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**TERMS OF REFERENCE FOR ENGAGEMENT OF AN ENGINEERING,  
PROCUREMENT, CONSTRUCTION, FINANCING, AND OPERATIONS  
& MAINTENANCE (EPC+F+O&M) CONTRACTOR FOR CONSTRUCTION OF  
5MW GUTU SOLAR PROJECT**

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**January 2025**

## **1.0 About the Organisation**

### **1.1 Infrastructure and Development Bank of Zimbabwe**

The Infrastructure and Development Bank of Zimbabwe (IDBZ) was formed on the 31<sup>st</sup> of August 2005, taking over the assets and liabilities of the former Zimbabwe Development Bank (“ZDB”). It was primarily set up as a vehicle for the promotion of economic development and growth, and improvement of the living standards of Zimbabweans through the development of infrastructure, which includes but not limited to energy, transport, water and sanitation, information communication technology (ICT) and housing. The Bank is also enjoined to develop institutional capacity in undertakings and enterprises involved in infrastructure development in Zimbabwe (IDBZ Act (Chapter 24:14). The Bank, therefore, operates primarily as an infrastructure development finance institution (DFI).

#### ***Vision Statement***

A Zimbabwe with a robust, inclusive and sustainable growth and development

#### ***Mission Statement***

To champion sustainable infrastructure development through: mobilization of resources; capacity building; and knowledge generation and sharing in support of national efforts for inclusive socio-economic development

#### ***Corporate Values***

IDBZ intends to be the preferred development partner in sustainable infrastructure development. To this end, it will be guided by the following values:

- *Integrity* - The Bank undertakes its work in a transparent and honest manner that seeks to deliver value to customers.
- *Professionalism* - Our work will be characterized by high quality, expert knowledge and proficiency.
- *Innovation* - We challenge ourselves continuously to improve what we do, how we do it and how well we work together.
- *Service Orientation* - Our clients come first in all that we do, and we undertake our work with passion and time-consciousness.
- *Sustainability* – We support initiatives that are technically feasible, financially and economically viable and socially equitable.
- *Knowledge generation and sharing* – We provide outstanding leadership and service through knowledge generation, sharing and advocacy.

### **1.2 Gutu Rural District Council**

Gutu Rural District Council (GRDC) is a rural local authority established in terms of subsection (1) of Section 8 of the Rural District Councils Act, Chapter 29:13. Gutu district is the third largest district in Masvingo province, South of Zimbabwe, after Chiredzi and Mwenezi. It is the northernmost district in the province.

### 1.2.1 Chatsworth

Chatsworth is a small settlement in the Masvingo Province of Zimbabwe. It is located about 58 km north of Masvingo on the Masvingo-Gweru railway line. The settlement started in 1911 as a railway station. It administered under the Gutu Rural District Council.

#### Chatsworth Energy (Pvt) Ltd

Chatsworth Energy (Pvt) Ltd is a Special Purpose Vehicle (SPV) formed by IDBZ and GRDC to spearhead the development and implementation of a 20MW solar power plant (the project) at a piece of land to be availed by GRDC at Chatsworth within Gutu District.

## 2.0 Background and Context

The Infrastructure and Development Bank of Zimbabwe (IDBZ/the Bank) partnered with Gutu Rural District Council (GRDC), as project sponsors, to develop, construct and operate a 5MW Solar Power Generation Plant at Berry Springs and Wheatlands Farms in Gutu District, Masvingo Province. The project is being undertaken by Chatsworth Energy (Private) Limited, a Special Purpose Vehicle (SPV) created by the Bank to undertake the project. The project site measures 15ha in extent and is 8km to the north of Gutu-Mupandawana town. The 5MW Gutu Solar Project will connect to the 33/11 kV Gutu substation located 1km from the project site and owned and managed by Zimbabwe Electricity Transmission and Distribution Company (ZETDC) Eastern Region.

A Grid Impact Assessment (GIA) conducted by ZETDC indicated that the project would have a positive impact on the grid. A detailed Bankable Feasibility study which included an ESIA study and was co-funded by the IDBZ and AFD was undertaken by SOWITEC Kenya Limited (consultant from Kenya) in partnership MAZEDECK Ventures (Pvt) Limited (Zimbabwe consultant firm). This study concluded that the project is technically feasible, financially viable and can be implemented in a socially and environmentally sustainable manner.

