	72
QUALIFICATION GUIDELINES	74
Specifications	75
TECHNICAL SPECIFICATION FOR SOLAR POWER EQUIPMENT TO BE REQUIRED	77
PANEL MOUNTING STRUCTURE	77
PV MODULE	78
POWER AND CONTROL CABLES.....	79
Inverters.....	80
Grid-Tied Inverters/ On-Grid Inverters.....	81
GRID TIED HYBRID INVERTER	83
PROTECTIONS AND CONTROL.....	86
INTEGRATION OF PV POWER WITH GRID:.....	86
HARMONICS STANDARD:.....	87
BATTERY BOX.....	87
BATTERY	87
WIRING PVC/GI CHANNEL DUCTS	89
FLEXIBLE PVC PIPE	89
COMBINER BOX	89
JUNCTIONS BOXES OR COMBINERS	89
CIVIL WORKS.....	89
OTHER FEATURES:	90
Technical and interconnection requirements.....	92
Table of Clauses.....	98
A. General 60.....	98
1. Definitions 60.....	98

2.	Interpretation 62.....	98
3.	Language and Law 63.....	98
4.	Project Manager’s Decisions 63.....	98
5.	Delegation 63.....	98
6.	Communications 63.....	98
7.	Subcontracting 63.....	98
8.	Other Contractors 63.....	98
9.	Personnel and Equipment 64.....	98
10.	Employer’s and Contractor’s Risks 64.....	98
11.	Employer’s Risks 64.....	98
12.	Contractor’s Risks 65.....	98
13.	Insurance 65.....	98
14.	Site Data 66.....	98
15.	Contractor to Construct the Works 66.....	98
16.	The Works to Be Completed by the Intended Completion Date 66.....	98
17.	Approval by the Engineer 66.....	98
18.	Safety 66.....	98
19.	Discoveries 66.....	98
20.	Possession of the Site 66.....	98
21.	Access to the Site 67.....	98
22.	Instructions, Inspections and Audits 67.....	98
23.	Appointment of the Adjudicator 67.....	98
24.	Procedure for Disputes 68.....	98
25.	Corrupt and Fraudulent Practices 68.....	98
B. Time Control 68.....		98
26.	Program 68.....	98
27.	Extension of the Intended Completion Date 69.....	98
28.	Acceleration 69.....	98
29.	Delays Ordered by the Project Manager 69.....	98
30.	Management Meetings 70.....	98
31.	Early Warning 70.....	98
C. Quality Control 70.....		98
32.	Identifying Defects 70.....	98
33.	Tests 70.....	98
34.	Correction of Defects 70.....	98
35.	Uncorrected Defects 71.....	98
D. Cost Control 71.....		99
36.	Contract Price 71.....	99
37.	Changes in the Contract Price 71.....	99
38.	Variations 71.....	99
39.	Cash Flow Forecasts 72.....	99

40.	Payment Certificates 72	99
41.	Payments 73	99
42.	Compensation Events 73.....	99
43.	Tax 75	99
44.	Currencies 75	99
45.	Price Adjustment 75.....	99
46.	Retention 76.....	99
47.	Liquidated Damages 76	99
48.	Bonus 76	99
49.	Securities 76.....	99
50.	Day works 77	99
51.	Cost of Repairs 77.....	99
E.	Finishing the Contract 77.....	99
52.	Completion 77.....	99
53.	Taking Over 77	99
54.	Final Account 77.....	99
55.	Operating and Maintenance Manuals 78	99
56.	Termination 79.....	99
57.	Payment upon Termination 80.....	99
58.	Property 80.....	99
59.	Release from Performance 80.....	99
	Corrupt and Fraudulent Practices 81	99
	Contract Agreement 88.....	125
	PERFORMANCE SECURITY (BANK GUARANTEE) 90.....	125
	Letter of Acceptance	126

INVITATION FOR TENDER

Tender reference No LDFCS 7/2023

Tender Name: Proposed Finance, Design, Procure, Construct, Install, Test, Commission, Operate and Maintain, and Train Relevant Staff Under a Build Own Operate and Transfer (Boot) A 150 Kw Solar Grid Tie System (PPA)

- 1.1 The *LIMURU DAIRY FARMERS COOPERATIVE SOCIETY LTD* invites sealed tenders for the **Proposed Finance, Design, Procure, Construct, Install, Test, Commission, Operate and Maintain, And Train Relevant Staff Under a Build Own Operate and Transfer (Boot) A 150 Kw Solar Grid Tie System (PPA)**
- 1.2 The tender document can be viewed and downloaded from the LIMURU DAIRY FARMERS COOPERATIVE SOCIETY LTD- limurufresh.co.ke
- 1.3 Prices quoted should be net inclusive of all taxes, must be in Kenya shillings and shall remain valid for 120days from the closing date of tender.
- 1.4 Completed tender documents are to be enclosed in plain sealed envelopes clearly marked with **TENDER NAME** and **TENDER NUMBER (as it appears in the cover of tender document)** and deposited in the Tender Box at **LIMURU DAIRY FARMERS COOPERATIVE SOCIETY LTD FACTORY OFFICES, MAZIWA HOUSE 3RD FLOOR** or to be addressed to **THE MANAGER, and P.O. BOX** so as to be received on or before 11/08/2023 at 10:00AM
- 1.5 In addition, the tenderer shall submit a copy of the original. Each document should be clearly marked “ORIGINAL” and “COPY”
- 1.6 Quotations will be opened immediately thereafter in the presence of the candidates or their representatives who choose to attend at **Limuru Dairy Offices, Maziwa house 4th floor.**

Section I - Instructions to Bidders

General

- 1. Scope of Bid**
 - 1.1 In connection with the Invitation for Bids specified, the Employer, issues these Bidding Documents for the procurement of the Works as specified in Section VII, Works Requirements.
- 2. Corrupt and Fraudulent Practices**
 - 2.1 The Employer requires compliance with the laws of Kenya in regard to corrupt and fraudulent practices.
- 3. Eligible Bidders**
 - 3.1 A Bidder may be a firm that is a private entity, or a government-owned entity—or any combination of them in the form of a joint venture (JV), under an existing agreement, or with the intent to enter into such an agreement supported by a letter of intent. The joint venture agreement should clearly state the role of each party. All members shall jointly be liable for the execution of the contract in accordance with the contract terms. The JV shall nominate a representative who shall have the authority to conduct all business for and on behalf of any and all the members of the JV during the bidding process.
 - 3.2 A Bidder shall not have a conflict of interest. All Bidders found to have a conflict of interest shall be disqualified. A Bidder may be considered to have a conflict of interest for the purpose of this bidding process, if the Bidder:
 - (a) directly or indirectly controls, is controlled by or is under common control with another Bidder; or
 - (b) receives or has received any direct or indirect subsidy from another Bidder; or
 - (c) has the same legal representative as another Bidder; or
 - (d) has a relationship with another Bidder, directly or through common third parties, that puts it in a position to influence the bid of another Bidder, or influence the decisions of the Employer regarding this bidding process; or
 - (e) participates in more than one bid in this bidding process. Participation by a Bidder in more than one Bid will result in the disqualification of all Bids in which such Bidder is involved. However, this does not limit the inclusion of the same subcontractor in more than one bid; or

- (f) has a close business or family relationship with a professional staff or of the project implementing agency,
- 3.3 A Bidder may have the nationality of any country, A Bidder shall be deemed to have the nationality of a country if the Bidder is constituted, incorporated or registered in and operates in conformity with the provisions of the laws of that country.
- 4. Eligible Materials, Equipment and Services**
- 4.1 The materials, equipment and services to be supplied under the Contract may have their origin in any country subject to the restrictions and Regulations of the Laws of Kenya, and all expenditures under the Contract will not contravene such restrictions. At the Employer’s request, Bidders may be required to provide evidence of the origin of materials, equipment and services.
- 4.2 Bidder is instructed to attach an elaborate technical data sheet explaining the technical specs and operation of each component to be used in the works, attach a work methodology and a detailed work plan.
- 5. Clarification of Bidding Document, Site Visit, Pre-Bid Meeting**
- 5.1 A Bidder requiring any clarification of the Bidding Document shall contact the *Employer* in writing at the *Employer’s* address or raise its inquiries during the pre-bid meeting if provided for. The *Employer* will respond in writing to any request for clarification, provided that such request is received prior to the deadline for submission of bids within a period **specified**. The *Employer* shall forward copies of its response to all Bidders who have acquired the Bidding Documents, including a description of the inquiry but without identifying its source.
- 5.2 Mandatory site visit will be held on
- Date:** 27th July 2023.
- Time:** 1000hrs EAT
- Place:** Limuru Dairy Cooperative Society Milk Processing Plant.
- 5.3 The Bidder is advised to visit and examine the Site of Works and its surroundings and obtain for itself on its own responsibility all information that may be necessary for preparing the bid and entering into a contract for construction of the Works. The costs of visiting the Site shall be at the Bidder’s own expense.
- 5.4 The Bidder and any of its personnel or agents will be granted permission by the *Employer* to enter upon its premises and lands for the purpose of such visit, but only upon the express condition that the Bidder, its personnel, and agents will release and

indemnify the *Employer* and its personnel and agents from and against all liability in respect thereof, and will be responsible for death or personal injury, loss of or damage to property, and any other loss, damage, costs, and expenses incurred as a result of the inspection.

- 6. Amendment of Bidding Document**
- 6.1 At any time prior to the deadline for submission of bids, the *Employer* may amend the Bidding Documents by issuing addenda.
- 6.2 Any addendum issued shall be part of the Bidding Documents and shall be communicated in writing to all who have obtained the Bidding Document from the *Employer* in accordance with ITB.
- 7. Contract document**
- Bidder shall provide a copy of the contract subject to review by the employer.

Preparation of Bids

- 8. Cost of Bidding**
- 8.1 The Bidder shall bear all costs associated with the preparation and submission of its Bid, and the *Employer* shall in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

APPENDIX TO INSTRUCTIONS TO BIDDERS

The following information regarding the particulars of the tender shall complement supplement or amend the provisions of the instructions to bidders. Wherever there is a conflict between the provision of the instructions to bidders and the provisions of the appendix, the provisions of the appendix herein shall prevail over those of the instructions to bidders.

Qualification of Bidders

Eligibility Criteria

The prime bidder shall meet the following requirements:

1. Solar grid tie system

- a) The bidder should be competent Electrical contractor with financial capability to provide a complete grid tie system including but not limited to design, supply, erect, test, commission, maintain and train relevant staff under a Build Own Operate and Transfer (BOOT) contract,
- b) The proposed solar system must be from a manufacturing plant which has A valid ISO 14001 certification for manufacturing the relevant solar modules or a self-attested copy of the same should be submitted with the bid.
- c) The Bidder should have adequate qualified, experienced and certified Engineers with the relevant regulatory authorities (EPRA solar installation certifications) to carry out the job. A self-attested list of such people (with their educational qualification & experience mentioned), available with them, shall be enclosed along with the submission of bids.
- d) The bidder shall submit a list of similar works completed in the last five financial years giving description of work, organization for whom executed, approximate value of contract at the time of award, date of award and date of scheduled completion of work. The above-mentioned completion certificates, or, duly self-attested copies thereof, should be submitted along with the bid documents.

The procuring entity reserves the right to amend the scope of work, accept or reject any or all the offers, in part or in full or cancel/withdraw the invitation for bids without assigning any reasons whatsoever and in such case no bidder / intending bidder shall have any claim arising out of such action.

Bidders who meet the criteria given above are subject to be disqualified, if they have made untrue or false representation in the forms, statements and attachments submitted in proof of the qualification requirements or have a record of poor performance, not properly completing the contract, inordinate delays in completion or financial failure, etc.

Section II - Bid Data Sheet (BDS)

1. Introduction

INSTRUCTIONS TO BIDDERS REFERENCE	PARTICULARS OF APPENDIX TO INSTRUCTIONS TO BIDDERS
ITB 1.1	The tender Number of The Invitation for Bid Is: LDFCS/7/2023 The Employer Is: Limuru Dairy Farmers Corporative Society
ITB 1.2	The name of the bidding process is: National Competitive Bidding (NCB) The bid name: Proposed Finance, Design, Procure, Construct, Install, Test, Commission, Operate, Maintain, And Train Relevant Staff Under a Build Own Operate and Transfer (BOOT) A 150 Kw Solar Grid Tie System (PPA)
ITB 1.3	The Borrower is: N/A
ITB 1.4	Proposed Finance, Design, Procure, Construct, Install, Test, Commission, Operate and Maintain, And Train Relevant Staff Under a Build Own Operate and Transfer (BOOT) A 150 Kw Solar Grid Tie System (PPA)
ITB 1.5	Financing Agreement Option: PPA
ITB 1.6	Maximum number of members in the JV shall be: NIL

2. Bidding Documents

ITB 2.1	For clarification purposes only, the Employer's address is: Attention: Limuru dairy farmers corporative society
----------------	--

	<p>Street Address: Limuru dairy farmers corporative society Offices P.O.BOX 8 -00217</p> <p>Town: LIMURU</p> <p>Country: Kenya</p> <p>Electronic mail address: limurudairy@gmail.com</p> <p>Requests for clarification should be received by the Employer no later than: 7 days before Bid Submission Date.</p>
ITB 2.2	Web page: www.limurufresh.co.ke contact
ITB 2.3	<p>A Pre-tender site visit is Mandatory. Bidders will be required to sign an attendance register.</p> <p>The meeting point will be at Limuru Dairy farmers Cooperative Society Ltd. Milk processing plant at the following date, time and place:</p> <p>Date: 27th July 2023</p> <p>Time: 10:00 AM</p> <p>Place: Limuru dairy processing plant.</p>

3. Preparation of Bids

ITB 3.1	<p>The language of the bid is: English</p> <p>All correspondence exchange shall be in English language.</p>
ITB 3.2	The following schedules shall be submitted with the bid: AS PROVIDED IN THE BID DOCUMENT
ITB 3.3	The Bidder shall submit with its bid the following additional documents: AS PROVIDED IN THE BID DOCUMENT
ITB 3.4	Alternative bids shall not be permitted.
ITB 3.5	Alternative times for completion shall not be permitted.
ITB 3.6	Alternative technical solutions shall not be permitted for the following parts of the Works.

ITB 3.7	The prices quoted by the Bidder shall not be subject to adjustment during the performance of the Contract.
ITB 3.8	The prices shall be quoted by the bidder in: Kenya Shillings
ITB 3.9	The bid validity period shall be: 28 days.
ITB 3.10	The bid price shall be adjusted by the following factor(s): NIL
ITB 3.11	A Bid Security shall be required in the form of construction security in the amount of 2% of the total project sum and shall be drawn from a recognized Insurance firm or bank.
ITB 3.12	Other types of acceptable securities: None
ITB 3.13	In addition to the original of the bid, the number of copies is: One (1No.) Copies
ITB 3.14	The written confirmation of authorization to sign on behalf of the Bidder shall consist of: [Power of attorney signed by legally authorized representatives of the firm. Sworn statement by authorized representative(s) of the firm confirming that they are dully authorized to legally represent the firm. (Power of attorney and sworn statement must be from the commissioner of oaths dully stamped and signed)

4. Submission and Opening of Bids

ITB 4.0	Bidders shall not have the option of submitting their bids electronically.
ITB 4.1	<p>Completed tender documents in plain sealed envelopes clearly marked with the relevant Tender Number should be dropped at the tender box at: Limuru dairy farmers corporative society offices addressed to:</p> <p>The Manager, Limuru dairy farmers corporative society Offices P.O.BOX 8 -00217 Limuru</p> <p>To reach the above mentioned on/before 11th august 2023 at 10:00 AM,</p>
ITB 4.2	<p>The bid opening shall take place at: Street Address LIMURU DAIRY FARMERS CORPORATIVE SOCIETY OFFICES</p> <p>Town: Limuru Country: Kenya Date: 11th august 2023 Time: 10:00 A.M.</p>
ITB 4.3	The Letter of Bid and Priced Bill of Quantities shall be initialed by tender opening committee.

5. Award of Contract

ITB 5.1	Negotiations are generally not permitted but if due Cause exists negotiations may be permitted only with the supplier that presented the lowest -priced, substantially compliant offer.
----------------	---

Section III - Evaluation and Qualification Criteria

This section contains all the criteria that the Employer shall use to evaluate bids and qualify Bidders if the bidding was not preceded by a prequalification exercise and post-qualification is applied, no other methods, criteria and factors shall be used. The Bidder shall provide all the information requested in the forms included in Section 4 (Bidding Forms).

Wherever a Bidder is required to state a monetary amount, Bidders should indicate the USD equivalent using the rate of exchange determined as follows:

- For construction turnover or financial data required for each year - Exchange rate prevailing on the last day of the respective calendar year (in which the amounts for that year is to be converted) was originally established.
- Value of single contract - Exchange rate prevailing on the date of the contract.

Exchange rates shall be taken from the publicly available source identified in the ITB 3.8 Any error in determining the exchange rates in the Bid may be corrected by the Employer

Table of Criteria

1. Margin of Preference –APPLICABLE	18
2. Evaluation.....	18
2.1 Adequacy of Technical Proposal	18
2.2 Multiple Contracts – NOT APPLICABLE.....	18
2.3 Alternative Completion Times – NOT APPLICABLE	18
2.4 Technical Alternatives – N/A	18
2.5 Specialized Subcontractors	18
3. Qualification guidelines	19
1. Eligibility	19
2. Historical Contract Non-Performance	19
3. Financial Situation and Performance	22
4. Experience.....	25
5 Personnel	74
6. Equipment.....	74

1. Margin of Preference –APPLICABLE**2. Evaluation**

the following criteria shall apply:

2.1 Adequacy of Technical Proposal

Evaluation of the Bidder's Technical Proposal will include an assessment of the Bidder's technical capacity to mobilize key equipment and personnel for the contract consistent with its proposal regarding work methods, scheduling, and material sourcing in sufficient detail and fully in accordance with the requirements stipulated in Section VII (Works Requirements).

2.2 Multiple Contracts – NOT APPLICABLE**2.3 Alternative Completion Times – NOT APPLICABLE****2.4 Technical Alternatives – N/A****2.5 Specialized Subcontractors**

Only the specific experience of sub-contractors for specialized works permitted by the Employer will be considered. The general experience and financial resources of the specialized sub-contractors shall not be added to those of the Bidder for purposes of qualification of the Bidder.

