

# **PHILIPPINE BIDDING DOCUMENTS**

(As Harmonized with Development Partners)

"Supply of Labor and Materials for the Upgrading of Gold Building Phase VI to Include the Installation of a 78.1 kWp Grid Tied Solar Photovoltaic (PV) System"

Government of the Republic of the Philippines

**August 2023**

# Preface

These Philippine Bidding Documents (PBDs) for the procurement of Infrastructure Projects (hereinafter referred to also as the “Works”) through Competitive Bidding have been prepared by the Government of the Philippines for use by all branches, agencies, departments, bureaus, offices, or instrumentalities of the government, including government-owned and/or -controlled corporations, government financial institutions, state universities and colleges, local government units, and autonomous regional government. The procedures and practices presented in this document have been developed through broad experience, and are for mandatory use in projects that are financed in whole or in part by the Government of the Philippines or any foreign government/foreign or international financing institution in accordance with the provisions of the 2016 revised Implementing Rules and Regulations (IRR) of Republic Act (RA) No. 9184.

The PBDs are intended as a model for admeasurements (unit prices or unit rates in a bill of quantities) types of contract, which are the most common in Works contracting.

The Bidding Documents shall clearly and adequately define, among others: (i) the objectives, scope, and expected outputs and/or results of the proposed contract; (ii) the eligibility requirements of Bidders; (iii) the expected contract duration; and (iv) the obligations, duties, and/or functions of the winning Bidder.

Care should be taken to check the relevance of the provisions of the PBDs against the requirements of the specific Works to be procured. If duplication of a subject is inevitable in other sections of the document prepared by the Procuring Entity, care must be exercised to avoid contradictions between clauses dealing with the same matter.

Moreover, each section is prepared with notes intended only as information for the Procuring Entity or the person drafting the Bidding Documents. They shall not be included in the final documents. The following general directions should be observed when using the documents:

- a. All the documents listed in the Table of Contents are normally required for the procurement of Infrastructure Projects. However, they should be adapted as necessary to the circumstances of the particular Project.
- b. Specific details, such as the “*name of the Procuring Entity*” and “*address for bid submission*,” should be furnished in the Instructions to Bidders, Bid Data Sheet, and Special Conditions of Contract. The final documents should contain neither blank spaces nor options.
- c. This Preface and the footnotes or notes in italics included in the Invitation to Bid, BDS, General Conditions of Contract, Special Conditions of Contract, Specifications, Drawings, and Bill of Quantities are not part of the text of the final document, although they contain instructions that the Procuring Entity should strictly follow.
- d. The cover should be modified as required to identify the Bidding Documents as to the names of the Project, Contract, and Procuring Entity, in addition to date of issue.

- e. Modifications for specific Procurement Project details should be provided in the Special Conditions of Contract as amendments to the Conditions of Contract. For easy completion, whenever reference has to be made to specific clauses in the Bid Data Sheet or Special Conditions of Contract, these terms shall be printed in bold typeface on Sections I (Instructions to Bidders) and III (General Conditions of Contract), respectively.
- f. For guidelines on the use of Bidding Forms and the procurement of Foreign-Assisted Projects, these will be covered by a separate issuance of the Government Procurement Policy Board.

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# *Glossary of Terms, Abbreviations, and Acronyms*

**ABC** – Approved Budget for the Contract.

**ARCC** – Allowable Range of Contract Cost.

**BAC** – Bids and Awards Committee.

**Bid** – A signed offer or proposal to undertake a contract submitted by a bidder in response to and in consonance with the requirements of the bidding documents. Also referred to as *Proposal* and *Tender*. (2016 revised IRR, Section 5[c])

**Bidder** – Refers to a contractor, manufacturer, supplier, distributor and/or consultant who submits a bid in response to the requirements of the Bidding Documents. (2016 revised IRR, Section 5[d])

**Bidding Documents** – The documents issued by the Procuring Entity as the bases for bids, furnishing all information necessary for a prospective bidder to prepare a bid for the Goods, Infrastructure Projects, and/or Consulting Services required by the Procuring Entity. (2016 revised IRR, Section 5[e])

**BIR** – Bureau of Internal Revenue.

**BSP** – Bangko Sentral ng Pilipinas.

**CDA** – Cooperative Development Authority.

**Consulting Services** – Refer to services for Infrastructure Projects and other types of projects or activities of the GOP requiring adequate external technical and professional expertise that are beyond the capability and/or capacity of the GOP to undertake such as, but not limited to: (i) advisory and review services; (ii) pre-investment or feasibility studies; (iii) design; (iv) construction supervision; (v) management and related services; and (vi) other technical services or special studies. (2016 revised IRR, Section 5[i])

**Contract** – Refers to the agreement entered into between the Procuring Entity and the Supplier or Manufacturer or Distributor or Service Provider for procurement of Goods and Services; Contractor for Procurement of Infrastructure Projects; or Consultant or Consulting Firm for Procurement of Consulting Services; as the case may be, as recorded in the Contract Form signed by the parties, including all attachments and appendices thereto and all documents incorporated by reference therein.