The project status is as indicated in the table below;

Milestone	Status	Comment
Project Preparation and Packaging including Feasibility & ESIA- studies, Regulatory and Statutory Approvals	Done	
Board Approval	Obtained	23/08/2024
EPC Contractor Tendering and Contract Signing	Outstanding	Tendering in progress
Resource Mobilisation	Outstanding	In progress
Site Establishment and Commencement of Works	Outstanding	Pending Appointment of EPC Contractor

Testing, Commissioning and Handover of Project.	Outstanding	Pending Commencement of Works
Operation and Maintenance Contractor	Outstanding	Pending Appointment of EPC Contractor

Chatsworth Energy (Pvt) Ltd is now inviting companies that have proven experience in engineering, procurement, construction, financing, commissioning, operation and maintenance of solar projects.

### 3.0 Purpose

The purpose of this Request for Proposal (RFP) is to engage a suitably qualified turnkey Engineering, Procurement, and Construction plus Financing plus Operation & Maintenance (EPC+F+OM) contractor to design, construct, finance, and operate a 20MW solar plant at Chatsworth, Gutu District.

### 4.0 Location

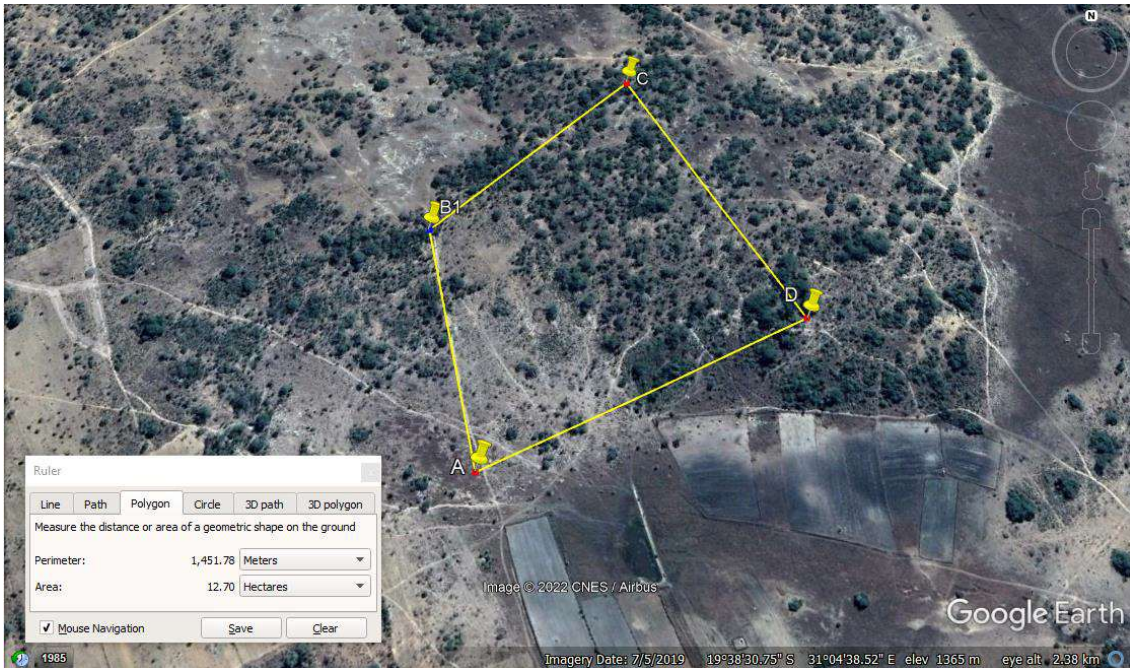
The project shall be implemented at Berry Springs and Wheatlands Farms in Gutu District, Masvingo Province of Zimbabwe (see diagram with coordinates below).