The specialized sub-contractors proposed shall be fully qualified for their work proposed, and meet the following criteria:

3. Qualification guidelines

QUALIFICATION GUIDELINES		Compliance Requirements					Documentation
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All Parties Combined	Each Member	One Member	
1. Eligibility							
1.1	Nationality	Nationality in accordance with ITB 3.3	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Forms ELI – 1.1 and 1.2, with attachments
1.2	Conflict of Interest	No conflicts of interest in accordance with ITB 3.2	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Letter of Bid
1.3	Government Owned Entity	Meets conditions of ITB 3.1	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Forms ELI – 1.1 and 1.2, with attachments
2. Historical Contract Non-Performance							
2.1	History of Non-Performing Contracts	Non-performance of a contract ¹ did not occur as a result of contractor default since 1st January 2015	Must meet requirement ¹²	Must meet requirements	Must meet requirement ²	N/A	Form CON-2

¹ Nonperformance, as decided by the Employer, shall include all contracts where (a) nonperformance was not challenged by the contractor, including through referral to the dispute resolution mechanism under the respective contract, and (b) contracts that were so challenged but fully settled against the contractor. Nonperformance shall not include contracts where Employers decision was overruled by the dispute resolution mechanism. Non performance must be based on all information on fully settled disputes or litigation, i.e. dispute or litigation that has been resolved in accordance with the dispute resolution mechanism under the respective contract and where all appeal instances available to the Bidder have been exhausted.

² This requirement also applies to contracts executed by the Bidder as JV member.

QUALIFICATION GUIDELINES		Compliance Requirements					Documentation
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All Parties Combined	Each Member	One Member	
2.2	Suspension Based on Execution of Bid Securing Declaration by the Employer or withdrawal of the Bid within Bid validity	Not under suspension based on execution of a Bid Securing Declaration pursuant to ITB 3.11 or withdrawal of the Bid pursuant ITB 19.9.	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Bid Submission Form
2.3	Pending Litigation	Bidder's financial position and prospective long term profitability sound according to criteria established in 3.1 below and assuming that all pending litigation will be resolved against	Must meet requirement	N/A	Must meet requirement	N/A	Form CON – 2

QUALIFICATION GUIDELINES		Compliance Requirements				Documentation	
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All Parties Combined	Each Member	One Member	
2.4	Litigation History	No consistent history of court/arbitral award decisions against the Bidder ³ since 1st January 2015	Must meet requirement	Must meet requirement	Must meet requirement	N/A	Form CON – 2

³ The Bidder shall provide accurate information on the letter of Bid about any litigation or arbitration resulting from contracts completed or ongoing under its execution over the last five years. A consistent history of court/arbitral awards against the Bidder or any member of a joint venture may result in disqualifying the Bidder.

QUALIFICATION GUIDELINES			Compliance Requirements				Documentation
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All Parties Combined	Each Member	One Member	
3. Financial Situation and Performance							
3.1	Financial Capabilities	(i) The Bidder shall demonstrate that it has access to, or has available, liquid assets, unencumbered real assets, lines of credit, and other financial means (independent of any contractual advance payment) sufficient to meet the construction cash flow requirements estimated as Kshs 5 million for months without payment for the subject contract(s) net of the Bidders other commitments (ii) The Bidders shall also demonstrate, to the satisfaction of the Employer, that it has adequate sources of finance to meet the cash flow requirements on works currently in	Must meet requirement	Must meet Requirement	N/A	N/A	Form FIN – 3.1, with attachments
			Must meet requirement	Must meet requirement	N/A	N/A	

QUALIFICATION GUIDELINES		Compliance Requirements					Documentation
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All Parties Combined	Each Member	One Member	
		progress and for future contract commitments. (iii) The audited balance sheets or, if not required by the laws of the Bidder's country, other financial statements acceptable to the Employer, for the last one (1) year shall be submitted and must demonstrate the current soundness of the Bidder's financial position and indicate its prospective long-term profitability.	Must meet requirement	N/A	Must meet requirement	N/A	
3.2	Average Annual Construction Turnover	Minimum average annual construction turnover of Kenya Shillings 100 Million calculated as total certified payments received for contracts in progress and/or completed within the last two years, divided by	Must meet requirement	Must meet requirement	Must meet _____%, _____ of the requirement	Must meet _____%, _____ of the requirement	Form FIN – 3.2

QUALIFICATION GUIDELINES		Compliance Requirements				Documentation	
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All Parties Combined	Each Member	One Member	
		<u>2</u> years					

QUALIFICATION GUIDELINES		Compliance Requirements					Documentation
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All Parties Combined	Each Member	One Member	
4. Experience							
4.1(a)	Registration	Registered with NCA category 5 and above with the current registration license. Must have the current single business permit and must be tax compliant	Must meet requirement		Must meet requirement		
4.1 (b)	General Construction Experience	Experience under construction contracts in the role of prime contractor, JV member, sub-contractor, or management contractor for at least the last 3 years, starting 1st January 2015 .	Must meet requirement	N/A	Must meet requirement	N/A	Form EXP – 4.1
4.2 (a)	Specific Construction & Contract	(i) A minimum number of similar ⁴	Must meet requirement	Must meet requirement ⁷	N/A	N/A	Form EXP 4.2(a)

⁴ The similarity shall be based on the physical size, complexity, methods/technology and/or other characteristics described in Section VII, Work’s Requirements. Summation of number of small value contracts (less than the value specified under requirement) to meet the overall requirement will be accepted.

⁷ In the case of JV, the value of contracts completed by its members shall not be aggregated to determine whether the requirement of the minimum value of a single contract has been met. Instead, each contract performed by each member shall satisfy the minimum value of a single contract as required for single entity. In determining whether the JV meets the requirement of total number of contracts, only the number of contracts completed by all members each of value equal or more than the minimum value required shall be aggregated.

QUALIFICATION GUIDELINES		Compliance Requirements				Documentation	
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All Parties Combined	Each Member	One Member	
	Management Experience	contracts specified below that have been satisfactorily and substantially ⁵ completed as a prime contractor, joint venture member ⁶ , management contractor or sub-contractor ⁶ between 1st January [2015] and application submission deadline: (i) 1 contracts, each of minimum value Kshs 100 million [In case the Works are to be bid as individual contracts under a slice and package (multiple contract) procedure, the minimum number of contracts required for purposes of evaluating					

⁵ Substantial completion shall be based on 80% or more works completed under the contract.

⁶ For contracts under which the Bidder participated as a joint venture member or sub-contractor, only the Bidder’s share, by value, shall be considered to meet this requirement.

QUALIFICATION GUIDELINES		Compliance Requirements					Documentation
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All Parties Combined	Each Member	One Member	
		qualification shall be selected from the options specified in sct III]					
		[Add the following if specialized sub-contractor is permitted and describe nature and characteristics of specialized works:] “(ii) For the following specialized works, the Employer permits specialized sub-contractors as per ITB 34.3”	“Must meet requirement for one contract (Requirement can be met through a Specialized Sub-contractor)”	Must meet requirement	N/A	“Must meet requirement (Requirement can be met through a Specialized Sub-contractor)”	
4.2 (b)		For the above and any other contracts completed and under implementation as prime contractor, joint venture member, management	Must meet requirements	Must meet requirements	N/A	Must meet the following requirements for the key activities listed below ¹¹ [list key activities and the corresponding	Form EXP – 4.2 (b)

¹¹ Requirement can be met through a Specialized Sub-contractor

QUALIFICATION GUIDELINES		Compliance Requirements				Documentation	
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All Parties Combined	Each Member	One Member	
		contractor or sub-contractor ⁸ on or after the first day of the calendar year during the period stipulated in 4.2 (a) above, a minimum construction experience in the following key activities successfully completed ⁹ : [list activities indicating volume, number or rate of production as applicable] ¹⁰				minimum requirements]	

⁸ For contracts under which the Bidder participated as a joint venture member or sub-contractor, only the Bidder’s share shall be counted to meet this requirement.

⁹ Volume, number or rate of production of any key activity can be demonstrated in one or more contracts combined if executed during same time period. The rate of production shall be the annual production rate for the key construction activity (or activities).

¹⁰ The minimum experience requirement for multiple contracts will be the sum of the minimum requirements for respective individual contracts.

4. Personnel

The Bidder must demonstrate that it will have the personnel for the key positions that meet the following requirements:

[Specify requirements for each lot as applicable]

No.	Position	Total Work Similar Experience (years)	In Similar Works Experience (years)
1	Site Agent (Bachelor of Science, Electrical Eng. Registrable/HND in Electrical Engineering)	5	2
2	Deputy Site Agent (Diploma, Electrical Eng.)	3	1
3	Site Foremen (Diploma in Electrical Engineering)	2	1

The Bidder shall provide details of the proposed personnel and their experience records in the relevant Forms included in Section IV, Bidding Forms.

5. Equipment

The Bidder must demonstrate that they will have access to the key Contractor's equipment necessary to complete to standards all the works involved.

The Bidder shall provide further details of proposed items of equipment using the relevant Form in Section IV.

6. Evaluation Assessment

These guidelines will be used in awarding marks to bidders but subject to meeting all the conditions of Section III.

EVALUATION CRITERIA

Three stages will be considered;

Stage 1: MANDATORY REQUIREMENTS

No.	Requirement	Responsive Or Non-Responsive
1	Attach a copy of KRA PIN certificate (confirmable)	
2	Attach a copy of valid tax compliance certificate (confirmable)	
3	Attach a copy of certificate of incorporation/ certificate of business name registration	
4	Attach a copy of current CR12/ 13 for the last 6 months	
5	Attach valid single business permit/trading license	
6	Valid NCA Registration certificate (NCA 5,4,3,2, and 1 for Electrical Works) (confirmable)	
7	Valid EPRA Registration Certificate minimum C2 for the firm (confirmable)	
8	At least one staff member with valid ERC/EPRA license Minimum T1 and C2. (confirmable)	
9	Valid Registration Certificate with EPRA as a Solar PV Contractor. (confirmable)	
10	Attach current NSSF and NHIF certificate	
11	Attach a copy of litigation history of the company authored by commissioner of oaths	
12	Attach duly signed and stamped pre-tender site visit certificate by the company Engineer	
13	Duly filled and signed form of tender	
14	Attach valid DOSH certification evidence for ongoing or complete projects (payment receipts will be admissible)	
15	One (1) ORIGINAL and a COPY of the original properly bound document and MUST be paginated/pages be sequentially numbered. In case of any conflict between original and copy, original will prevail.	

Please note the following;

- **Items 3, 4, 5,10, and 15 above must be certified by a commissioner of oaths**

Stage 2: TECHNICAL EVALUATION CRITERIA

SECTION 2A: TECHNICAL EVALUATION ELECTRICAL WORKS (85 MARKS)			
1	Experience of key personnel	(22)	
A	Site Agent. <i>Attach copies of the academic certificates. Letter from employer / commissioner of oaths showing proof of the years experienced</i> (Bachelor of Science, Electrical Eng. Registrable/HND in Electrical Engineering) with four (4) years of experience. (1 mark for each year of experience)	6	
B	Deputy Site Agent. <i>Attach copies of the academic certificates. Letter from employer / commissioner of oaths showing proof of the years experienced</i> (Diploma, Electrical Engineering.) with 2 years of experience (1 mark for each year of experience)	3	
C	Site Foremen <i>Attach copies of the academic certificates. Letter from employer / commissioner of oaths showing proof of the years experienced</i> (Diploma in Electrical Engineering) with 2 years of experience. (1 mark for each year of experience)	3	
D	At least one staff member with ERC license Minimum T1 and C2 . <i>Attach professional certificates</i> This is mandatory. Failure to satisfy renders your bid non-responsive	10	
2	The experience of the firm	(24)	
A	Attach a detailed company profile	4	
B	Details of solar works of similar magnitude and complexity within the country with completion certificates of work Successfully undertaken. Each project completed successfully 2 marks <i>Attach 10 completion certificates.</i>	20	
3	Key Tools and Equipment	(29)	
	Indicate a comprehensive list of the tools and equipment that <i>Attach proof of ownership of each or lease and serial numbers.</i>	29	
4.	Execution of works- Method statement on how the Tenderer Intends to execute the works. <i>Attach a detailed work program with a letter head and timelines duly signed and stamped by an authorized person.</i>	5	
5	Preference of Works	(5)	
	Local Preference (For bidders with valid Business Permit). <i>Attach a valid business permit Business Permit</i> (5 marks)	5	
	TOTAL B	85	
Financial evaluation			
6.	Attach purchase agreements for a PPA clearly indicating cost per KW unit, payback period and possible monetary savings.	15	
7.	Warranty	0	
	TOTAL B	15	
	TOTAL (A+B)	100	

- **Only bidders who score a minimum of 75% of the technical score (A+B) above shall be evaluated in stage 3.**

Stage 3: RECOMMENDATION

To be considered for award the lowest responsive evaluated bidder shall be the one who satisfies section 86 sub section 1 item (a) of the Public Procurement and Assets Disposal Act 2015 which states:

86. (1) The successful tender shall be the one who meets any one of the following as specified in the tender document

(a) the tender with the lowest evaluated price;

This must be read in the full understanding of section 79 sub section 1 which states:

79. (1) A tender is responsive if it conforms to all the eligibility and other mandatory requirements in the tender documents.

NB: The procuring entity will conduct due diligence to verify information submitted by the bidders. Any form of mis-information shall be interpreted as conjecture and will lead to automatic non responsiveness of the bid.

Section IV - Bidding Forms

Table of Forms

Letter of Bid	12
Form of Bid Security (Bank Guarantee)	36
Form of Bid-Securing Declaration	38
Technical Proposal Forms	42
Forms for Personnel.....	Error! Bookmark not defined.
Forms for Equipment	45
Bidder’s Qualification	46
Bidder Information Form.....	46
Form CON – 2: Historical Contract Non-Performance, Pending Litigation and Litigation History	48
Form CCC: Current Contract Commitments / Works in Progress	49
Form FIN – 3.1: Financial Situation and Performance.....	50
Form FIN - 3.2: Average Annual Construction Turnover	52
Form FIN3.3: Financial Resources	53
Form EXP - 4.1: General Construction Experience	54
Form EXP - 4.2(a): Specific Construction and Contract Management Experience	55
Form EXP - 4.2(b): Construction Experience in Key Activities	57

Letter of Bid

Date:

Invitation for Bid No.:

To: **Project Manager,**

- (a) We have examined and have no reservations to the Bidding Documents,
- (b) We meet the eligibility requirements and have no conflict of interest.
- e) We offer to execute in conformity with the Bidding Documents the following Works **Proposed Finance, Design, Procure, Construct, Install, Test, Commission, Operate and Maintain, And Train Relevant Staff Under a Build Own Operate and Transfer (Boot) A 150 Kw Solar Grid Tie System (PPA)**

The total price of our Bid, excluding any discounts offered in item (e) below per kilowatt unit according to the PPA agreement is:

Kshs.....
 ... (Kenya shillings..... and
 contract period to Build, Own, Operate and Transfer (BOOT) that is
 Years

- (c) The discounts offered and the methodology for their application are:
 - (i) The discounts offered are:
 - (ii) The exact method of calculations to determine the net price after application of discounts is shown below:
- (d) Our bid shall be valid for a period of days from the date fixed for the bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (e) If our bid is accepted, we commit to obtain a performance security in accordance with the Bidding Documents;

Name of Recipient	Address	Reason	Amount
-----	-----	-----	-----
-----	-----	-----	-----

(If none has been paid or is to be paid, indicate “none.”)

- (f) We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive.
- (g) We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in any type of fraudulent and corruption

Name of the Bidder.....

Name of the person duly authorized to sign the Bid on behalf of the Bidder.....

Title of the person signing the Bid

Signature of the person named above

Date signed **day of** **month, year**

Form of Bid Security (Bank Guarantee)

[Bank’s Name, and address of issuing Bank or Swift Identifier Code]

Beneficiary:

Limuru dairy farmers corporative society Offices

P.O.BOX 8 -00217

Limuru

Country: **Kenya**

Invitation for Bids No:.....

Date:

BID GUARANTEE No.:

Guarantor:

We have been informed that (name of the Bidder) hereinafter called "the Applicant") has submitted or will submit to the Beneficiary its bid (hereinafter called "the Bid") for the execution of **Proposed Finance, Design, Procure, Construct, Install, Test, Commission, Operate and Maintain, And Train Relevant Staff Under a Build Own Operate and Transfer (Boot) A 150 Kw Solar Grid Tie System (PPA)**

areas under Invitation for Bids No. (“the IFB”).

Furthermore, we understand that, according to the Beneficiary’s conditions, bids must be supported by a bid guarantee.

At the request of the Applicant, we, as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of **Kshs.....(amount in numbers) [Kenya Shillings.....(amount in words)]** upon receipt by us of the Beneficiary’s complying supported by the Beneficiary’s statement, whether in the demand itself or a separate signed document accompanying or identifying the demand, stating either that the Applicant:

- (a) has withdrawn its Bid during the period of bid validity specified by the Applicant in the Letter of Bid, or any extension thereto provided by the Applicant; or
- (b) having been notified of the acceptance of its Bid by the Beneficiary during the period of bid validity, (i) fails to execute the Contract Agreement or (ii) fails to furnish the performance security, in accordance with the Instructions to Bidders (“ITB”) of the Beneficiary’s bidding document.

This guarantee will expire: (a) if the Applicant is the successful Bidder, upon our receipt of copies of the contract agreement signed by the Applicant and the performance security

issued to the Beneficiary upon the instruction of the Applicant; and (b) if the Applicant is not the successful Bidder, upon the earlier of (i) our receipt of a copy of the Beneficiary's notification to the Applicant of the results of the bidding process; or (ii) twenty-eight days after the Validity Period, which date shall be established by presentation to us of copies of the Letter of Bid and any extension(s) thereto, accompanied by the bidding document; or (c) three years after the date of issue of this guarantee.

Consequently, any demand for payment under this guarantee must be received by us at the office indicated above on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 Revision, ICC Publication No. 758.

[signature(s)]

Form of Bid-Securing Declaration

Date:

Bid No.:

Alternative No.:

To: **Limuru dairy farmers corporative society**

Street Address: **Limuru dairy farmers corporative society Offices**

P.O.BOX 8 -00217

Limuru

We, the undersigned, declare that:

We understand that, according to your conditions, bids must be supported by a Bid-Securing Declaration.