**Contractor** – is a natural or juridical entity whose proposal was accepted by the Procuring Entity and to whom the Contract to execute the Work was awarded. Contractor as used in these Bidding Documents may likewise refer to a supplier, distributor, manufacturer, or consultant.

**CPI** – Consumer Price Index.

**DOLE** – Department of Labor and Employment.

**DTI** – Department of Trade and Industry.

**Foreign-funded Procurement or Foreign-Assisted Project** – Refers to procurement whose funding source is from a foreign government, foreign or international financing institution as specified in the Treaty or International or Executive Agreement. (2016 revised IRR, Section 5[b]).

**GFI** – Government Financial Institution.

**GOCC** – Government-owned and/or –controlled corporation.

**Goods** – Refer to all items, supplies, materials and general support services, except Consulting Services and Infrastructure Projects, which may be needed in the transaction of public businesses or in the pursuit of any government undertaking, project or activity, whether in the nature of equipment, furniture, stationery, materials for construction, or personal property of any kind, including non-personal or contractual services such as the repair and maintenance of equipment and furniture, as well as trucking, hauling, janitorial, security, and related or analogous services, as well as procurement of materials and supplies provided by the Procuring Entity for such services. The term “related” or “analogous services” shall include, but is not limited to, lease or purchase of office space, media advertisements, health maintenance services, and other services essential to the operation of the Procuring Entity. (2016 revised IRR, Section 5[r])

**GOP** – Government of the Philippines.

**Infrastructure Projects** – Include the construction, improvement, rehabilitation, demolition, repair, restoration or maintenance of roads and bridges, railways, airports, seaports, communication facilities, civil works components of information technology projects, irrigation, flood control and drainage, water supply, sanitation, sewerage and solid waste management systems, shore protection, energy/power and electrification facilities, national buildings, school buildings, hospital buildings, and other related construction projects of the government. Also referred to as *civil works or works*. (2016 revised IRR, Section 5[u])

**LGUs** – Local Government Units.

**NFCC** – Net Financial Contracting Capacity.

**NGA** – National Government Agency.

**PCAB** – Philippine Contractors Accreditation Board.

**PhilGEPS** - Philippine Government Electronic Procurement System.

**Procurement Project** – refers to a specific or identified procurement covering goods, infrastructure project or consulting services. A Procurement Project shall be described, detailed, and scheduled in the Project Procurement Management Plan prepared by the agency which shall be consolidated in the procuring entity's Annual Procurement Plan. (GPPB Circular No. 06-2019 dated 17 July 2019)

**PSA** – Philippine Statistics Authority.

**SEC** – Securities and Exchange Commission.

**SLCC** – Single Largest Completed Contract.

**UN** – United Nations.



## ***Section I. Invitation to Bid***

### **Notes on the Invitation to Bid**

The Invitation to Bid (IB) provides information that enables potential Bidders to decide whether to participate in the procurement at hand. The IB shall be posted in accordance with Section 21.2 of the 2016 revised IRR of RA No. 9184.

Apart from the essential items listed in the Bidding Documents, the IB should also indicate the following:

- a. The date of availability of the Bidding Documents, which shall be from the time the IB is first advertised/posted until the deadline for the submission and receipt of bids;
- b. The place where the Bidding Documents may be acquired or the website where it may be downloaded;
- c. The deadline for the submission and receipt of bids; and
- d. Any important bid evaluation criteria.

The IB should be incorporated into the Bidding Documents. The information contained in the IB must conform to the Bidding Documents and in particular to the relevant information in the Bid Data Sheet.