Point A – 19° 38' 36``S, 31° 4' 35``E

Point B - 19° 38' 26.25``S, 31° 4' 32.62``E

Point C – 19° 38' 19``S, 31° 4' 41``E

Point D - 19° 38' 30``S, 31° 4' 48``E



<b>Applied Capacity</b>	5MW: (active power at delivery point)
<b>Connection Point</b>	Gutu 33/11kV Substation

<b>Connection Plant and Equipment</b>	Construction of 1.1km 33kV line from Solar Plant to Gutu 33/11kV Substation as per ZETDC Standards and Specifications.
	Design, Supply, Construction, Testing and Commissioning of Outdoor 33kV Incomer Bay complete with metering, protection, control equipment and Sync check relay at Gutu substation.
	Design, Supply, Construction, Testing and Commissioning of Outdoor 33kV Feeder Bay at PV Solar Plant complete with metering, protection and control equipment.
	Design, Supply, Construction, Testing and Commissioning of Outdoor 0.4/33kV, 5/7MVA Step Up Transformer Bay complete with metering, protection and control equipment.
	Design, Supply, Construction, Testing and Commissioning of the Solar PV Power Plant capable of delivering 5MW at connection point with ZETDC.
<b>Quality Parameters</b>	<b>Voltage value:</b> 33kV
	<b>Frequency:</b> 50Hz
	<b>Phase Angle difference:</b> None

## 5.0 Project Description

The proposed 15-hectare solar plant site straddles Berry Springs and Wheatlands Farms in Gutu District, Masvingo Province in Zimbabwe. The site is approximately 8km from the Mupandawana Town along the Mupandawana-Chatsworth Road. The project entails the design, financing, supply, installation, commissioning, operation and maintenance of a 5MW solar power plant and all ancillary infrastructure (guardroom, offices, storeroom). The generated electricity will be fed directly into the national grid. The project is currently at the implementation stage with all regulatory and statutory approvals in place. Below are the project parameters: -

## 6.0 Objectives

The main objective of these Services is to implement the turnkey EPC+F+OM project in a technically feasible, financially viable, environmentally and socially sustainable manner, and in full compliance with both the Zimbabwe legal and regulatory requirements and internationally accepted standards applicable to solar power projects.

Specific objectives of the assignment are:

- i) To prepare a detailed design of the ground-mounted grid-tied 5MW Solar PV system and associated infrastructure of the project;
- ii) To Provide or mobilise financing, **in full or partially**, for project implementation. The Employer (Chatsworth Energy (Pvt) Ltd may mobilise additional financing required if the turnkey EPC+F+OM contractor proposes to finance partially.
- iii) To procure, supply and deliver to site all materials required for the project.
- iv) To install all the required equipment and construct all associated infrastructure.
- v) To provide a comprehensive solution, including financing, for the project.

- vi) To assess and install the physical and cyber security systems of the site to prevent unauthorised access to the area.
- vii) To review the grid compatibility and grid connection options proposed by the Consultants who did the Feasibility Studies.
- viii) To Commission, operate and maintain solar PV system and ancillary infrastructure.
- ix) To contribute to the growth of renewable energy in Zimbabwe and reduce reliance on non-renewable energy sources.
- x) To ensure the successful construction, operation, and maintenance of the solar plant, with a focus on reliability, efficiency, and safety.
- xi)

## **7.0 Scope of Work**

### **7.1 General**

The turnkey Contractor for the 5MW solar plant shall be responsible for all aspects of the detailed engineering investigations, design, manufacture, permitting, procurement, supply shipping and importation, delivery, storage, construction, labour, supervision, proper staffing, all costs related and applicable for general conditions, erection, installation, commissioning, testing of the complete Project and operating it. The contractor shall also be expected to finance the project partially or in full and therefore must submit a detailed Term Sheet.

### **7.2 Specific Scope of services**

. The Contractor shall undertake the following scope of works:

- i) Submitting the Program of Works (PoW) within agreed timelines.
- ii) Providing a suitable organogram for project execution.
- iii) Sourcing or providing funding for implementation of the project, in full or partially, and availing proof of the availability of such funding.
- iv) Submitting all relevant system Single Line Diagrams (SLD), drawings, SPV system performance certificates, etc. to ZETDC/Chatsworth Energy for review and approval.
- v) Producing designs for all ancillary facilities (guardrooms, offices, storeroom).
- vi) Undertaking project planning, sequencing, scheduling, project component selection, preparing engineering and construction drawings, obtaining all relevant statutory and regulatory approvals, and all other requirements for commissioning and interconnecting the 5MW Gutu Solar PV Power Plant to the existing electrical substation which is 1.1 km from the project site.
- vii) Procuring all required materials and transporting same to the site.