We accept that we will automatically be suspended from being eligible for bidding in any contract with the entity that invited Bids for the period of time ofstarting on, if we are in breach of our obligation(s) under the bid conditions, because we:

- (a) have withdrawn our Bid during the period of bid validity specified in the Letter of Bid; or
- (b) having been notified of the acceptance of our Bid by the Employer during the period of bid validity, (i) fail or refuse to execute the Contract, if required, or (ii) fail or refuse to furnish the Performance Security, in accordance with the ITB.

We understand this Bid-Securing Declaration shall expire if we are not the successful Bidder, upon the earlier of (i) our receipt of your notification to us of the name of the successful Bidder; or (ii) twenty-eight days after the expiration of our Bid.

Name of the Bidder-----

-

Name of the person duly authorized to sign the Bid on behalf of the Bidder-----

--

Title of the person signing the Bid -----

Signature of the person named above-----

Date signed

SCHEDULE 3: CERTIFICATE OF BIDDER’S VISIT TO SITE

This is to certify that

[Name/s].....

.....
...

Being the authorized representative/Agent of [Name of bidder]

.....
.....
...

participated in the organized inspection visit of the site of the works for the **Proposed Finance, Design, Procure, Construct, Install, Test, Commission, Operate and Maintain, And Train Relevant Staff Under a Build Own Operate and Transfer (Boot) A 150 Kw Solar Grid Tie System (PPA)**

held on.....day of.....20.....

Signed.....
(Employer’s Representative)

.....
.....
(Name of Employer’s Representative) (Designation)

NOTE: This form is to be completed at the time of the organized site visit.

8.1 Form ELI -1.1: CONFIDENTIAL BUSINESS QUESTIONNAIRE FORM

You are requested to give the particulars indicated in Part 1 and either Part 2(a), 2(b) or 2 (c) whichever applied to your type of business You are advised that it is a serious offence to give false information on this form

	<p>Part 2 (a) – Sole Proprietor</p>																											
	<p>Your name in full Age</p> <p>Nationality Country of origin</p> <ul style="list-style-type: none"> • Citizenship details <p>.....</p>																											
	<p><i>Part 1 – General:</i></p> <p>Business Name</p> <p>Location of business premises. Plot No.....</p> <p>Street/Road Postal Address</p> <p>Tel No. Fax</p> <p>..... E mail Nature of Business</p> <p>Registration Certificate No. Maximum value</p>																											
	<p>...</p> <p>.....</p> <p><input type="checkbox"/></p>																											
	<p>Part 2 (b) Partnership</p>																											
	<p>Given details of partners as follows:</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%; text-align: left;">Name</th> <th style="width: 30%; text-align: left;">Nationality</th> <th style="width: 40%; text-align: left;">Citizenship Details</th> </tr> </thead> <tbody> <tr> <td style="padding-left: 20px;">Shares 1.</td> <td></td> <td></td> </tr> <tr> <td>.....</td> <td></td> <td></td> </tr> <tr> <td>...</td> <td></td> <td></td> </tr> <tr> <td>2.</td> <td></td> <td></td> </tr> <tr> <td>3.</td> <td></td> <td></td> </tr> <tr> <td>4.</td> <td></td> <td></td> </tr> <tr> <td>.....</td> <td></td> <td></td> </tr> <tr> <td>..</td> <td></td> <td></td> </tr> </tbody> </table>	Name	Nationality	Citizenship Details	Shares 1.					2.			3.			4.		
Name	Nationality	Citizenship Details																										
Shares 1.																												
.....																												
...																												
2.																												
3.																												
4.																												
.....																												
..																												

Part 2 (c) – Registered Company																									
	<p>Private or Public</p> <p>..... State the</p> <p>nominal and issued capital of company-</p> <p style="padding-left: 40px;">Nominal Kshs.</p> <p style="padding-left: 80px;">..... Issued</p> <p style="padding-left: 120px;">Kshs.....</p> <p style="padding-left: 40px;">...</p> <p>Given details of all directors as follows</p> <table style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 30%; text-align: center;">Name</th> <th style="width: 30%; text-align: center;">Nationality Shares</th> <th style="width: 40%; text-align: center;">Citizenship Details</th> </tr> </thead> <tbody> <tr> <td>1.....</td> <td></td> <td></td> </tr> <tr> <td>.....</td> <td></td> <td></td> </tr> <tr> <td>2.....</td> <td></td> <td></td> </tr> <tr> <td>.....</td> <td></td> <td></td> </tr> <tr> <td>3.....</td> <td></td> <td></td> </tr> <tr> <td>4.....</td> <td></td> <td></td> </tr> <tr> <td>5.....</td> <td></td> <td></td> </tr> </tbody> </table>	Name	Nationality Shares	Citizenship Details	1.....					2.....					3.....			4.....			5.....		
Name	Nationality Shares	Citizenship Details																							
1.....																									
.....																									
2.....																									
.....																									
3.....																									
4.....																									
5.....																									
Date	Signature of Candidate																								

If a Kenya Citizen, indicate under “Citizenship Details” whether by Birth, Naturalization or registration.

Technical Proposal

Technical Proposal Forms

Personnel

Equipment

Site Organization

Method Statement

Mobilization Schedule

Construction Schedule

Others

Form PER – 1: Proposed Personnel

Bidders should provide the names of suitably qualified personnel to meet the specified requirements for each of the positions listed in Section III (Evaluation and Qualification Criteria). The data on their experience should be supplied using the Form below for each candidate.

1.	Title of position
	Name
2.	Title of position
	Name
3.	Title of position
	Name
4.	Title of position
	Name
5.	Title of position
	Name
6.	Title of position
	Name
etc.	Title of position
	Name

Forms for Equipment

The Bidder shall provide adequate information to demonstrate clearly that it has the capability to meet the requirements for the key equipment listed in Section III (Evaluation and Qualification Criteria). A separate Form shall be prepared for each item of equipment listed, or for alternative equipment proposed by the Bidder. The Bidder shall provide all the information requested in the format below, to the extent possible. Fields with asterisk (*) shall be used for evaluation.

Type of Equipment*	
Equipment Information	Name of manufacturer,
	Capacity*
	Model and power rating
	Year of manufacture*
Current Status	Current location
	Details of current commitments
Source	Indicate source of the equipment <input type="checkbox"/> Owned <input type="checkbox"/> Rented <input type="checkbox"/> Leased <input type="checkbox"/> Specially manufactured

The following information shall be provided only for equipment not owned by the Bidder.

Owner	Name of owner	
	Address of owner	
	Telephone	Contact name and title
	Fax	Telex
Agreements	Details of rental / lease / manufacture agreements specific to the project	

Bidder's Qualification

To establish its qualifications to perform the contract (**Proposed Finance, Design, Procure, Construct, Install, Test, Commission, Operate and Maintain, And Train Relevant Staff Under a Build Own Operate and Transfer (BOOT) A 150 Kw Solar Grid Tie System (PPA)**) in accordance with Section III (Evaluation and Qualification Criteria) the Bidder shall provide the information requested in the corresponding Information Sheets included hereunder

Bidder Information Form

Date: _____

Bidder's name
In case of Joint Venture (JV), name of each member:
Bidder's actual or intended country of registration: [indicate country of Constitution]
Bidder's actual or intended year of incorporation:
Bidder's legal address [in country of registration]:
Bidder's authorized representative information Name: _____ Address: _____ Telephone/Fax numbers: _____ E-mail address: _____
<p>1. Attached are copies of original documents of</p> <p><input type="checkbox"/> Articles of Incorporation (or equivalent documents of constitution or association), and/or documents of registration of the legal entity named above.</p> <p><input type="checkbox"/> In case of JV, letter of intent to form JV or JV agreement.</p> <p><input type="checkbox"/> In case of Government-owned enterprise or institution documents establishing:</p> <ul style="list-style-type: none"> • Legal and financial autonomy • Operation under commercial law • Establishing that the Bidder is not dependent agency of the Employer <p>2. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.</p>

8.2 Form ELI -1.2: Information Form for JV Bidders

(To be completed for each member of Joint Venture)

Date: _____

ICB No. _____ and title: _____

Page _____ of _____ pages

Bidder's Joint Venture name:
JV member's name:
JV member's country of registration:
JV member's year of constitution:
JV member's legal address in country of constitution:
JV member's authorized representative information Name: _____ Address: _____ Telephone/Fax numbers: _____ E-mail address: _____
1. Attached are copies of original documents of <input type="checkbox"/> Articles of Incorporation (or equivalent documents of constitution or association), and/or registration documents of the legal entity named above, in accordance with ITB 4.3. <input type="checkbox"/> In case of a government-owned enterprise or institution, documents establishing legal and financial autonomy, operation in accordance with commercial law, and absence of dependent status, in accordance with ITB 4.5. 2. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.

Form CON – 2: Historical Contract Non-Performance, Pending Litigation and Litigation History

Bidder' Name: _____

Date: _____

Joint Venture Member's Name _____

ICB No. and title: _____

Page _____ of _____ pages

Non-Performed Contracts in accordance with Section III, Evaluation Criteria and Qualifications

- Contract non-performance did not occur since 1st January [insert year] specified in Section III, Evaluation Criteria and Qualifications, Sub-Factor 2.1.
- Contract(s) not performed since 1st January [insert year] specified in Section III, Evaluation Criteria and Qualifications, requirement 2.1

Year	Non-performed portion of contract	Contract Identification	Total Contract Amount (current value, currency, exchange rate and US\$ equivalent)
		Contract Identification: Name of Employer: Address of Employer: Reason(s) for non-performance:	

Pending Litigation, in accordance with Section III, Evaluation Criteria and Qualifications

- No pending litigation in accordance with Section III, Evaluation Criteria and Qualifications, Sub-Factor 2.3.
- Pending litigation in accordance with Section III, Evaluation Criteria and Qualifications, Sub-Factor 2.3 as indicated below.

Form CCC: Current Contract Commitments / Works in Progress

Bidders and each partner to a JV should provide information on their current commitments on all contracts that have been awarded, or for which a letter of intent or acceptance has been received, or for contracts approaching completion, but for which an unqualified, full completion certificate has yet to be issued.

Name of contract	Employer, contact address/Tel/fax	Value of outstanding work (current US\$ equivalent)	Estimated completion date	Average monthly invoicing over last six months (US\$/month)
1.				
2.				
3.				
4.				
5.				
etc.				

Form FIN – 3.1: Financial Situation and Performance

Bidder's Name: _____

Date: _____

Joint Venture Member's Name _____

ICB No. and title: _____

Page _____ of _____ pages

1. Financial data

Type of Financial information in (currency)	Historic information for previous _____ years, _____ (Amount in currency, currency, exchange rate, USD equivalent)				
	Year 1	Year 2	Year 3	Year 4	Year 5
Statement of Financial Position (Information from Balance Sheet)					
Total Assets (TA)					
Total Liabilities (TL)					
Total Equity/Net Worth (NW)					
Current Assets (CA)					
Current Liabilities (CL)					
Working Capital (WC)					
Information from Income Statement					
Total Revenue (TR)					
Profits Before Taxes (PBT)					
Cash Flow Information					
Cash Flow from Operating Activities					

2. Sources of Finance

Specify sources of finance to meet the cash flow requirements on works currently in progress and for future contract commitments.

No.	Source of finance	Amount (US\$ equivalent)
1		
2		
3		

2. Financial documents

The Bidder and its parties shall provide copies of financial statements for _____ years pursuant Section III, Evaluation and Qualifications Criteria, Sub-factor 3.2. The financial statements shall:

- (a) Reflect the financial situation of the Bidder or in case of JV member, and not an affiliated entity (such as parent company or group member).
 - (b) Be independently audited or certified in accordance with local legislation.
 - (c) Be complete, including all notes to the financial statements.
 - (d) Correspond to accounting periods already completed and audited.
- Attached are copies of financial statements¹² for the _____ years required above; and complying with the requirements

¹² If the most recent set of financial statements is for a period earlier than 12 months from the date of bid, the reason for this should be justified.

Form FIN - 3.2: Average Annual Construction Turnover

Bidder's Name: _____

Date: _____

Joint Venture Member's Name _____

ICB No. and title: _____

Page _____ of _____ pages

		Annual turnover data (construction only)	
Year	Amount Currency	Exchange rate	USD equivalent
[indicate year]	[insert amount and indicate currency]		
Average Annual Construction Turnover *			

* See Section III, Evaluation and Qualification Criteria, Sub-Factor 3.2.

Form FIN3.3: Financial Resources

Specify proposed sources of financing, such as liquid assets, unencumbered real assets, lines of credit, and other financial means, net of current commitments, available to meet the total construction cash flow demands of the subject contract or contracts as specified in Section III (Evaluation and Qualification Criteria)

Source of financing	Amount (US\$ equivalent)
1.	
2.	
3.	
4.	

Form EXP - 4.1: General Construction Experience

Bidder's Name: _____

Date: _____

Joint Venture Member's Name _____

ICB No. and title: _____

Page _____ of _____ pages

Starting Year	Ending Year	Contract Identification	Role of Bidder
		Contract name: _____ Brief Description of the Works performed by the Bidder: _____ Amount of contract: _____ Name of Employer: _____ Address: _____	
		Contract name: _____ Brief Description of the Works performed by the Bidder: _____ Amount of contract: _____ Name of Employer: _____ Address: _____	
		Contract name: _____ Brief Description of the Works performed by the Bidder: _____ Amount of contract: _____ Name of Employer: _____ Address: _____	

Form EXP - 4.2(a): Specific Construction and Contract Management Experience

Bidder's Name: _____

Date: _____

Joint Venture Member's Name _____

ICB No. and title: _____

Page _____ of _____ pages

Similar Contract No.	Information			
Contract Identification				
Award date				
Completion date				
Role in Contract	Prime Contractor <input type="checkbox"/>	Member in JV <input type="checkbox"/>	Management Contractor <input type="checkbox"/>	Sub-contractor <input type="checkbox"/>
Total Contract Amount			US\$ *	
If member in a JV or sub-contractor, specify participation in total Contract amount			*	
Employer's Name:				
Address:				
Telephone/fax number				
E-mail:				

Form EXP - 4.2(a) (cont.)
Specific Construction and Contract Management Experience
(cont.)

Similar Contract No.	Information
Description of the similarity in accordance with Sub-Factor 4.2(a) of Section III:	
1. Amount	
2. Physical size of required works items	
3. Complexity	
4. Methods/Technology	
5. Construction rate for key activities	
6. Other Characteristics	

Form EXP - 4.2(b): Construction Experience in Key Activities

Bidder's Name: _____

Date: _____

Joint Venture Member's Name _____

Sub-contractor's Name¹³ (as per ITB 34.2 and 34.3): _____

ICB No. and title: _____

Page _____ of _____ pages

Sub-contractor's Name (as per ITB 34.2 and 34.3): _____

All Sub-contractors for key activities must complete the information in this form as per ITB 34.2 and 34.3 and Section III, Qualification Criteria and Requirements, Sub-Factor 4.2.

1. Key Activity No One: _____

Information				
Contract Identification				
Award date				
Completion date				
Role in Contract	Prime Contractor <input type="checkbox"/>	Member in JV <input type="checkbox"/>	Management Contractor <input type="checkbox"/>	Sub-contractor <input type="checkbox"/>
Total Contract Amount			US\$	
Quantity (Volume, number or rate of production, as applicable) performed under the contract per year or part of the year	Total quantity in the contract (i)	Percentage participation (ii)		Actual Quantity Performed (i) x (ii)
Year 1				
Year 2				
Year 3				
Year 4				
Employer's Name:				
Address:				
Telephone number				
Fax number				

¹³ If applicable.

E-mail:	
---------	--

2. Activity No. Two

3.

Eligible Countries

Eligibility for the Provision of Goods, Works and Services.

In reference to ITB 4.7, and 5.1, for the information of the Bidders, at the present time firms, goods and services from the following countries are excluded from this bidding process:

Under ITB 4.7 (a) and 5.1 **NONE**

Under ITB 4.7 (b) and 5.1 **NONE**

SECTION VI

Corrupt and Fraudulent Practices

The procuring entity requires that the tenderer observes the highest standard of ethics during the procurement process and execution of the contract. A tenderer shall sign a declaration that he has not and will not be involved in corrupt and fraudulent practices.

The procuring entity will reject a tender if it determines that the tenderer recommended for award has engaged in corrupt and fraudulent practices in competing for the contract in question.

Further a tenderer who is found to have indulged in corrupt and fraudulent practices risks being debarred from participating in public procurement in Kenya.

Section VII - Work's Requirements

Table of Contents

Specifications.....	75
Standard Specifications.....	75
2.1 GENERAL	62
SPECIAL SPECIFICATIONS.....	67
PARTICULAR SPECIFICATIONS OF PV SOLAR MODULES	71
ANNEXURE - A	Error! Bookmark not defined.
ANNEXURE – B.....	Error! Bookmark not defined.
Drawings.....	Error! Bookmark not defined.
Bills of Quantities.....	Error! Bookmark not defined.
Preamble.....	Error! Bookmark not defined.
PRELIMINARIES AND BILLS OF QUANTITIES	Error! Bookmark not defined.

Specifications

Standard Specifications

GENERAL SPECIFICATIONS OF MATERIALS AND WORKS

- 2.1 General
- 2.2 Standard of Materials
- 2.3 Workmanship
- 2.4 Procurement of Materials
- 2.5 Shop Drawings
- 2.6 Record Drawings
- 2.7 Regulations and Standards
- 2.8 Setting out Works
- 2.9 Labels
- 2.10 Earthing
- 2.11 Testing on Site

2.1 GENERAL

This specification is to be read in conjunction with the drawings which are issued with it.

2.2 STANDARD OF MATERIALS

Where the material and equipment are specifically described and named in the Specification followed by approved equal, they are so named or described for the purpose of establishing a standard to which the sub-contractor shall adhere.

Should the contractor install any material not specified herein before receiving approval from the proper authorities, the Engineer shall direct the contractor to remove the material in question immediately. The fact that this material has been installed shall have no bearing or influence on the decision by the Engineer.

All materials condemned by the Engineer as not approved for use, are to be removed from the premises and suitable materials delivered and installed in their place at the expense of the Contractor. All materials required for the works shall be new and the best of the respective kind and shall be of a uniform pattern.

2.3. WORKMANSHIP

The workmanship and method of installation shall conform to the best standard practice. All work shall be performed by a skilled tradesman and to the satisfaction of the Engineer. Helpers shall have qualified supervision.

Any work that does not in the opinion of the Engineer conform to the best standard practice will be removed and reinstated at the contractors' expense.