- viii) Making suitable arrangements for Chatsworth Energy and/or its representatives to witness Factory Acceptance Test (FAT) of the equipment. The Contractor shall provide not less than thirty (30) days advance notice for factory inspection along with required documentation for Chatsworth Energy's approval.
- ix) Putting in place mechanisms for quality assurance and control.
- x) Making own security arrangements for material storage. The storage space shall be provided by Chatsworth Energy. The contractor must make suitable accommodation arrangements for its own and its sub-contractor's (if applicable) employees during construction and O&M period.
- xi) Fencing off of the project site with approved galvanised 2.5 mm diamond mesh or equivalent.
- xii) Providing the Data logger (both software and hardware) to monitor solar irradiation at tilt, module temperature, inverter parameters and export energy.
- xiii) Construction of the entire solar PV plant, undertake all pre-construction tests, site management, testing and commissioning of the plant and works. All installations shall be designed and installed to facilitate inspection, cleaning and maintenance and to ensure continued operation under conditions prevailing at the site.
- xiv) Putting in place clear signage and labels on site. The contractor should undertake all the operations not expressly included that are necessary for proper functioning of the Plant and fulfilment of the guaranteed performance, rules, regulations, and applicable codes.
- xv) Undertaking all pre- and post-commissioning tests of the solar PV plant. Comprehensively warranting the entire solar PV plant against all defects through the Defects Liability Period (DLP) and O&M services, transfer all component warranties, spare parts and tools and tackles to Chatsworth Energy post the DLP and O&M period.
- xvi) Removing left-over construction materials and debris from site within one month after the Commercial Operation Date (CoD).
- xvii) Operation and Maintenance of the PV plant from the date of commissioning up to the expiry of the concession period (including Defect liability Period). Thereafter, the O & M function will be handed over to Chatsworth Energy. During the Defect Liability Period and O&M period, the Contractor shall supply all necessary equipment/spares, materials, and manpower for replacement of faulty equipment at their own cost.

The project implementation should be undertaken in accordance with relevant national laws and regulations as well as in compliance with international best practices.

## **6.0 Obligations of the Parties**

### **6.1 Obligations of the Contractor**

The Contractor shall be entirely responsible for:

- i) Carrying out the Scope of Work as indicated in Section 5 above, including performance of any services to be undertaken by any subcontractors.
- ii) Inclusion of experts as outlined in section 7.1 below and any additional key experts it considers essential for the execution of the assignment.

- iii) Ensuring inclusion of both male and female experts in the project team.
- iv) Timely execution of work assigned to it.
- v) Close collaboration with Chatsworth Energy (Pvt) Ltd in undertaking the assignment.

## 6.2 Obligations of the Client

Chatsworth Energy (Pvt) Ltd (the Client) shall be responsible for:

- i) Availing of land for carrying out the project.
- ii) Provision of the required project information and all relevant project documents.
- iii) Provision of a focal person for the project.
- iv) Assisting in obtaining the necessary and relevant work permits.

## 7.0. Eligibility Criteria

The EPC+F+OM Contractor should:

- i) Have successfully designed and implemented a similar grid-tied Solar PV project within the last ten (10) years.  
Submit reference letters on letterhead plus copies of project completion certificates

### Evaluation Criteria

S/N	Summary of Technical Proposal Evaluation Forms	Weight	
1	Expertise of the Firm	10%	
	<i>Reputation of Organization and Staff / Credibility / Reliability / Industry Standing</i>	1%	
	<i>General Organizational Capability which is likely to affect implementation</i> - Financial Stability - Loose consortium, Holding company or One firm - Age/size of the firm - Strength of the Project Management Support - Project Financing Capacity - Project Management Control	3%	
	<i>Extent to which any work would be subcontracted (subcontracting carries additional risks which may affect project implementation, but properly done it offers a chance to access specialized skills.)</i>	1%	
	<i>Quality assurance procedure, warranty</i>	1%	
	<i>Relevance of:</i> - Specialized Knowledge - Experience on Similar Programme / Projects	4%	