Permits, Certificates or Licences must be held by all tradesmen for the type of work; in which they are involved where such permits, certificates or licences exist under Government legislation.

2.4. PROCUREMENT OF MATERIALS

The contractor is advised that no assistance can be given in the procurement or allotment of any materials or products to be used in and necessary for the construction and completion of the work.

Contractors are warned that they must make their own arrangements for the supply of materials and/or products specified or required.

2.5. SHOP DRAWINGS

Before manufacture or Fabrication is commenced the contractor shall submit Two copies of detailed drawings of all Solar Pv Modules, Inverters, MPPT charge controllers, Net metering system, safety switches, racks and mounts and components involved, switchboards including their components showing all pertinent information including sizes, capacities, construction details, etc, as may be required to determine the suitability of the equipment for the approval of the Engineer. Approval of the detailed drawings shall not relieve the contractor of the full responsibility of errors or the necessity of checking the drawings himself or of furnishing the materials and equipment and performing the work required by the plans and specifications.

2.6. RECORD DRAWINGS

These diagrams and drawings shall show the completed installation including sizes, runs and arrangements of the installation. The drawings shall be to scale not less than 1:50 and shall include plan views and section.

The drawings shall include all the details which may be useful in the operation, maintenance or subsequent modifications or extensions to the installation.

Three sets of diagrams and drawings shall be provided, all to the approval of the Engineer.

One coloured set of line diagrams relating to operating and maintenance instructions shall be framed and, mounted in a suitable location.

Solar PV design drawings, manuals and software must be provided.

2.7. REGULATIONS AND STANDARDS

All work executed by the contractor shall comply with the current edition of the “Regulations” for the Electrical Equipment of Buildings, Issued by the Institution of Engineering and Technology, and with the Regulations of the Energy and Petroleum Authority (EPRA). And national construction authority. (NCA).

Where the sets of regulations appear to conflict, they shall be clarified with the Engineer. All materials used shall comply with relevant Kenya Bureau of Standards Specification.

2.8. SETTING OUT WORK

The contractor at his own expenses; is to set out works and take all measurements and dimensions required for the erection of his materials on site; making any modifications in details as may be found necessary during the progress of the works, submitting any such modifications or alterations in detail to the Engineer before proceeding and must allow in his bid for all such modifications and for the provision of any such sketches or drawings related thereto.

2.12 EARTHING

The earthing of the installation shall comply with the following requirements; -

- (i) It shall be carried out in accordance with the appropriate sections of the current edition of the Regulations, for the Electrical Equipment of Buildings issued by IET.
- (ii) The Solar grid tie system shall be connected by a suitable earthing system.
- (iii) All tapes to be soft high conductivity copper, untinned except where otherwise specified and where run underground on or through walls, floors, etc., it shall be served with corrosion resisting tape or coated with corrosion compound and braided
- (iv) Where the earth electrode is located outside the building a removable test link shall be provided inside the building as near as possible to the point of entry to the tape, for isolating the earth electrode for testing purposes.
- (v) Earthing of sub-main equipment shall be deemed to be satisfactory where the sub-main cables are M.I.C.S. or conduit with separate earth

wire, and installation is carried out in accordance with the figures stated in the current edition of the I.E.T Regulations.

- (vi) Where an earth rod is specified, it shall be proprietary manufacture, solid hand drawn copper of 15mm diameter driven into the ground to a minimum depth of 1.6m. It shall be made up to 1.2m sections with internal screw and socket joints and fitted with hardened steel tip and driving cap.
- (vii) Earth plates will not be permitted
- (viii) Where an earth rod is used the earth resistance shall be tested in the manner described in the current edition of the IET Regulations, by the Contractor in the presence of the Engineer and the Contractor shall be responsible for the supply of all test equipment.
- (ix) Where copper tape is fixed to the building structure it shall be by means of purpose made non-ferrous saddles which space the conductor away from the structure a minimum distance of 20mm. Fixings, shall be made using purpose made plugs; No fixings requiring holes to be drilled through the tape will be accepted.
- (x) Joints in copper tape shall be tinned before assembly riveted with a minimum of two copper rivets and seated solid.
- (xi) Where holes are drilled in the earth tape for connection to items of equipment the effective cross-sectional area must not be less than required to comply with the IET regulations.
- (xii) Bolts, nuts and washers for any fixing to the earth tape must be of non-ferrous material.
- (xiii) Attention is drawn to the need for the earthing metal parts of lighting fittings and for bonding ball joint suspension in lighting fittings.

2.13 TESTING ON SITE

The contractor shall conduct during and at the completion of the installation and, if required, again at the expiration of the maintenance period, tests in accordance with the relevant section of the current edition of the Regulations for the electrical equipment of buildings issued by the I.E.T, the Kenya Energy Act 2019, NCA and the EPRA (former ERC).

- (a) NDT (Non-Destructive Testing) tests shall be performed on the whole system and signed reports issued
- (b) Earthing test to be carried out
- (c) Any faults, defects or omissions or faulty workmanship, incorrectly positioned or installed parts of the installation made apparently by such inspections or tests shall be rectified by the Contractor at his own expense.
- (d) The contractor shall provide accurate instruments and apparatus and all labour required to carry out the above tests. The instruments and apparatus shall be made available to the QA Engineer to enable him to carry out such tests as he may require. The Contractor shall generally attend on other contractors employed on the project and carry out such electrical tests as may be necessary. The contractor shall test to the engineer's approval and as specified elsewhere in this specification or in standards and regulations already referred to, all

equipment, plant and apparatus forming part of the works and before connecting to any power or other supply and setting to work.

Where such equipment, etc., forms part of or is connected to a system whether primarily or of an electrical nature or otherwise the contractor shall attend on and assist in balancing, regulating testing and commissioning, or if primarily an electrical or other system forming part of works, shall balance, regulate, test and commission the system to the engineer's approval.

APPENDIX TO GENERAL SPECIFICATIONS OF MATERIALS AND WORKS

The electrical contractor shall comply with the following: -

1. Kenya Energy Act 2019.
2. Renewable Energy-Solar PV installation regulations
3. Energy and Petroleum Regulatory Authority (EPRA) formerly ERC
4. National Construction Authority (NCA)
5. Communications Authority of Kenya (CAK).

SPECIAL SPECIFICATIONS

PART 1 GENERAL SPECIFICATION

1.01 Description of the Works

The Works provided for under this Contract consist of; **Proposed Finance, Design, Procure, Construct, Install, Test, Commission, Operate and Maintain, And Train Relevant Staff Under a Build Own Operate and Transfer (BOOT) A 150 Kw Solar Grid Tie System (PPA)**

1.02 Location of the Works.

The Works will be carried at **Limuru Dairy Farmers Cooperative Society .**

1.03 The Site and Access Thereto

The Engineer will, by notice from the Employer, give the Contractor possession of site,

1.04 Definition of Commencement

For the purpose of this clause, the works shall be deemed to have commenced when all of the following conditions are satisfied:

- a) Project launch has been carried out
- b) The principal items of Constructional Plant have been brought onto site and put to work in the execution of the Permanent Works.
- c) Official Site handover has been done.

1.05 Environmental and Social Safeguards

The Contractor shall provide adequate warning signs, barriers, and any other devices and personnel (if necessary) equipped to ensure the safe passage of traffic and of his employees throughout the works. The Contractor shall so arrange his work to ensure the safe passage of the traffic at all times and if necessary construct and maintain an adequate warning signs for traffic, complete with all the necessary work traffic signs.

The following is a list of "**must do**" for the Contractors/RE/Site Agents to solve the Environmental and Social Safeguards issues. The ESMP is part of the tender document :

- a) Use standard signs only.
- b) Use signs which are clean and in good condition.
- c) Display the standard signs in a standard layout in accordance with the drawings
- d) Ensure that the layout used gives drivers time to understand and respond to the information that the signs convey.
- e) Strict compliance with EIA Report and exhaustively the ESMP

- f) All project personnel to have reflector jacket, boots, helmet, gloves, and other forms of protective gears. Also have readily available reflectors and helmet for site visitors. All the above Personnel Protective Equipment (PPEs) should be in clean and serviceable condition at all times
- g) The following record books should be available on site at all times Injury Record Book (IRB) and Daily Occurrences book (DOB), which should be open to the public for day-to-day grievance recording. And have a grievance redress mechanism.
- h) The contractor should provide immediately a stakeholder engagement Plan (SEP) which should demonstrate all agreements between stakeholders and/with the contractor/clients. Issues of verandah demolitions, water disconnection, agreements etc. should be captured in this plan.
- i) The contractor should comply with Labour management standards and laws which include timely payment of site staff and affirmative action in recruitment of site staff.
- j) HIV/AIDS awareness campaign for the integrated project shall be carried out in conjunction with the main works contractor
- k) Ensure sanitary facilities are provided by the contractors-a site toilet for both male and female employees.
- l) The contractor should provide a signed code of conduct for all employees
- m) The contractor provides an Environmental and Social Plan (ESP).
- n) Monthly reports from both RE and Contractor should have a whole chapter on compliance to all environment and social safeguard issues.
- o) All temporary signs must be removed as soon as the work they relate to is complete.

1.06 Disposal of Waste Material

i. General

Waste materials including, but not restricted to, refuse, garbage, sanitary wastes, industrial wastes, and oil and other petroleum products, shall be disposed of by the Contractor. Disposal of combustible materials shall be by burying, where burial of such materials is approved by the Engineer; by burning, where burning of approved materials is permitted in accordance with local laws; or by removal from the construction area. Disposal of noncombustible materials shall be by burying, where burial of such materials is approved by the Engineer, or by removal from the construction area. Waste materials removed from the construction area shall be dumped at an approved dump area.

ii. Disposal of material by burying.

Only materials approved by the Engineer may be buried. Burial shall be in pits at locations shown on drawings or as otherwise approved by the Engineer. The pits shall be covered by at least 0.6 metres of earth material prior to abandonment.

iii. Disposal of material by burning

All burning shall be in accordance with local laws. All materials to be burned shall be piled in designated burning areas in such a manner as will cause the least fire hazards. Burning shall be thorough and complete and all charred pieces remaining after burning, except for scattered pieces, shall be removed from the construction area and disposed of as otherwise provided in this paragraph. The Contractor shall, at all times, take special precautions to prevent fire from spreading beyond the piles being burned and shall be liable for any damage caused by his burning operations. The Contractor shall have available, at all times, suitable equipment and supplies for use in preventing and suppressing fires and shall be subject to all laws and regulations locally applicable for pressure pressure, suppression and prevention of fires.

iv. Disposal of material by removal

Material to be disposed of by removal from the construction area shall be removed from the area prior to the completion of the work under these specifications. Materials to be disposed of by dumping shall be hauled to an approved dump. It shall be the responsibility of the Contractor to make any necessary arrangements with private parties and with local officials pertinent to locations and regulations of such dumping. Any fees or charges required to be paid for dumping of materials shall be paid by the Contractor.

The Contractor shall be responsible for the removal and disposal from the site of all spoil arising from the execution of the Works with the exception of materials suitable for re-use in the Works which shall be stockpiled for later use as directed by the Engineer. Spoil arising from excavations shall be disposed of in a spoil dump approved by the Engineer. Vegetation, debris and all other biodegradable waste arising shall be disposed in accordance with applicable statutory regulations.

The Contractor shall be responsible for the acquisition of the secluded spot suitable for Engineer disposal of the spoil.

1.07 Working Hours

At the commencement of the works, the Contractor shall submit in writing to the Engineer, the hours that shall be considered normal working hours for his approval, together with the day of the week that is to be set-aside for rest. When approved these shall be maintained throughout the duration of the contract. Notwithstanding the provision of Clause 108 of the Standard Specifications, the Engineer's normal working hours shall be defined as 8.00a.m. to 5.00p.m. Excluding lunch hour on weekdays (Monday to Friday). Sundays will be set aside for the rest. Where the Contractor wishes to execute permanent work outside these hours, except for Saturdays between 7.45 am and 1.00pm, he shall obtain the written permission of the Engineer at least 24 hours in advance to enable the Engineer, to make provision for proper inspection of any work.

The Engineer's staff that are required, for any reason whatsoever which relates to the supervision of the Works, to work hours which are additional to the normal working hours herein before defined, shall be paid overtime and the full cost of such overtime shall be reimbursed by the Contractor to the Engineer at no extra cost to the Employer.

1.08 Execution of the Works

The Works under this Contract shall include the routine maintenance activities set out as specified in the General and Particular Conditions of Contract, Drawings, the Standard Specification and Special Specifications.

1.09 Contract Sign boards

The Contractor shall supply contract name boards on all main roads entering the site of Works. The contract name boards shall comply with the requirements issued by the Engineer. The Contractor shall maintain the contract name boards in clean and good condition for the duration of the contract.

1.10 Contractor's Site Office

The Contractor shall identify his base of operation for the contract within a distance of five kilometers of the site of the Works. He shall maintain at such base a facility whereby the Engineer can contact the Contractor's representative to issue instructions for execution under the contract. Delivery of any information from Engineer to such base shall be deemed to be delivery to the Contractor

The Contractor shall provide for the establishment of the necessary facilities at his base of operations, all general needs of his personnel

1.11 Monthly commitments

Notwithstanding the establishment costs referred to in Clause 1.13, the Contractor shall provide for continued maintenance of the base of operations and all systems relating to the operations of the contract, for the entire period of the Contract, including any extension of the Contract agreed in terms of the Conditions of Contract. (These include passage of traffic, project supervision etc.)

1.12 Materials and Manufactured Articles

Notwithstanding the provision of clause 126 of the Standard Specification, the Contractor's attention is drawn to his obligation with regard to quality and delivery schedule of materials and goods obtained from suppliers.

Should the Engineer at any time be dissatisfied with any goods and materials intended for use or used by the Contractor upon the works, he shall be empowered to reject such goods and materials and shall order that they be replaced by others of acceptable quality. Any more work that may consequently have to be redone and the cost thereof of the new supplies shall be borne by the Contractor.

PARTICULAR SPECIFICATIONS OF GRID TIE SOLAR SYSTEM

1. SPECIFICATIONS OF MATERIALS AND WORKMANSHIP FOR PV SOLAR MODULES

A. Scope of Works

Proposed Finance, Design, Procure, Construct, Install, Test, Commission, Operate and Maintain, And Train Relevant Staff Under a Build Own Operate and Transfer (BOOT) A 150 Kw Solar Grid Tie System (PPA

It is deemed that if, in the opinion of the Contractor at the time of quoting, there existed a discrepancy between the Specification and the actual work, that the Contractor clarifies this difference with the Electrical Engineer before quoting.

B. Specification

The work shall be executed and completed, unless expressly directed otherwise, in accordance with the following:-

- i) The specification
- ii) The current edition of the Institution of Engineering and Technology (I.E.T) regulations
- iii) Kenya Energy Act 2019
- iv) National Construction Authority
- v) Energy and Petroleum Regulatory Authority (EPRA)
- vi) Kenya Bureau of Standards
- vii) The British or Kenya Standard specification and relevant and applicable British code of practice.

C. Ordering

The Contractor shall order materials from the quantities taken from his own approved working drawings and not from the quantities shown on in the Specification.

D. Submission of materials and defective work

All materials to be installed must be new and the best of their respective kinds.

The Contractor must examine carefully any materials and /or apparatus submitted to him for installation and/or connection. Any defects detected must be communicated to the Electrical Engineer.

E. Samples and defective work

All materials to be used in the installation work must be made available for Inspection and approval and samples must be submitted upon request to the Electrical Engineer.

If the Contractor wishes to install or use other types of materials different from those specified in the Tender document, then the manufacturers technical and any other relevant pamphlets must be submitted to the Electrical Engineer for consideration and approval.

The right is expressly reserved to order at the Contractors expense the removal from site of all materials not conforming to the specifications and the Dismantling and re-execution of all works which by reason of inclusion of Improper, specified or defective materials and /or poor class or defective Workmanship are a contravention of any clause in the specification.

F. Earthing of PV solar module.

The contractor shall ensure installation is earthed in accordance with the requirements of the current edition of the “Regulations for Electrical Installations”

G. Testing of the Installation

The Contractor shall carry out tests of the completed installation, copies of the test results shall be provided to the Electrical Engineer, a provisional sum is provided in the Bill of Quantities for the Electrical Engineer to carry out confirmatory and NDT tests.

H. Earth Continuity

The resistance measured from every earth electrode to the farthest point of the installation shall not exceed 0.5 ohms.

I. Earth Electrode Resistance

Test for earth electrode resistance shall not exceed 3 ohms using a null balance tester

J. Guarantee of the Installation

The Contractor shall guarantee the whole installation for a period agreed in the PPA agreement document from the date of final completion. During this period all defects arising out of faulty materials or workmanship shall be made good free of cost – fair wear and tear expected.

Any contravention of the clauses and conditions of the specifications discovered during the guaranteed period must be corrected free of charge. The submission of the completed Test Form cannot be offered by the Contractor as a final discharge of his responsibilities in respect of the soundness of the installation neither must it be inferred that the readings will necessary be made accepted.

The acceptance of the Form shall in no manner vitiate claims that may subsequently be made under the terms of the guarantee.

K. Clearing of Site and damages

The Contractor must include for the clearing away from site immediately, after completion, all the unused materials and any rubbish or litter as may have been caused by his works.

L. Documents Establishing Goods' Eligibility and Conformity to Bidding Documents

- (a) The documentary evidence of the goods and services eligibility shall consist of a statement on the country of origin of the goods .
- (b) The documentary evidence of conformity of the goods and services to the bidding documents may be in the form of literature, drawings and data, and shall consist of:
 - i. A detailed description of the essential technical and performance characteristics of the goods;

- ii. A list giving full particulars, including available sources and current prices of spare parts, special tools, etc., necessary for the proper and continuing functioning of the goods for a period of two years, following commencement of the use of the goods by the Purchaser; and
 - iii. An item-by-item commentary on the Purchaser's Technical Specifications demonstrating substantial responsiveness of the goods and services to those specifications or a statement of deviations and exceptions to the provisions of the Technical Specifications.
- (c) For purposes of the commentary to be furnished pursuant to above, the Bidder shall note that standards for workmanship, material and equipment, and references to brand names or catalogue numbers designated by the Purchaser in its Technical Specifications are intended to be descriptive only and not restrictive. The Bidder may substitute alternative standards, brand names and/or catalogue numbers in its bid, provided that it demonstrates to the Purchaser's satisfaction that the substitutions ensure substantial equivalence to those designated in the Technical Specifications.