	- <i>Experience on Projects in the SADC Region</i> - <i>Work for major multilateral development and/or financial institutions</i>		
2	Proposed Methodology and Implementation Plan	20%	
	<i>To what degree does the Proposer understand the task?</i>	20%	
	<i>Have the important aspects of the task been addressed in sufficient detail?</i>	10%	
	<i>Are the different components of the project adequately weighted relative to one another?</i>	10%	
3	Management Structure and Key Personnel	10%	
	<i>Team Leader</i>	10%	
	<i>Team Members</i>	10%	
4	Occupational Health and Safety Plan	10%	
	<i>Is there an appropriate plan in the proposal including:</i> — <i>Personal Protective Equipment (5%)</i> — <i>Training (5%)</i> — <i>Site access (2.5%)</i> — <i>Responsibilities (2.5%)</i> — <i>Incident and accident reporting (SHEQ) (2.5%)</i> — <i>Signage (2.5%)</i> —		
5	Financial	50%	
	<i>Term Sheet</i>		

The Term Sheet below shall be used at a minimum.

### Scoring Guidelines

Unfavourable	Neutral	Positive	Beneficial	Highly Beneficial	Extremely Advantageous
0-25%	25%-49%	50%-59%	60%-69%	70%-89%	90%-100%

Item	Item Description	Proposal
1	Project Cost (USD) <i>The bidder shall submit their financial proposal comprising of all the costs associated with project preparation and construction of the cluster housing units.</i>	
2	Project Duration	
3	Proposed Deal Structure	
4	Financing Offered	
5	Debt/Equity Amount	
6	Currency	
7	Name of Lender	
8	Interest Rate on Capital	
9	Upfront Fee <i>(If Applicable)</i>	
10	Commitment Fee <i>(If Applicable)</i>	
11	Advisor Costs <i>(If Applicable)</i>	
12	Debt Tenor	
13	Grace Period / Moratorium on Capital	
14	Repayment Terms for preferred financing option	
15	Collateral/Security	

### 7.1 Technical Staff Requirements

The Construction works to be undertaken by the Contractor require inter-disciplinary expertise. The key skills required in conducting the works include, but not limited to:

- i) Power Plant Engineer,

- ii) Civil Engineer,
- iii) Solar Energy Technician/Artisan/Solar Photovoltaic Installer,
- iv) Solar O&M Engineer/Technician/Artisan.

The Contractor may propose additional expertise as required.

#### **7.1.1 Power Plant Engineer**

A recognised Bachelor's degree in power plant/mechanical/electrical/electro-mechanical engineering, or in a related field and should be registered with a relevant engineering body. At least five (5) years' experience in projects of a similar nature. Must have knowledge of relevant design packages.

#### **7.1.2 Solar Energy Technician/ Solar Photovoltaic Installer**

At least a recognised professional certificate in renewable energy. At least three (3) years relevant experience in solar installations and maintenance. Experience in configuring, installing, wiring photovoltaic solar systems, including the electrical wiring and fixtures, connecting solar systems to the local power grid, and performing necessary testing to ensure their safety and efficiency.

#### **7.1.3 Civil Engineer**

Degree in civil engineering from a recognised university. At least five (5) years' experience in a relevant field and should be a member of a recognised professional body.

#### **7.1.4 Solar O&M Engineer/ Technician/Artisan- Senior Authorisation to Operate at 33kV Level**

A relevant bachelor's degree/diploma/certificate from a recognised university/college/institution. At least five (5) years' experience in scheduling and execution of preventive and predictive maintenance. Should be able to perform electric, hydraulic, mechanical and software component inspections, testing, repair, and troubleshooting, in accordance with its specifications. Knowledge of National Electrical Code and standard design/construction practices required.

*Attach detailed CVs for all key personnel.*

To complement the above-mentioned staff, the Contractor shall propose additional appropriately qualified and experienced full and/or part-time support staff to fulfil the requirements of the assignment and these Terms of Reference.

## **8.0 Financial Evaluation Criteria**

- I) Duly signed letters of availability of funding or funding support from reputable Banks or Financial Institutions.
- II) Bid validity period (minimum of 90 days)
- III) Term Sheet
- IV) The Term Sheet shall include the following information at a minimum:

The currency of bidding is United States Dollars

Bidding price must be inclusive of VAT.

## **8.0 Time frame**

The Contractor shall install and commission the system within 12 months from the date of signing the contract.