The successful tenderer will be expected to complete the Works within the time for Completion specified in the PPA agreement document. All tenderers shall provide a statement (hereinafter referred to as “the Method Statement”) giving a general description of the proposed work method, co-ordination of work, and details of proposed sub-contractors if any. The tenderer, at his own responsibility, cost and risk, is mandated to visit and examine the Site of the proposed Works and its surroundings, and obtain all information that may be necessary for preparing the tender and entering into a contract for construction of the Works. The contact that the Tenderer shall liaise with for the purpose of examining the site of works shall be the Electrical Engineer.

QUALIFICATION GUIDELINES

Financial capabilities i) The Bidders shall also demonstrate, to the satisfaction of the Employer, that it has adequate sources of finance to meet the cash flow requirements on works proposed

2. **REGISTRATION** Registered with NCA category 5 and above with the current registration license. Must have the current single business permit and must be tax compliant

4. Personnel

The Bidder must demonstrate that it will have the personnel for the key positions that meet the following requirements:

[Specify requirements for each lot as applicable]

No.	Position	Total Similar Work Experience (years)	In Similar Works Experience (years)
1	Site Agent (Bachelor of Science, Electrical Eng. Registrable/HND in Electrical Engineering)	5	2
2	Deputy Site Agent (Diploma, Electrical Eng.)	3	1
3	Site Foremen (Diploma in Electrical Engineering)	2	1

The Bidder shall provide details of the proposed personnel and their experience records in the relevant Forms included in Section IV, Bidding Forms.

5. Equipment

The Bidder must demonstrate that they will have access to the key Contractor's equipment necessary to complete to standards all the works involved.

The Bidder shall provide further details of proposed items of equipment using the relevant Form in Section V.

6. Evaluation Assessment

These guidelines will be used in awarding marks to bidders but subject to meeting all the conditions of Section III.

Specifications

Standard Specifications

GENERAL SPECIFICATIONS OF MATERIALS AND WORKS

COMPONENT	SPEIFICATION
CABLE & WIRING	<ul style="list-style-type: none"> • Shall be copper, stranded wire, • Shall be insulated for protection from heat, moisture • Pv wire, USE -2, and RHW 2
Power conditioning unit	<ol style="list-style-type: none"> i. Inverter HUAWEI SUN 2000 or equivalents and as directed by the Engineer with a minimum of 5years warranty ii. MPPT should have an efficiency of 98% and optimized protection. iii. Controls including but not limited to frequency control, AVR, APC, Power factor control and VAR control iv. Protection switches
Net metering	shall, install and maintain the Main Metering Equipment provide bi directional meter to measure all power components
Rack and mounts	<ul style="list-style-type: none"> • The mechanical structures shall withstand gusts of wind up to 150km/hr • Each panel frame structure shall be so fabricated to be grouted on the roof on its legs, the legs of the structure shall be fixed and grouted in the PCC foundation column made with 1:2:4 concrete • All nuts and bolts shall be made of good quality stainless still • The structure shall be designed to allow replacement of any module
Safety switches	<ul style="list-style-type: none"> • Rated operation voltage of 1000V • Maximized operation current
Solar PV modules and array	<ul style="list-style-type: none"> • The provided PV modules shall be of the best quality in the market with over 19% cell efficiency and shall be able to operate under extremely cold weather. • The PV modules shall contain Monocrystalline (PERC) • IEC/ISO certified or equivalent and shall meet the requirements set in IEC 61215:2000, IEC 61730, IECTS 62941 • Peak power output shall be at least 150 Wp • The operating voltage corresponding power output must be mentioned. • The open circuit voltage of the PV module under STC must be mentioned. • Total array capacity shall not be less than 150KWp • Modules must conform to the latest edition of any PV module approval and standard qualification.
Junction boxes	Shall be dust prof, water proof and made of FRP/ thermoplastic

	The terminals shall be connected to copper bus bar arrangements of proper sizes
Monitoring system	Shall be of the newest technology as Mateo control blue log or equivalent and shall provide real time data at all times

-The above specs are subject to change s directed by the engineer

NAME OF TENDERER _____

ADDRESS _____

TEL. NO. _____ FAX NO. _____

SIGNATURE OF TENDERER _____ DATE _____

OFFICIAL RUBBER STAMP _____

WITNESS _____ SIGNATURE _____ DATE _____

ADDRESS _____ TEL. NO. _____

ANNEXURE

TECHNICAL SPECIFICATION FOR SOLAR POWER EQUIPMENT TO BE REQUIRED

Solar PV system should consist of following equipment:

- i. Solar Power Generation system consisting of required number of PV Modules.
- ii. Efficient On-Grid/Hybrid Inverters
- iii. Mounting structures
- iv. Cables and hardware
- v. Miscellaneous Item
 - a. Junction box and distribution boxes
 - b. Earthing kit
 - c. Lightning arrestors
 - d. PVC pipes and accessories
 - e. Control room and civil pedestals

The supplied equipment must comply the below mentioned specifications:

PANEL MOUNTING STRUCTURE

- (i) The PV solar panel mounting metallic structure should be fixed mount L2 or L3 structure where required with 12 Gauge thickness, mounted on concrete base 6 inches above ground level. The tilt angle should set to year-round compromise (Equal to latitude).
- (ii) The entire mechanical structure should be hot dipped galvanized and powder coated for longer life of the structure. Structure should be hot dip galvanized up to 90 microns.
- (iii) The Surface azimuth angle of PV Module 180° and the Tilt angle (slope) of PV Module should be according to the site location.
- (iv) The mounting structure must be engineered for wind resistance and safety as per geographical location of site.

- (v) Module should be fixed with the frame through SS bolts. The bolts should be tightened at the required angle.
- (vi) The Nuts, Bolts & Washers for modules & Mounting structures must be stainless steel material with appropriate gauge.
- (vii) Shading shall be avoided all over the year (around) from 30 minutes after the sunrise to 30 minutes before sunset (For installation purpose only).
- (viii) To allow regular cleaning of the solar modules, they should be easily accessible for personnel (For installation purpose only).

PV MODULE

- (i) The provided PV Module should be of best quality available in market. The PV module should have over nineteen percent (19%) cell efficiency.
- (ii) The PV module(s) shall contain Mono crystalline (PERC) silicon solar cells.
- (iii) The PV module have an ability to Works well with high-voltage input Inverters/ charge controllers
- (iv) The PV Panel must have clear anodized aluminum frame with Anti-reflection cover glass.
- (v) The power output of the module(s) under STC should be at optimum level.
- (vi) The operating voltage corresponding to the power output must be mentioned.
- (vii) The open circuit voltage of the PV modules under STC must be mentioned.
- (viii) The terminal box on the module should have a provision for opening for replacing the cable, if required and it should be waterproof
- (ix) The Solar Panel shell meet the requirement set in IEC 61215:2000, IEC61730, IEC TS 62941.
- (x) A specification sheet containing the following details should be laminated on module so as to be clearly visible from front/back side.
 - (a) Name of the manufacturer or distinctive logo.
 - (b) Model or Type No.

- (c) Serial number
 - (d) Year of manufacturing
 - (e) Peak Watt Rating
 - (f) Voltage and Current at Peak Power
 - (g) Open Circuit Voltage
 - (h) Short Circuit Current
 - (i) Maximum input voltages
- (viii) Limited performance guarantees: panel power, in standard conditions, should not be less than 90% of nominal power for first 10-years of operation and at least 80% for the 20 years of operation with 12-year product warranty and 25-year linear power warranty.
- (ix) Solar panel should have to pack for safe transportation on non-metallic roads.

Note: Bidder should justify the specs with appropriate lab test reports/certifications from the principle manufacturer.

POWER AND CONTROL CABLES

Power Cables of adequate rating as per IEC standard shall be required for interconnection of:

- Modules/panels within array
 - Array & Hybrid Inverter
 - Charge Controller & Battery
 - Automatic Distribution Box & Loads
- i) The cable shall be A grade, heavy duty, stranded flexible copper conductor, PVC type A insulated, galvanized steel wire/strip armored, flame retardant low smoke (FRLS) extruded PVC type ST-1 outer sheathed. The cables shall, in general conform to IS-1554 P+I & other relevant standards.

- ii) External cables should be specifically adapted to outdoor exposure (see IEC 60811). Especially the outer insulation must be sunlight (UV)-resistant, weatherproof and designed for underground installation. Preferably rubber-coated and PE-coated cables shall be used.
- iii) The temperature resistance of all interconnecting wires and cables should be $> 75^{\circ}$ C. The minimum acceptable cross-section of the wire in each of the following sub-circuits is as in ISO IEC prescription:
- iv) Notwithstanding the ISO /IEC requirements, all wires must be sized accordingly to keep line voltage losses to less than 3% between PV generator and battery, less than 1% between battery and charge regulator, and less than 3% between battery and load, all of them at the maximum current conditions. (Specifically for service providers)
- v) All wiring shall be color-coded (and/ labeled in case of service providers)
- vi) All supplied wires must be in UV-resistant conduits or be firmly fastened to the building and/or support structure. Cable binders, clamps and other fixing material must also be UV-resistant, preferably made of polyethylene.(for the case of service providers)
- vii) All connections should be properly terminated, soldered and/or sealed using MC4 connectors for outdoor and indoor elements. Relevant codes and operating manuals must be followed.

Inverters

The DC power produced is fed to inverter for conversion into AC. In a grid interactive system AC power should be fed to the grid at three phase bus. Inverter should comply with IEC 61683/IS 61683 for efficiency and measurements and should comply IEC 60068-2 (1, 2, 14, 30) / Equivalent BIS Standard for environmental testing. Inverter should supervise the grid condition continuously and in the event of grid failure (or) under voltage (or) over voltage, Solar System should be disconnected to share with National Grid circuit Breaker / Auto switch provided in the inverter. Two types of

inverters i.e. Grid Tie and Hybrid Inverters has been recommended based on the sitedesign. Technical specifications of both the inverters has been mentioned below:-

Grid-Tied Inverters/ On-Grid Inverters

Important Features/Protections required in the Grid-Tie Inverter are-

- i) The grid-connected inverters shall comply with UL 1741 standard.
- ii) Power generated from the solar system during the day time is utilized fully by powering the all-building loads and feeding excess power to the grid as long as grid is available. In cases, where solar power is not sufficient due to more demand or cloud cover etc. the building loads should be served by drawing power from the grid. The inverter should always give preference to the Solar Power and will use Grid power only when the Solar Power is insufficient to meet the load requirement.
- iii) The output of the inverter must synchronize automatically its AC output to the exact AC voltage and frequency of the grid.
- iv) Inverter equipped with array ground fault detection option.
- v) Grid voltage should also be continuously monitored and in the event of voltage going below a pre-set value and above a pre-set value, the solar system should be disconnected from the grid within the set time. Both over voltage and under voltage relays should have adjustable voltage (50% to 130%) and time settings (0 to 5 seconds).
- vi) Metal Oxide Visitors (MOVs) should also be provided on DC and AC side of the inverter.
- vii) The inverter control unit should be so designed so as to operate the PV system near its maximum Power Point (MPP), the operating point where the combined values of the current and voltage of the solar modules result in a maximum power output.
- viii) The inverter should be a pure sine wave inverter for a grid interactive PV system.

- ix) The degree of protection of the outdoor inverter panel should be at least IP-65.
- x) Typical technical features of the suggested inverters must mention as per following sequence.
- Continuous output power rating (1.1 times for 60seconds)
 - Nominal AC output voltage and frequency
 - Accuracy of AC voltage control $\pm 1\%$
 - Accuracy of frequency control $\pm 0.5\%$
 - Grid Frequency Control range ± 3 Hz
 - Maximum Input DC Voltage range
 - MPPT Range DC
 - Ambient temperature -10 deg C to 55 deg C
 - Humidity 95 % non- condensing
 - Protection of Enclosure IP-65 (minimum)
 - Grid Voltage tolerance -20 % and + 15 %
 - Power factor control 0.95 inductive to 0.95 capacitive
 - No-load losses < 1% of rated power
 - Inverter efficiency (minimum) plus 97%
 - Liquid crystal display should at least be provided on the inverters front panel or on separate data logging/display device to display following
 - a. DC Input Voltage
 - b. DC Input current
 - c. AC Power output(kW)
 - d. Current time and date
 - e. Time active
 - f. Time disabled
 - g. Time Idle
 - h. Temperatures (C)
 - i. Converter status

- Following should also be displayed like Protective function limits, over voltage, AC under voltage, over frequency, under frequency, ground fault, PV starting voltage, PV stopping voltage, over voltage delay, under voltage delay over frequency, ground fault delay, PV starting delay, PV stopping delay.)
 - xi) Nuts & bolts and the inverter enclosure should have to be adequately protected taking into consideration the atmosphere and weather prevailing in the area.
 - xii) Dimension and weight of the inverter should be indicated by the bidder in the offer.
 - xiii) All doors, covers, panels and cable exits should be gasketed or otherwise designed to limit the entry of dust and moisture. All doors should be equipped with locks.
 - xvi. Operation Mode:
 - a. Night or sleep mode: where the Inverter is almost completely turned off, with just the timer and control system still in operation, losses shall be less than 2 W per 5 kW.
 - b. Standby mode: where the control system continuously monitors the output of the solar generator until pre-set value is exceeded (typically 10 W).
 - c. Operational of MPP tracking mode: the control system continuously adjusts the voltage of the generator to optimize the power available. The power conditioner should automatically re-enter standby mode input power reduces below the standby mode threshold. Front panel should provide display of status of the inverter.

GRID TIED HYBRID INVERTER

Hybrid inverter(s) (system configuration) with provision for net-metering and battery back-up, should convert DC power produced by SPV modules in to AC power and adjust the voltage & frequency levels to suit the local grid conditions. Pure Sine wave output. Ground Fault Protection. Residual Current Detection (RCD) protection. Monitoring software for real-time status display and fault control. The unit should be able to operate in a high ambient temperature environment. Efficiency must be 96% or above at full load. The inverter must conform to the latest edition of IEC 61727, IEC

61000-6-1, IEC 610006-2, IEC 62109 and IEC 62116 standards

Other important Features/Protections required in the INVERTER

- i) The grid-connected hybrid inverters shall comply with UL 1741 standard.
- ii) Power generated from the solar system during the daytime should be utilized fully by powering the critical building loads and feeding excess power to the grid as long as grid is available. In cases, where solar power is not sufficient due to more demand or cloud cover etc. the building loads should be served by drawing power from the grid. The inverter should always give preference to the Solar Power and will use Grid/DG power only when the Solar Power is insufficient to meet the load requirement.
- iii) The output of the hybrid inverter must synchronize automatically its AC output to the exact AC voltage and frequency of the grid.
- iv) Inverter equipped with array ground fault detection option.
- v) The offered On-Grid Inverter must be of Hybrid type has an ability to synchronize with battery bank as backup system.
- vi) On-grid hybrid Inverters should have anti-islanded features built in and should continuously monitor the condition of the grid and in the event of grid failure; the inverter automatically switches to off-grid supply within 20-50 milliseconds and synchronize with battery bank and fulfil shortcoming from battery bank as PV-Battery hybrid system. The solar system should be resynchronized with the grid within two minutes after the restoration of grid or DG set.
- vii) Grid voltage should also be continuously monitored and in the event of voltage going below a pre-set value and above a pre-set value, the solar system should be disconnected from the grid within the set time. Both over voltage and under voltage relays should have adjustable voltage (50% to 130%) and time settings (0 to 5 seconds).
- viii) The inverter control unit should be so designed so as to operate the PV system near its maximum Power Point (MPP), the operating point where the combined

- values of the current and voltage of the solar modules result in a maximum power output.
- ix) The inverter should be a true sine wave for a grid interactive PV system.
- x) The degree of protection of the outdoor inverter panel should be at least IP-65.
- xi) Typical technical features of the suggested inverters must mention as per following sequence.
- Continuous output power rating (1.1 times for 60seconds)
 - Nominal AC output voltage and frequency
 - Accuracy of AC voltage control $\pm 1\%$
 - Accuracy of frequency control $\pm 0.5\%$
 - Grid Frequency Control range ± 3 Hz
 - Maximum Input DC Voltage range
 - MPPT Range DC
 - Battery Input voltages + 48 VDC or Plus
 - Ambient temperature -10 deg C to 55 deg C
 - Humidity 95 % non- condensing
 - Protection of Enclosure IP-55 (minimum)
 - Grid Voltage tolerance -20 % and + 15 %
 - Power factor control 0.95 inductive to 0.95 capacitive
 - No-load losses < 1% of rated power
 - Inverter efficiency (minimum) plus 97%
 - Following should also be displayed like Protective function limits, over voltage, AC under voltage, Over frequency, under frequency, ground fault, PV starting voltage, PV stopping voltage, over voltage delay, under voltage delay over frequency, ground fault delay, PV starting delay, PV stopping delay.)

Note: Bidder should justify the specs with appropriate lab test reports/certifications from the principle manufacturer.

SYNCHRONIZING EQUIPMENT

Solar PV systems should be provided with synchronizing equipment having three input for comparison i.e. grid supply vs. solar output, DG output vs solar output so as to connect the Solar PV systems in synchronism with grid or DG. In case of grid failure, solar PV system should be disconnected from the grid and out of synchronization for a period DG supply is not restored. PV system should be synchronized with the DG supply after DG is started.

PROTECTIONS AND CONTROL

- i. PV system software and control system should be equipped with islanding protection as described above. In addition to disconnection from the grid (islanding protection i.e., on no supply) , under and over voltage conditions , PV systems should be provided with adequate rating fuses, fuses on inverter input side (DC) as well as output side (AC) side for overload and short circuit protection and disconnecting switches to isolate the DC and AC system for maintenances are needed. Fuses of adequate rating should also be provided in each solar array module to protect them against short circuit.
- ii. A manual disconnect switch and change over switch beside automatic disconnection to grid should also be provided at utility end to isolate the grid connection by the utility personal to carry out any maintenance. This switch should be locked by the utility personal.

INTEGRATION OF PV POWER WITH GRID:

The output power from Solar PV system would be fed to the Hybrid inverter which feed some portion to battery bank for backup in case of grid failure and major portion converts DC produced by SPV array to AC and feeds it into the main electricity grid after synchronization. In case of grid failure, or low or high voltage, solar PV system shall be out of synchronization and shall be disconnected from the grid and feed power to the load as PV-Battery backup hybrid system. Once the DG set comes into service

PV system shall again be synchronized with DG supply and load requirement would be met to the extent of availability of power. The connection of the grid connected SPV power plant with the existing power supply system is shown in the diagram stated below

HARMONICS STANDARD:

As per the standard of IEEE 519, the permissible individual harmonics level shall be less than 3% (for both voltage and current harmonics) and Total Harmonics Distortion (THD) for both voltage and current harmonics of the system shall be less than 5%.

BATTERY BOX

- i) The battery bank should be housed in a vented compartment that prevents users from coming in contact with battery terminals. This compartment should be strong enough to accommodate the weight of the batteries. A mechanism to prevent opening and entry of the batteries should be provided.
- ii) The entire enclosure must be constructed to last at least twenty years without maintenance and should be protected against corrosion. The battery Bank enclosure should have a clean and neat appearance.

BATTERY

Lithium-ion batteries of appropriate capacity with complete battery management system should be used in hybrid and off grid system where required.

The following testing information must be provided by the bidders:

- i) Charge/Discharge Efficiency
- ii) Self-Discharge
- iii) The batteries must conform to the latest edition of IEC 62133 and/or IEC 61960 (whichever is applicable).
- iv) The battery bank should provide backup to a critical load of building.
- v) The battery must ensure safe and reliable operation in the whole range

- of ambient temperatures from -10° C to + 50° C.
- vi) The maximum permissible self-discharge rate is 5 percent of rated capacity per month at 25 C.
 - vii) Cycle life of the batteries must be greater than 6000 when discharged down to depth of discharge (DOD) of 80% percent discharge rate.
 - viii) The battery shall have a certificate of compliances, issued by a recognized laboratory.
 - ix) Batteries should be packaged in order to withstand transportation on non-metallic road.
 - x) The performance guarantee shall cover at least 05 years.

Note: Bidder should justify the specs with appropriate lab test reports/certifications from the principle manufacturer.

MISCELLANEOUS ITEMS FOR INSTALLATION EARTHING MATERIAL:

- i. Earthing is essential for the protection of the equipment & manpower. Two main grounding must be used for power equipment protection are:
 - DC Earthing.
 - AC Earthing.
- ii. DC and AC earthing should be installed separately where required as per standard.
- iii. In case of equipment earth all the non-current carrying metal parts are bonded together and connected to earth to prevent shock to the man power & also the protection of the equipment in case of any accidental contact.
- iv. To prevent the damage due to lightning the terminal of the lightning protection must be earthed separately. The provision for lightning & surge protection of the solar PV power source is required to be made as per standard.

- v. In case the solar PV Array could not installed close to the equipment to be powered & a separate earth has been provided for solar PV Panel.
- vi. Earth resistance shall not be more than 3 ohms. It shall be ensured that all the earths are bonded together to make them at the same potential.
- vii. The Earthing conductor rating shall be rated for the maximum short circuit current. & shall be 1.56 times the short circuit current. The area of cross-section shall not be less than 2.5 sq. mm in any case.
- viii. The array structure of the PV modules shall be grounded properly using adequate numbers of earthing pits. All metal casing/ shielding of the plant shall be thoroughly grounded to ensure safety of the power plant.

WIRING PVC/GI CHANNEL DUCTS

A product of good quality standard material with suitable size to be provided / used.

FLEXIBLE PVC PIPE

The flexible PVC pipe should be of good quality material with suitable size should be used.

COMBINER BOX

Combiner Box should be manufactured through GI material with 100% copper strip in it for termination of PV Arrays must be IP65 for outdoor installation.

JUNCTIONS BOXES OR COMBINERS

Dust, water and vermin proof junction boxes of adequate rating and adequate terminal facility made of fire resistant Plastic (FRP) shall be provided for wiring. Each solar shall be provided with fuses/ Circuit breakers of adequate rating to protect the solar arrays from accidental short circuit.

CIVIL WORKS

The following civil works should be carried out.

- i. Site grading, levelling, drilling exploratory bore holes and consolidation of the area pertaining to the installation of SPV modules.
- ii. Embedment of structures suitable for mounting PV modules.
- iii. Laying of earthing equipment /structures and connecting to the main ground as per the statutory requirements.
- iv. Construction of control room
- v. Cutting of cable trenches etc. wherever necessary

OTHER FEATURES:

- (i) The PV Module(s) should be warranted for a minimum period of 10 years from the date of supply, inverter with five years and the battery should be warranted for a period of 5 years from the date of installation. The warranty card to be supplied with the system must contain the details of the system. The manufacturers can also provide additional information about the system and conditions of warranty as necessary.
- (ii) Adequate space should be provided behind the PV module/array for allowing unobstructed airflow for passive cooling.
- (iii) Cable of appropriate size should be utilized to keep electrical losses to a bare minimum.
- (iv) The control electronics should not be installed directly with the battery. All wiring should be in proper conduit of capping casing. Wire should not be hanging loose.
- (v) Instruction and O&M manuals
 - ✓ Two copies of Instruction and Operation and Maintenance Manual in English and the local language should be provided with the system.
 - ✓ The manual shall be furnished at the time of dispatch of the equipment and shall include the following aspects:
 - a. Precautions during unpacking
 - b. Instructions for handling at site.

- c. Erection drawings with written assembly instructions that would enable the Purchaser to carry out erection with his own personnel if opted by him.
- d. Detailed instructions and procedures for the installation operation and maintenance.
- e. Pre-commissioning tests.
- f. About solar PV system – its components and expected performance.
- g. Principle of Operation of various equipment
- h. Safety and reliability aspects
- i. About power conditioning unit's software and controls
- j. Clear instructions on regular maintenance and troubleshooting of solar power plant.
- k. Name and address of the person or service centre to be contacted in case of failure or complaint.
- l. Outline dimension drawings showing relevant cross-sectional views, earthing details, constructional features. Rated voltages and current etc.

Technical and interconnection requirements

Overall conditions of service	State Distribution/Supply Code	State Distribution/Supply Code
Overall Grid Standards	Central Electricity Authority (Grid Standard) Regulations 2010	Central Electricity Authority (Grid Standard) Regulations 2010
Equipment	BIS / IEC / IEEE	BIS / IEC / IEEE
Meters	Central Electricity authority (Installation & operation of meters) Regulation 2006 as amended time to time	Central Electricity authority (Installation & operation of meters) Regulation 2006 as amended time to time
Safety and supply	Central Electricity Authority(measures of safety and electricity supply) Regulations, 2010	Central Electricity Authority(measures of safety and electricity supply) Regulations, 2010
Harmonic Requirements Harmonic Current	IEEE 519 CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations 2013	IEEE 519 CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations 2013
Synchronization	IEEE 519 CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations 2013	Photovoltaic system must be equipped with a grid frequency synchronization device. Every time the generating station is synchronized to the

		electricity system. It shall not cause voltage fluctuation greater than +/- 5% at point of connection.
Voltage	IEEE 519 CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations 2013	The voltage-operating window should minimize nuisance tripping and should be under operating range of 80% to 110% of the nominal connected voltage. Beyond a clearing time of 2 second, the photovoltaic system must isolate itself from the grid.
Flicker	IEEE 519 CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations 2013	Operation of Photovoltaic system should not cause
Frequency	IEEE 519 CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations 2013	When the Distribution system frequency deviates outside the specified conditions (50.5 Hz on upper side and 47.5 Hz on lower side), There should be over and under frequency trip functions with a clearing time of 0.2 seconds.

DC injection	IEEE 519 CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations 2013	Photovoltaic system should not inject DC power more than 0.5% of full rated output at the interconnection point or 1% of rated inverter output current into distribution system under any operating conditions.
Power Factor	IEEE 519 CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations 2013	The photovoltaic system in the event of fault, voltage or frequency variations must island/disconnect itself within IEC standard on stipulated period.
Overload and overheat	IEEE 519 CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations 2013	The inverter should have the facility to automatically switch off in case of overload or overheating and should restart when normal conditions are restored.
Paralleling Device	IEEE 519 CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations 2013	Paralleling device of photovoltaic system shall be capable of withstanding 220% of the normal voltage at the interconnection point.

Any minor equipment and material may not be specifically mentioned in this

specifications but are required to make the system complete in a every respect in accordance with technical specification shall be deemed to have been covered under the scope of this specification and shall be provided by the tenderer/supplier within thequoted

PART 3 – Conditions of Contract and Contract Forms

Section VIII. General Conditions of Contract

These General Conditions of Contract (GCC), read in conjunction with the Particular Conditions of Contract (PCC) and other documents listed therein, should be a complete document expressing fairly the rights and obligations of both parties.

These General Conditions of Contract have been developed on the basis of considerable international experience in the drafting and management of contracts, bearing in mind a trend in the construction industry towards simpler, more straightforward language.

The GCC can be used for both smaller measurement contracts and lump sum contracts.

Table of Clauses

A. General.....	100
1. Definitions.....	100
2. Interpretation.....	102
3. Language and Law	103
4. Project Manager’s Decisions	103
5. Delegation.....	103
6. Communications	103
7. Subcontracting	103
8. Other Contractors.....	103
9. Personnel and Equipment	104
10. Employer’s and Contractor’s Risks	104
11. Employer’s Risks.....	104
12. Contractor’s Risks.....	105
13. Insurance	105
14. Site Data.....	106
15. Contractor to Construct the Works	106
16. The Works to Be Completed by the Intended Completion Date	106
17. Approval by the Engineer	106
	18. Safety 106
19. Discoveries.....	106
20. Possession of the Site.....	106
21. Access to the Site	107
22. Instructions, Inspections and Audits.....	107
23. Appointment of the Adjudicator	107
24. Procedure for Disputes.....	107
25. Corrupt and Fraudulent Practices.....	108
B. Time Control.....	108
	26. Program 108
27. Extension of the Intended Completion Date.....	109
28. Acceleration	109
29. Delays Ordered by the Project Manager.....	109
30. Management Meetings.....	109
31. Early Warning.....	110
C. Quality Control	110
32. Identifying Defects.....	110
	33. Tests 110
34. Correction of Defects.....	110
35. Uncorrected Defects.....	111

D. Cost Control.....	111
36. Contract Price.....	111
37. Changes in the Contract Price.....	111
38. Variations.....	111
39. Cash Flow Forecasts.....	112
40. Payment Certificates.....	112
41. Payments.....	113
42. Compensation Events.....	113
	43. Tax 115
44. Currencies.....	115
45. Price Adjustment.....	115
46. Retention.....	116
47. Liquidated Damages.....	116
	48. Bonus 116
49. Securities.....	116
50. Day works.....	117
51. Cost of Repairs.....	117
E. Finishing the Contract.....	117
52. Completion.....	117
53. Taking Over.....	117
54. Final Account.....	117
55. Operating and Maintenance Manuals.....	118
56. Termination.....	119
57. Payment upon Termination.....	120
	58. Property 120
59. Release from Performance.....	120
Corrupt and Fraudulent Practices.....	121

General Conditions of Contract

A. General

1. Definitions

1.1 Boldface type is used to identify defined terms.

- (a) The Accepted Contract Amount means the amount accepted in the Letter of Acceptance for the execution and completion of the Works and the remedying of any defects.
- (b) The Activity Schedule is a schedule of the activities comprising the construction, installation, testing, and commissioning of the Works in a lump sum contract. It includes a lump sum price for each activity, which is used for valuations and for assessing the effects of Variations and Compensation Events.
- (c) The Adjudicator is the person appointed jointly by the Employer and the Contractor to resolve disputes in the first instance, as provided for in GCC 23.
- (d) Bank means the financial institution or SACCO.
- (e) Bill of Quantities means the priced and completed Bill of Quantities forming part of the Bid.
- (f) Compensation Events are those defined in GCC Clause 42 hereunder.
- (g) The Completion Date is the date of completion of the Works as certified by the Project Manager, in accordance with GCC Sub-Clause 53.1.
- (h) The Contract is the Contract between the Employer and the Contractor to execute, complete, and maintain the Works. It consists of the documents listed in GCC Sub-Clause 2.3 below.
- (i) The Contractor is the party whose Bid to carry out the Works has been accepted by the Employer.
- (j) The Contractor's Bid is the completed bidding document submitted by the Contractor to the Employer.
- (k) The Contract Price is the Accepted Contract Amount stated in the Letter of Acceptance and thereafter as adjusted in accordance with the Contract.
- (l) Days are calendar days; months are calendar months.

- (m) Dayworks are varied work inputs subject to payment on a time basis for the Contractor's employees and Equipment, in addition to payments for associated Materials and Plant.
- (n) A Defect is any part of the Works not completed in accordance with the Contract.
- (o) The Defects Liability Certificate is the certificate issued by Project Manager upon correction of defects by the Contractor.
- (p) The Defects Liability Period is the period **named in the PCC** pursuant to Sub-Clause 34.1 and calculated from the Completion Date.
- (q) Drawings means the drawings of the Works, as included in the Contract, and any additional and modified drawings issued by (or on behalf of) the Employer in accordance with the Contract, include calculations and other information provided or approved by the Engineer for the execution of the Contract.
- (r) The Employer is the party who employs the Contractor to carry out the Works, **as specified in the PCC**.
- (s) Equipment is the Contractor's machinery and vehicles brought temporarily to the Site to construct the Works.
- (t) "In writing" or "written" means hand-written, type-written, printed or electronically made, and resulting in a permanent record;
- (u) The Initial Contract Price is the Contract Price listed in the Employer's Letter of Acceptance.
- (v) The Intended Completion Date is the date on which it is intended that the Contractor shall complete the Works. The Intended Completion Date is **specified in the PCC**. The Intended Completion Date may be revised only by the Project Manager by issuing an extension of time or an acceleration order.
- (w) Materials are all supplies, including consumables, used by the Contractor for incorporation in the Works.
- (x) Plant is any integral part of the Works that shall have a mechanical, electrical, chemical, or biological function.
- (y) The Project Manager is the person **named in the PCC** (or any other competent person appointed by the Employer

and notified to the Contractor, to act in replacement of the Project Manager) and administering the Contract.

- (z) PCC means Particular Conditions of Contract.
- (aa) The Site is the area **defined as such in the PCC**.
- (bb) Site Investigation Reports are those that were included in the bidding documents and are factual and interpretative reports about the surface and subsurface conditions at the Site.
- (cc) Specification means the Specification of the Works included in the Contract and any modification or addition made or approved by the Project Manager.
- (dd) The Start Date is **given in the PCC**. It is the latest date when the Contractor shall commence execution of the Works. It does not necessarily coincide with any of the Site Possession Dates.
- (ee) A Subcontractor is a person or corporate body who has a Contract with the Contractor to carry out a part of the work in the Contract, which includes work on the Site.
- (ff) Temporary Works are works designed, constructed, installed, and removed by the Contractor that are needed for construction or installation of the Works.
- (gg) A Variation is an instruction given by the Project Manager which varies the Works.
- (hh) The Works are what the Contract requires the Contractor to construct, install, and turn over to the Employer, **as defined in the PCC**.
- (ii) Engineer (resident engineer is the person named in the bid who is responsible for supervising the execution of the works.)

2. Interpretation

- 2.1 In interpreting these GCC, words indicating one gender include all genders. Words indicating the singular also include the plural and words indicating the plural also include the singular. Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The Project Manager shall provide instructions clarifying queries about these GCC.
- 2.2 If sectional completion is **specified in the PCC**, references in the GCC to the Works, the Completion Date, and the Intended Completion Date apply to any Section of the Works (other than

references to the Completion Date and Intended Completion Date for the whole of the Works).

- 2.3 The documents forming the Contract shall be interpreted in the following order of priority:
- (a) Agreement,
 - (b) Letter of Acceptance,
 - (c) Contractor’s Bid,
 - (d) Particular Conditions of Contract,
 - (e) General Conditions of Contract, including Appendix,
 - (f) Specifications,
 - (g) Drawings,
 - (h) Bill of Quantities,¹⁴ and
 - (i) any other document **listed in the PCC** as forming part of the Contract.
- 3. Language and Law** 3.1 The language of the Contract and the law governing the Contract are **stated in the PCC**.
- .
- 4. Project Manager’s Decisions** 4.1 Except where otherwise specifically stated, the Project Manager shall decide contractual matters between the Employer and the Contractor in the role representing the Employer.
- 5. Delegation** 5.1 Otherwise **specified in the PCC**, the Project Manager may delegate any of his duties and responsibilities to other people, except to the Adjudicator, after notifying the Contractor, and may revoke any delegation after notifying the Contractor.
- 6. Communications** 6.1 Communications between parties that are referred to in the Conditions shall be effective only when in writing. A notice shall be effective only when it is delivered.
- 7. Subcontracting** 7.1 The Contractor may subcontract with the approval of the Project Manager, but may not assign the Contract without the approval of the Employer in writing. Subcontracting shall not alter the Contractor’s obligations.
- 8. Other Contractors** 8.1 The Contractor shall cooperate and share the Site with other contractors, public authorities, utilities, and the Employer between the dates given in the Schedule of Other Contractors, as **referred to in the PCC**. The Contractor shall also provide facilities and

¹⁴ In lump sum contracts, delete “Bill of Quantities” and replace with “Activity Schedule.”

services for them as described in the Schedule. The Employer may modify the Schedule of Other Contractors, and shall notify the Contractor of any such modification.

9. Personnel and Equipment

9.1 The Contractor shall employ the key personnel and use the equipment identified in its Bid, to carry out the Works or other personnel and equipment approved by the Engineer. The Engineer shall approve any proposed replacement of key personnel and equipment only if their relevant qualifications or characteristics are substantially equal to or better than those proposed in the Bid.

9.2 If the Engineer asks the Contractor to remove a person who is a member of the Contractor's staff or work force, stating the reasons, the Contractor shall ensure that the person leaves the Site within seven days and has no further connection with the work in the Contract.

9.3 If the Employer, Engineer or Contractor determines, that any employee of the Contractor be determined to have engaged in corrupt, fraudulent, collusive, coercive, or obstructive practice during the execution of the Works, then that employee shall be removed in accordance with Clause 9.2 above.

10. Employer's and Contractor's Risks

10.1 The Employer carries the risks which this Contract states are Employer's risks, and the Contractor carries the risks which this Contract states are Contractor's risks.

11. Employer's Risks

11.1 From the Start Date until the Defects Liability Certificate has been issued, the following are Employer's risks:

(a) The risk of personal injury, death, or loss of or damage to property (excluding the Works, Plant, Materials, and Equipment), which are due to

(i) use or occupation of the Site by the Works or for the purpose of the Works, which is the unavoidable result of the Works or

(ii) negligence, breach of statutory duty, or interference with any legal right by the Employer or by any person employed by or contracted to him except the Contractor.

(b) The risk of damage to the Works, Plant, Materials, and Equipment to the extent that it is due to a fault of the Employer or in the Employer's design, or due to war or

radioactive contamination directly affecting the country where the Works are to be executed.

11.2 From the Completion Date until the Defects Liability Certificate has been issued, the risk of loss of or damage to the Works, Plant, and Materials is an Employer's risk except loss or damage due to

- (a) a Defect which existed on the Completion Date,
- (b) an event occurring before the Completion Date, which was not itself an Employer's risk, or
- (c) the activities of the Contractor on the Site after the Completion Date.

12. Contractor's Risks

12.1 From the Starting Date until the Defects Liability Certificate has been issued, the risks of personal injury, death, and loss of or damage to property (including, without limitation, the Works, Plant, Materials, and Equipment) which are not Employer's risks are Contractor's risks.

13. Insurance

13.1 The Contractor shall provide, in the joint names of the Employer and the Contractor, insurance cover from the Start Date to the end of the Defects Liability Period, in the amounts and deductibles **stated in the PCC** for the following events which are due to the Contractor's risks:

- (a) loss of or damage to the Works, Plant, and Materials;
- (b) loss of or damage to Equipment;
- (c) loss of or damage to property (except the Works, Plant, Materials, and Equipment) in connection with the Contract; and
- (d) personal injury or death.

13.2 Policies and certificates for insurance shall be delivered by the Contractor to the Project Manager for the Project Manager's approval before the Start Date. All such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.

13.3 If the Contractor does not provide any of the policies and certificates required, the Employer may effect the insurance which the Contractor should have provided and recover the premiums the Employer has paid from payments otherwise due to the Contractor or, if no payment is due, the payment of the premiums shall be a debt due.

- 13.4 Alterations to the terms of an insurance shall not be made without the approval of the Project Manager.
- 13.5 Both parties shall comply with any conditions of the insurance policies.
- 14. Site Data**
- 14.1 The Contractor shall be deemed to have examined any Site Data **referred to in the PCC**, supplemented by any information available to the Contractor.
- 15. Contractor to Construct the Works**
- 15.1 The Contractor shall construct and install the Works in accordance with the Specifications and Drawings.
- 16. The Works to Be Completed by the Intended Completion Date**
- 16.1 The Contractor may commence execution of the Works on the Start Date and shall carry out the Works in accordance with the Program submitted by the Contractor, as updated with the approval of the Project Manager, and complete them by the Intended Completion Date.
- 17. Approval by the Engineer**
- 17.1 The Contractor shall submit Specifications and Drawings showing the proposed Temporary Works to the engineer, for his approval.
- 17.2 The Contractor shall be responsible for design of Temporary Works.
- 17.3 The Engineer's approval shall not alter the Contractor's responsibility for design of the Temporary Works.
- 17.4 The Contractor shall obtain approval of third parties to the design of the Temporary Works, where required.
- 17.5 All Drawings prepared by the Contractor for the execution of the temporary or permanent Works, are subject to prior approval by the Engineer before this use.
- 18. Safety**
- 18.1 The Contractor shall be responsible for the safety of all activities on the Site.
- 19. Discoveries**
- 19.1 Anything of historical or other interest or of significant value unexpectedly discovered on the Site shall be the property of the Employer. The Contractor shall notify the Project Manager of such discoveries and carry out the Project Manager's instructions for dealing with them.
- 20. Possession of the Site**
- 20.1 The Employer shall give possession of all parts of the Site to the Contractor. If possession of a part is not given by the date **stated in the PCC**, the Employer shall be deemed to have delayed the start of the relevant activities, and this shall be a Compensation Event.

- 21. Access to the Site** 21.1 The Contractor shall allow the Engineer and any person authorized by the Engineer access to the Site and to any place where work in connection with the Contract is being carried out or is intended to be carried out.
- 22. Instructions, Inspections and Audits** 22.1 The Contractor shall carry out all instructions of the Engineer which comply with the applicable laws where the Site is located.
- 22.2 The Contractor shall keep, and shall make all reasonable efforts to cause its Subcontractors and sub consultants to keep, accurate and systematic accounts and records in respect of the Works in such form and details as will clearly identify relevant time changes and costs.
- 22.3 The Contractor shall permit and shall cause its Subcontractors and sub consultants to permit, the Employer and/or persons appointed by the Employer to inspect the Site and/or the accounts and records relating to the performance of the Contract and the submission of the bid, and to have such accounts and records audited by auditors appointed by the Employer if requested by the Employer. The Contractor's and its Subcontractors' and sub consultants' attention is drawn to Sub-Clause 25.1 which provides, inter alia, that acts intended to materially impede the exercise of the Employer's inspection and audit rights constitute a prohibited practice subject to contract termination (as well as to a determination of ineligibility pursuant to the Employer's prevailing sanctions procedures).
- 23. Appointment of the Adjudicator** 23.1 The Adjudicator shall be appointed jointly by the Employer and the Contractor, at the time of the Employer's issuance of the Letter of Acceptance. If, in the Letter of Acceptance, the Employer does not agree on the appointment of the Adjudicator, the Employer will request the Appointing Authority **designated in the PCC**, to appoint the Adjudicator within 14 days of receipt of such request.
- 23.2 Should the Adjudicator resign or die, or should the Employer and the Contractor agree that the Adjudicator is not functioning in accordance with the provisions of the Contract, a new Adjudicator shall be jointly appointed by the Employer and the Contractor. In case of disagreement between the Employer and the Contractor, within 30 days, the Adjudicator shall be designated by the Appointing Authority **designated in the PCC** at the request of either party, within 14 days of receipt of such request.
- 24. Procedure for Disputes** 24.1 If the Contractor believes that a decision taken by the Project Manager was either outside the authority given to the Project Manager by the Contract or that the decision was wrongly taken,

the decision shall be referred to the Adjudicator within 14 days of the notification of the Project Manager's decision.

24.2 The Adjudicator shall give a decision in writing within 28 days of receipt of a notification of a dispute.

24.3 The Adjudicator shall be paid by the hour at the **rate specified in the PCC**, together with reimbursable expenses of the types **specified in the PCC**, and the cost shall be divided equally between the Employer and the Contractor, whatever decision is reached by the Adjudicator. Either party may refer a decision of the Adjudicator to an Arbitrator within 28 days of the Adjudicator's written decision. If neither party refers the dispute to arbitration within the above 28 days, the Adjudicator's decision shall be final and binding.

24.4 The arbitration shall be conducted in accordance with the arbitration procedures published by the institution named and in the place **specified in the PCC**.

25. Corrupt and Fraudulent Practices

25.1 The Employer requires compliance with Kenya in regard to corrupt and fraudulent practices.

25.2 The Employer requires the Contractor to disclose any commissions or fees that may have been paid or are to be paid to agents or any other party with respect to the bidding process or execution of the Contract. The information disclosed must include at least the name and address of the agent or other party, the amount and currency, and the purpose of the commission, gratuity or fee.

B. Time Control

26. Program

26.1 Within the time **stated in the PCC**, after the date of the Letter of Acceptance, the Contractor shall submit to the Project Manager for approval a Program showing the general methods, arrangements, order, and timing for all the activities in the Works. In the case of a lump sum contract, the activities in the Program shall be consistent with those in the Activity Schedule.

26.2 An update of the Program shall be a program showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work, including any changes to the sequence of the activities.

26.3 The Contractor shall submit to the Project Manager for approval an updated Program at intervals no longer than the period **stated in the PCC**. If the Contractor does not submit an updated Program

within this period, the Project Manager may withhold the amount **stated in the PCC** from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Program has been submitted. In the case of a lump sum contract, the Contractor shall provide an updated Activity Schedule within 14 days of being instructed to by the Project Manager.

26.4 The Project Manager's approval of the Program shall not alter the Contractor's obligations. The Contractor may revise the Program and submit it to the Project Manager again at any time. A revised Program shall show the effect of Variations and Compensation Events.

27. Extension of the Intended Completion Date

27.1 The Project Manager shall extend the Intended Completion Date if a Compensation Event occurs or a Variation is issued which makes it impossible for Completion to be achieved by the Intended Completion Date without the Contractor taking steps to accelerate the remaining work, which would cause the Contractor to incur additional cost.

27.2 The Project Manager shall decide whether and by how much to extend the Intended Completion Date within 21 days of the Contractor asking the Project Manager for a decision upon the effect of a Compensation Event or Variation and submitting full supporting information. If the Contractor has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.

28. Acceleration

28.1 When the Employer wants the Contractor to finish before the Intended Completion Date, the Project Manager shall obtain priced proposals for achieving the necessary acceleration from the Contractor. If the Employer accepts these proposals, the Intended Completion Date shall be adjusted accordingly and confirmed by both the Employer and the Contractor.

28.2 If the Contractor's priced proposals for an acceleration are accepted by the Employer, they are incorporated in the Contract Price and treated as a Variation.

29. Delays Ordered by the Project Manager

29.1 The Project Manager may instruct the Contractor to delay the start or progress of any activity within the Works.

30. Management Meetings

30.1 Either the Project Manager or the Contractor may require the other to attend a management meeting. The business of a management

meeting shall be to review the plans for remaining work and to deal with matters raised in accordance with the early warning procedure.

30.2 The Project Manager shall record the business of management meetings and provide copies of the record to those attending the meeting and to the Employer. The responsibility of the parties for actions to be taken shall be decided by the Project Manager either at the management meeting or after the management meeting and stated in writing to all who attended the meeting.

31. Early Warning 31.1 The Contractor shall warn the Project Manager at the earliest opportunity of specific likely future events or circumstances that may adversely affect the quality of the work, increase the Contract Price, or delay the execution of the Works. The Project Manager may require the Contractor to provide an estimate of the expected effect of the future event or circumstance on the Contract Price and Completion Date. The estimate shall be provided by the Contractor as soon as reasonably possible.

31.2 The Contractor shall cooperate with the Project Manager in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the Project Manager.

C. Quality Control

32. Identifying Defects 32.1 The Engineer shall check the Contractor's work and notify the Contractor of any Defects that are found. Such checking shall not affect the Contractor's responsibilities. The Engineer may instruct the Contractor to search for a Defect and to uncover and test any work that the Engineer considers may have a Defect.

33. Tests 33.1 If the Project Manager instructs the Contractor to carry out a test not specified in the Specification to check whether any work has a Defect and the test shows that it does, the Contractor shall pay for the test and any samples. If there is no Defect, the test shall be a Compensation Event.

34. Correction of Defects 34.1 The Engineer shall give notice to the Contractor of any Defects before the end of the Defects Liability Period, which begins at Completion, and is **defined in the PCC**. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.

34.2 Every time notice of a Defect is given, the Contractor shall correct the notified Defect within the length of time specified by the Project Manager's notice.

35. Uncorrected Defects

35.1 If the Contractor has not corrected a Defect within the time specified in the Engineer's notice, the Engineer shall assess the cost of having the Defect corrected, and the Contractor shall pay this amount.

D. Cost Control

36. Contract Price¹⁵

36.1 The Bill of Quantities shall contain priced items for the Works to be performed by the Contractor. The Bill of Quantities is used to calculate the Contract Price. The Contractor will be paid for the quantity of the work accomplished at the rate in the Bill of Quantities for each item.

37. Changes in the Contract Price¹⁶

37.1 If the final quantity of the work done differs from the quantity in the Bill of Quantities for the particular item by more than 25 percent, provided the change exceeds 1 percent of the Initial Contract Price, the Project Manager shall adjust the rate to allow for the change. The Project Manager shall not adjust rates from changes in quantities if thereby the Initial Contract Price is exceeded by more than 15 percent, except with the prior approval of the Employer.

37.2 If requested by the Project Manager, the Contractor shall provide the Project Manager with a detailed cost breakdown of any rate in the Bill of Quantities.

38. Variations

38.1 All Variations shall be included in updated Programs¹⁷ produced by the Contractor.

38.2 The Contractor shall provide the Project Manager with a quotation for carrying out the Variation when requested to do so by the Project Manager. The Project Manager shall assess the quotation,

¹⁵ In lump sum contracts, delete "Bill of Quantities" and replace with "Activity Schedule," and replace GCC Sub-Clauses 36.1 and 36.2, as follows:

36.1 The Contractor shall provide updated Activity Schedules within 14 days of being instructed to by the Project Manager. The activities on the Activity Schedule shall be coordinated with the activities on the Program.

36.2 The Contractor shall show delivery of Materials to the Site separately on the Activity Schedule if payment for Materials on Site shall be made separately.

¹⁶ In lump sum contracts, delete "Bill of Quantities" and replace with "Activity Schedule," and replace entire GCC Clause 37 with new GCC Sub-Clause 37.1, as follows:

37.1 The Activity Schedule shall be amended by the Contractor to accommodate changes of Program or method of working made at the Contractor's own discretion. Prices in the Activity Schedule shall not be altered when the Contractor makes such changes to the Activity Schedule.

¹⁷ In lump sum contracts, add "and Activity Schedules" after "Programs."

which shall be given within seven (7) days of the request or within any longer period stated by the Project Manager and before the Variation is ordered.

- 38.3 If the Contractor's quotation is unreasonable, the Project Manager may order the Variation and make a change to the Contract Price, which shall be based on the Project Manager's own forecast of the effects of the Variation on the Contractor's costs.
- 38.4 If the Project Manager decides that the urgency of varying the work would prevent a quotation being given and considered without delaying the work, no quotation shall be given and the Variation shall be treated as a Compensation Event.
- 38.5 The Contractor shall not be entitled to additional payment for costs that could have been avoided by giving early warning.
- 38.6 If the work in the Variation corresponds to an item description in the Bill of Quantities and if, in the opinion of the Project Manager, the quantity of work above the limit stated in Sub-Clause 39.1 or the timing of its execution do not cause the cost per unit of quantity to change, the rate in the Bill of Quantities shall be used to calculate the value of the Variation. If the cost per unit of quantity changes, or if the nature or timing of the work in the Variation does not correspond with items in the Bill of Quantities, the quotation by the Contractor shall be in the form of new rates for the relevant items of work.¹⁸

39. Cash Flow Forecasts

- 39.1 When the Program,¹⁹ is updated, the Contractor shall provide the Project Manager with an updated cash flow forecast. The cash flow forecast shall include different currencies, as defined in the Contract, converted as necessary using the Contract exchange rates.

40. Payment Certificates

- 40.1 The Contractor shall submit to the Engineer monthly statements of the estimated value of the work executed less the cumulative amount certified previously.
- 40.2 The Engineer shall check the Contractor's monthly statement and certify the amount to be paid to the Contractor.
- 40.3 The value of work executed shall be determined by the . Engineer

¹⁸ In lump sum contracts, delete this paragraph.

¹⁹ In lump sum contracts, add "or Activity Schedule" after "Program."

40.4 The value of work executed shall comprise the value of the quantities of work in the Bill of Quantities that have been completed.²⁰

40.5 The value of work executed shall include the valuation of Variations and Compensation Events.

40.6 The Project Manager may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.

41. Payments

41.1 Payments shall be adjusted for deductions for advance payments and retention. The Employer shall pay the Contractor the amounts certified by the Project Manager within 28 days of the date of each certificate. If the Employer makes a late payment, the Contractor shall be paid interest on the late payment in the next payment. Interest shall be calculated from the date by which the payment should have been made up to the date when the late payment is made at the prevailing rate of interest for commercial borrowing for each of the currencies in which payments are made.

41.2 If an amount certified is increased in a later certificate or as a result of an award by the Adjudicator or an Arbitrator, the Contractor shall be paid interest upon the delayed payment as set out in this clause. Interest shall be calculated from the date upon which the increased amount would have been certified in the absence of dispute.

41.3 Unless otherwise stated, all payments and deductions shall be paid or charged in the proportions of currencies comprising the Contract Price.

41.4 Items of the Works for which no rate or price has been entered in shall not be paid for by the Employer and shall be deemed covered by other rates and prices in the Contract.

42. Compensation Events

42.1 The following shall be Compensation Events:

- (a) The Employer does not give access to a part of the Site by the Site Possession Date pursuant to GCC Sub-Clause 20.1.
- (b) The Employer modifies the Schedule of Other Contractors in a way that affects the work of the Contractor under the Contract.

²⁰ In lump sum contracts, replace this paragraph with the following: “The value of work executed shall comprise the value of completed activities in the Activity Schedule.”

- (c) The Project Manager orders a delay or does not issue Drawings, Specifications, or instructions required for execution of the Works on time.
 - (d) The Project Manager instructs the Contractor to uncover or to carry out additional tests upon work, which is then found to have no Defects.
 - (e) The Project Manager unreasonably does not approve a subcontract to be let.
 - (f) Ground conditions are substantially more adverse than could reasonably have been assumed before issuance of the Letter of Acceptance from the information issued to bidders (including the Site Investigation Reports), from information available publicly and from a visual inspection of the Site.
 - (g) The Project Manager gives an instruction for dealing with an unforeseen condition, caused by the Employer, or additional work required for safety or other reasons.
 - (h) Other contractors, public authorities, utilities, or the Employer does not work within the dates and other constraints stated in the Contract, and they cause delay or extra cost to the Contractor.
 - (i) The advance payment is delayed.
 - (j) The effects on the Contractor of any of the Employer's Risks.
 - (k) The Project Manager unreasonably delays issuing a Certificate of Completion.
- 42.2 If a Compensation Event would cause additional cost or would prevent the work being completed before the Intended Completion Date, the Contract Price shall be increased and/or the Intended Completion Date shall be extended. The Project Manager shall decide whether and by how much the Contract Price shall be increased and whether and by how much the Intended Completion Date shall be extended.
- 42.3 As soon as information demonstrating the effect of each Compensation Event upon the Contractor's forecast cost has been provided by the Contractor, it shall be assessed by the Project Manager, and the Contract Price shall be adjusted accordingly. If the Contractor's forecast is deemed unreasonable, the Project Manager shall adjust the Contract Price based on the Project

Manager's own forecast. The Project Manager shall assume that the Contractor shall react competently and promptly to the event.

42.4 The Contractor shall not be entitled to compensation to the extent that the Employer's interests are adversely affected by the Contractor's not having given early warning or not having cooperated with the Project Manager.

43. Tax

43.1 The Project Manager shall adjust the Contract Price if taxes, duties, and other levies are changed between the date 30 days before the submission of bids for the Contract and the date of the last Completion certificate. The adjustment shall be the change in the amount of tax payable by the Contractor, provided such changes are not already reflected in the Contract Price or are a result of GCC Clause 44.

44. Currencies

44.1 Where payments are made in currencies other than the currency of the Employer's country **specified in the PCC**, the exchange rates used for calculating the amounts to be paid shall be the exchange rates stated in the Contractor's Bid.

45. Price Adjustment

45.1 Prices shall be adjusted for fluctuations in the cost of inputs only if **provided for in the PCC**. If so provided, the amounts certified in each payment certificate, before deducting for Advance Payment, shall be adjusted by applying the respective price adjustment factor to the payment amounts due in each currency. A separate formula of the type specified below applies to each Contract currency:

$$P_c = A_c + B_c \text{ Imc/Ioc}$$

where:

P_c is the adjustment factor for the portion of the Contract Price payable in a specific currency "c."

A_c and B_c are coefficients²¹ **specified in the PCC**, representing the nonadjustable and adjustable portions, respectively, of the Contract Price payable in that specific currency "c;" and

²¹ The sum of the two coefficients A_c and B_c should be 1 (one) in the formula for each currency. Normally, both coefficients shall be the same in the formulae for all currencies, since coefficient A, for the nonadjustable portion of the payments, is a very approximate figure (usually 0.15) to take account of fixed cost elements or other nonadjustable components. The sum of the adjustments for each currency are added to the Contract Price.

Imc is the index prevailing at the end of the month being invoiced and Ioc is the index prevailing 28 days before Bid opening for inputs payable; both in the specific currency “c.”

45.2 If the value of the index is changed after it has been used in a calculation, the calculation shall be corrected and an adjustment made in the next payment certificate. The index value shall be deemed to take account of all changes in cost due to fluctuations in costs.

46. Retention

46.1 The Employer shall retain from each payment due to the Contractor the proportion **stated in the PCC** until Completion of the whole of the Works.

46.2 Upon the issue of a Certificate of Completion of the Works by the Project Manager, in accordance with GCC 51.1, half the total amount retained shall be repaid to the Contractor and half when the Defects Liability Period has passed and the Project Manager has certified that all Defects notified by the Project Manager to the Contractor before the end of this period have been corrected. The Contractor may substitute retention money with an “on demand” Bank guarantee.

47. Liquidated Damages

47.1 The Contractor shall pay liquidated damages to the Employer at the rate per day **stated in the PCC** for each day that the Completion Date is later than the Intended Completion Date. The total amount of liquidated damages shall not exceed the amount **defined in the PCC**. The Employer may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor’s liabilities.

47.2 If the Intended Completion Date is extended after liquidated damages have been paid, the Project Manager shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment certificate. The Contractor shall be paid interest on the overpayment, calculated from the date of payment to the date of repayment, at the rates specified in GCC Sub-Clause 41.1.

48. Bonus

48.1 The Contractor shall be paid a Bonus calculated at the rate per calendar day **stated in the PCC** for each day (less any days for which the Contractor is paid for acceleration) that the Completion is earlier than the Intended Completion Date. The Project Manager shall certify that the Works are complete, although they may not be due to be complete.

49. Securities

49.1 The Performance Security shall be provided to the Employer no later than the date specified in the Letter of Acceptance and shall

be issued in an amount **specified in the PCC**, by a bank or surety acceptable to the Employer, and denominated in the types and proportions of the currencies in which the Contract Price is payable. The Performance Security shall be valid until a date 28 days from the date of issue of the Certificate of Completion in the case of a Bank Guarantee, and until one year from the date of issue of the Completion Certificate in the case of a Performance Bond.

- 50. Day works**
- 50.1 If applicable, the Day works rates in the Contractor's Bid shall be used only when the Project Manager has given written instructions in advance for additional work to be paid for in that way.
- 50.2 All work to be paid for as Day works shall be recorded by the Contractor on forms approved by the Project Manager. Each completed form shall be verified and signed by the Project Manager within two days of the work being done.
- 50.3 The Contractor shall be paid for Day works subject to obtaining signed Day works forms.
- 51. Cost of Repairs**
- 51.1 Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defects Correction periods shall be remedied by the Contractor at the Contractor's cost if the loss or damage arises from the Contractor's acts or omissions.

E. Finishing the Contract

- 52. Completion**
- 52.1 The Contractor shall request the Project Manager to issue a Certificate of Completion of the Works, and the Project Manager shall do so upon deciding that the whole of the Works is completed.
- 53. Taking Over**
- 53.1 The Employer shall take over the Site and the Works within seven days of the Project Manager's issuing a certificate of Completion.
- 54. Final Account**
- 54.1 The Contractor shall supply the Project Manager with a detailed account of the total amount that the Contractor considers payable under the Contract before the end of the Defects Liability Period. The Project Manager shall issue a Defects Liability Certificate and certify any final payment that is due to the Contractor within 56 days of receiving the Contractor's account if it is correct and complete. If it is not, the Project Manager shall issue within 56 days a schedule that states the scope of the corrections or additions that are necessary. If the Final Account is still unsatisfactory after it has been resubmitted, the Project Manager shall decide on the amount payable to the Contractor and issue a payment certificate.

**55. Operating and
Maintenance
Manuals**

55.1 If “as built” Drawings and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates **stated in the PCC**.

55.2 If the Contractor does not supply the Drawings and/or manuals by the dates **stated in the PCC** pursuant to GCC Sub-Clause 56.1, or they do not receive the Engineer approval, the Engineer all withhold the amount **stated in the PCC** from payments due to the Contractor.

56. Termination

- 56.1 The Employer or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract.
- 56.2 Fundamental breaches of Contract shall include, but shall not be limited to, the following:
- (a) the Contractor stops work for 28 days when no stoppage of work is shown on the current Program and the stoppage has not been authorized by the Project Manager;
 - (b) the Project Manager instructs the Contractor to delay the progress of the Works, and the instruction is not withdrawn within 28 days;
 - (c) the Employer or the Contractor is made bankrupt or goes into liquidation other than for a reconstruction or amalgamation;
 - (d) a payment certified by the Project Manager is not paid by the Employer to the Contractor within 84 days of the date of the Project Manager's certificate;
 - (e) the Project Manager gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Project Manager;
 - (f) the Contractor does not maintain a Security, which is required;
 - (g) the Contractor has delayed the completion of the Works by the number of days for which the maximum amount of liquidated damages can be paid, as **defined in the PCC**; or
 - (h) if the Contractor, in the judgment of the Employer, has engaged in corrupt, fraudulent, collusive, coercive or obstructive practices, in competing for or in executing the Contract, then the Client may, after giving fourteen (14) days written notice to the Contractor, terminate the Contract and expel him from the Site.
- 56.3 When either party to the Contract gives notice of a breach of Contract to the Project Manager for a cause other than those listed under GCC Sub-Clause 56.2 above, the Project Manager shall decide whether the breach is fundamental or not.
- 56.4 Notwithstanding the above, the Employer may terminate the Contract for convenience.

56.5 If the Contract is terminated, the Contractor shall stop work immediately, make the Site safe and secure, and leave the Site as soon as reasonably possible.

57. Payment upon Termination

57.1 If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Project Manager shall issue a certificate for the value of the work done and Materials ordered less advance payments received up to the date of the issue of the certificate and less the percentage to apply to the value of the work not completed, as **specified in the PCC**. Additional Liquidated Damages shall not apply. If the total amount due to the Employer exceeds any payment due to the Contractor, the difference shall be a debt payable to the Employer.

57.2 If the Contract is terminated for the Employer's convenience or because of a fundamental breach of Contract by the Employer, the Project Manager shall issue a certificate for the value of the work done, Materials ordered, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works, and less advance payments received up to the date of the certificate.

58. Property

58.1 All Materials on the Site, Plant, Equipment, Temporary Works, and Works shall be deemed to be the property of the Employer if the Contract is terminated because of the Contractor's default.

59. Release from Performance

59.1 If the Contract is frustrated by the outbreak of war or by any other event entirely outside the control of either the Employer or the Contractor, the Project Manager shall certify that the Contract has been frustrated. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all work carried out before receiving it and for any work carried out afterwards to which a commitment was made.

APPENDIX TO GENERAL CONDITIONS

Corrupt and Fraudulent Practices

- 2.1 The procuring entity requires that the tenderer observes the highest standard of ethics during the procurement process and execution of the contract. A tenderer shall sign a declaration that he has not and will not be involved in corrupt and fraudulent practices.
- 2.2 The procuring entity will reject a tender if it determines that the tenderer recommended for award has engaged in corrupt and fraudulent practices in competing for the contract in question.
- 2.3 Further a tenderer who is found to have indulged in corrupt and fraudulent practices risks being debarred from participating in public procurement in Kenya.

Section IX. Particular Conditions of Contract

Except where otherwise specified, all PCC should be filled in by the Employer prior to issuance of the Bidding Documents. Schedules and reports to be provided by the Employer should be annexed.

A. General	
GCC 1.1 (d)	The financing institution is: N/A
GCC 1.1 (s)	NONE
GCC 1.1 (v)	The Intended Completion Date for the whole of the Works shall be Six (6) months
GCC 1.1 (y)	The Project Manager is THE MANAGER LIMURU DAIRY FARMERS COOPERATIVE SOCIETY
GCC 1.1 (aa)	The Site is located in Limuru Town Kiambu County
GCC 1.1 (dd)	The Start Date after signing of contract
GCC 1.1 (hh)	The Works consist of Proposed Finance, Design, Procure, Construct, Install, Test, Commission, Operate and Maintain, And Train Relevant Staff Under a Build Own Operate and Transfer (Boot) A 150 Kw Solar Grid Tie System (PPA)
GCC 2.2	Sectional Completions are: N/A
GCC 2.3(i)	The following documents also form part of the Contract: N/A
GCC 3.1	The language of the contract is English The law that applies to the Contract is the law of the Republic of Kenya
GCC 5.1	The Project manager may delegate any of his duties and responsibilities to the Engineer
GCC 8.1	Schedule of other contractors: to be inserted subject to approval of Engineer
GCC 13.1	The minimum insurance amounts and deductibles shall be: (a) for loss or damage to the Works, Plant and Materials: Equivalent to the value of works, Plants and Materials (b) For loss or damage to Equipment: Equivalent to the value of Equipment

	(c) for loss or damage to property (except the Works, Plant, Materials, and Equipment) in connection with Contract Equivalent to the value of Property (d) for personal injury or death: (i) of the Contractor's employees: As per the Laws of Kenya (ii) of other people: As per the Laws of Kenya
GCC 14.1	Site Data are: As per the drawings and site visit
GCC 20.1	The Site Possession Date(s) shall be: to be inserted after award during contract signature
GCC 23.1 & GCC 23.2	Appointing Authority for the Adjudicator: Institution of Chartered Arbitrators of Kenya
GCC 24.3	Hourly rate and types of reimbursable expenses to be paid to the Adjudicator: Ksh. 2,500.00
GCC 24.4	Institution whose arbitration procedures shall be used: Institution of Chartered Arbitrators of Kenya the place of arbitration shall be: Nairobi, Kenya
B. Time Control	
GCC 26.1	The Contractor shall submit for approval a Program for the Works within 14 days from the date of the Letter of Acceptance.
GCC 26.3	The period between Program updates is 30 days . The amount to be withheld for late submission of an updated Program is N/A
C. Quality Control	
GCC 34.1	The Defects Liability Period is: N/A
D. Cost Control	
GCC 44.1	The currency of the Employer's country is: Kenya Shillings
GCC 45.1	The Contract is not subject to price adjustment in accordance with GCC Clause 45, and the following information regarding coefficients does not apply.
GCC 46.1	The proportion of payments retained is: N/A

GCC 47.1	The liquidated damages for the whole of the Works are 0.05% of the final Contract Price per day. The maximum amount of liquidated damages for the whole of the Works 1% of the final Contract Price.
GCC 48.1	The Bonus for the whole of the Works is 0% of final Contract Price per day. The maximum amount of Bonus for the whole of the Works is 0% of the final Contract Price.
GCC 49.1	The Performance Security amount is [insert amount(s) denominated in the types and proportions of the currencies in which the Contract Price is payable, or in a freely convertible currency acceptable to the Employer] (a) Performance Bond: 2% of the contract price
E. Finishing the Contract	
GCC 55.1	The date by which operating and maintenance manuals are required is 7 days on completion of works The date by which “as built” drawings are required is 7 days on completion of works
GCC 55.2	The amount to be withheld for failing to produce “as built” drawings and/or operating and maintenance manuals by the date required in GCC 55.1 is Kenya Shillings Five Hundred Thousand Only
GCC 57.2	The maximum number of days is: 30 days
GCC 58.1	The percentage to apply to the value of the work not completed, representing the Employer’s additional cost for completing the Works, is 10%

Section X - Contract Forms

This Section contains forms which, once completed, will form part of the Contract. The forms for Performance Security, when required, shall only be completed by the successful Bidder after contract award.

Table of Forms

Contract Agreement	128
PERFORMANCE SECURITY (BANK GUARANTEE).....	130

REPUBLIC OF KENYA



**LIMURU DAIRY FARMERS COOPERATIVE SOCIETY
LTD.
LIMURU SUBCOUNTY**

Letter of Acceptance

[Date].

To:
.
.
.

(Name and address of the Contractor)

Subject: **Notification of Award Contract**

- a) This is to notify you that your Bid dated for execution of the **Proposed Finance, Design, Procure, Construct, Install, Test, Commission, Operate and Maintain, And Train Relevant Staff Under a Build Own Operate and Transfer (Boot) A 150 Kw Solar Grid Tie System (PPA)** for the Accepted Contract Amount of **Ksh. [Kenya Shillings.....]**, per kilowatt unit according to the PPA agreement and contract period to Build, Own, Operate and Transfer (BOOT) that isYears as corrected and modified in accordance with the Instructions to Bidders is hereby accepted by Limuru Dairy.

You are requested to furnish the Performance Security within 30 days in accordance with the Conditions of Contract, using for that purpose the of the Performance Security Form included in Section X (Contract Forms) of the Bidding Document.

[Choose one of the following statements:]

We accept that _____ **[insert the name of Adjudicator proposed by the Bidder]** be appointed as the Adjudicator.

[or]

We do not accept that _____ **[insert the name of the Adjudicator proposed by the Bidder]** be appointed as the Adjudicator, and by sending a copy of this Letter of Acceptance to _____ **[insert name of the Appointing Authority]**, the Appointing Authority, we are hereby requesting such Authority to appoint the Adjudicator in accordance with ITB 43.1 and GCC 23.1.

Authorized Signature:

Name and Title of Signatory:

Name of Agency:

Attachment: Contract Agreement

Contract Agreement

THIS AGREEMENT made this.day of,, between **LIMURU DAIRY FARMERS COOPERATIVE SOCIETY** (hereinafter “the Employer”), of the one part, and
.....
[name of the Contractor].(hereinafter “the Contractor”), of the other part:

WHEREAS the Employer desires that the Works known as **LIMURU DAIRY FARMERS COOPERATIVE SOCIETY Project:- Finance, Design, Procure, Construct, Install, Test, Commission, Operate And Maintain, And Train Relevant Staff Under A Build Own Operate And Transfer (Boot) A 150 Kw Solar Grid Tie System (PPA)** . Should be executed by the Contractor, and has accepted a Bid by the Contractor for the execution and completion of these Works , the , operation, maintenance and remedying of any defects therein,

The Employer and the Contractor agree as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Contract documents referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement. This Agreement shall prevail over all other Contract documents.
 - (i) the Letter of Acceptance
 - (ii) the Letter of Bid
 - (iii) the addenda Nos _____
 - (iv) the Particular Conditions
 - (v) the General Conditions of Contract, including appendix;
 - (vi) the Specification
 - (vii) the Drawings
 - (viii) Bill of Quantities; and
 - (ix) any other document **listed in the PCC** as forming part of the Contract,
3. In consideration of the payments to be made by the Employer to the Contractor as specified in this Agreement, the Contractor hereby covenants with the Employer to execute the Works and to remedy defects therein in conformity in all respects with the provisions of the Contract.

4. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of Kenya on the day, month and year specified above.

Signed by: Signed by:

.....

.....

for and on behalf of the Employer

for and on behalf the Contractor

In the presence of:

in the presence of:

.....

.....

Witness, Name, Signature, Address, Date

Witness, Name, Signature, Address, Date

PERFORMANCE SECURITY (BANK GUARANTEE)

(BANK GUARANTEE)

[Guarantor letterhead or SWIFT identifier code]

Beneficiary: **LIMURU DAIRY FARMERS COOPERATIVE SOCIETY Project:- of P.O. Box8- 00217, Limuru**

Date:

PERFORMANCE GUARANTEE No.:

Guarantor: [Insert name and address of place of issue, unless indicated in the letterhead]

We have been informed that _ [insert name of Contractor, which in the case of a joint venture shall be the name of the joint venture] (hereinafter called "the Applicant") has entered into

Contract No. **QUOTATION N0: LDFCS 7/2023**

dated with the Beneficiary, for the execution of **LIMURU DAIRY FARMERS COOPERATIVE SOCIETY : - Finance, Design, Procure, Construct, Install, Test, Commission, Operate and Maintain, And Train Relevant Staff Under a Build Own Operate and Transfer (Boot) A 150 Kw Solar Grid Tie System (PPA)** (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, a performance guarantee is required.

At the request of the Applicant, we as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of **Kenya Shillings.....(Ksh.....)**, such sum being payable in the types and proportions of currencies in which the Contract Price is payable, upon receipt by us of the Beneficiary's complying demand supported by the Beneficiary's statement, whether in the demand itself or in a separate signed document accompanying or identifying the demand, stating that the Applicant is in breach of its obligation(s) under the Contract, without the Beneficiary needing to prove or to show grounds for your demand or the sum specified therein.

This guarantee shall expire, no later than the Day of, 2...², and any demand for payment under it must be received by us at this office indicated above on or before that date.

² *Insert the date twenty-eight days after the expected completion date as described in GC Clause 53.1. The Employer should note that in the event of an extension of this date for completion of the Contract, the Employer would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee. In preparing this guarantee, the*

This guarantee is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 Revision, ICC Publication No. 758, except that the supporting statement under Article 15(a) is hereby excluded.

[signature(s)]

Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.

Employer might consider adding the following text to the form, at the end of the penultimate paragraph: "The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [six months][one year], in response to the Beneficiary's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee."