## ***Metals Industry Research and Development Center***

1. The *Metals Industry Research Development Center*, through the *Locally Funded infra project for CY2023-* intends to apply the sum of ***Four Million Three Hundred Twenty Three Thousand Twenty Three Pesos (PhP4,300,023.00)*** being the Approved Budget for the Contract (ABC) to payments under the contract for “*Supply of Labor and Materials for the Upgrading of Gold Building Phase VI to Include the Installation of a 78.1 kWp Grid Tied Solar Photovoltaic (PV) System*”, and the ***Project Identification Number is 23081272***. Bids received in excess of the ABC shall be automatically rejected at bid opening.
2. The *Metals Industry Research Development Center* now invites bids for the above Procurement Project. Completion of the Works is required *One Hundred Twenty (120) calendar days*. Bidders should have completed a contract similar to the Project. The description of an eligible bidder is contained in the Bidding Documents, particularly, in Section II (Instructions to Bidders).
3. Bidding will be conducted through open competitive bidding procedures using non-discretionary “*pass/fail*” criterion as specified in the 2016 revised Implementing Rules and Regulations (IRR) of Republic Act (RA) No. 9184.
4. Interested bidders may obtain further information from ***Ms. Grace B. Opon or Ms. Kristine A. Gealan, BAC Secretariat, DOST-MIRDC*** and inspect the Bidding Documents at the address given below from ***7:00AM to 4:00PM***.
5. A complete set of Bidding Documents may be acquired by interested bidders on ***10 August 2023, 09:00AM*** from given address and website/s below and *upon payment of the applicable fee for the Bidding Documents, pursuant to the latest Guidelines issued by the GPPB, in the amount of Four Thousand Three Hundred One Pesos (PhP4,301.00)*. The Procuring Entity shall allow the bidder to present its proof of payment for the fees *in person or through electronic means*.
6. The *Metals Industry Research and Development Center* will hold a Pre-Bid Conference<sup>1</sup> on ***22 August 2023, 01:00PM***, *via face to face* which shall be open to prospective bidders.
7. Bids must be duly received by the BAC Secretariat through: (i) manual submission at the office address as indicated below, on or before ***04 September 2023, 01:00PM***. Late bids shall not be accepted.
8. All bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in ***ITB*** Clause 16.
9. Bid opening shall be on ***04 September 2023, 01:00PM*** at the given address below ***Mercury Conference Room, 3<sup>rd</sup> Floor, MIRDC Gold Building, MIRDC Compound, Bicutan, Taguig City***

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<sup>1</sup> May be deleted in case the ABC is less than One Million Pesos (PhP1,000,000) where the Procuring Entity may not hold a pre-bid conference.

Bids will be opened in the presence of the bidders' representative who choose to attend the activity.

4. *The Bidders shall submit Four (4) sets of their Eligibility/Technical Documents and Financial Documents which are contained in two separately sealed envelopes, properly marked. All Four (4) sets will be wrapped together by a manila paper, properly marked, signed and sealed. For walked in participant, only one (1) representative per bidder is allowed.*
10. The *Metals Industry Research and Development Center* reserves the right to reject any and all bids, declare a failure of bidding, or not award the contract at any time prior to contract award in accordance with Sections 35.6 and 41 of the 2016 revised Implementing Rules and Regulations (IRR) of RA No. 9184, without thereby incurring any liability to the affected bidder or bidders.
11. For further information, please refer to:

Sgd.

**ENGR. RODNEL O. TAMAYO**

BAC Chairperson

Metals Industry Research and Development Center

[bac@mirdc.dost.gov.ph](mailto:bac@mirdc.dost.gov.ph)

Tel. No. 837-0431 local 450

Fax No. 839-1721

12. You may visit the following websites:

For downloading of Bidding Documents: [www.mirdc.dost.gov.ph](http://www.mirdc.dost.gov.ph)

*Approved for Posting:*

Sgd.

**Engr. Robert O. Dizon**

*Executive Director*

## ***Section II. Instructions to Bidders***

### **Notes on the Instructions to Bidders**

This Section on the Instruction to Bidders (ITB) provides the information necessary for bidders to prepare responsive bids, in accordance with the requirements of the Procuring Entity. It also provides information on bid submission, eligibility check, opening and evaluation of bids, post-qualification, and on the award of contract.

## **1. Scope of Bid**

The Procuring Entity, *Metals Industry Research and Development Center* invites Bids for the *as stated in the ITB*, with Project Identification Number *as stated in the ITB*.

*[Note: The Project Identification Number is assigned by the Procuring Entity based on its own coding scheme and is not the same as the PhilGEPS reference number, which is generated after the posting of the bid opportunity on the PhilGEPS website.]*

The Procurement Project (referred to herein as “Project”) is for the construction of Works, as described in Section VI (Specifications).

## **2. Funding Information**

2.1. The GOP through the source of funding as indicated below for *as stated in the ITB* in the amount of *as stated in the ITB*.

2.2. The source of funding is:

*As stated in the ITB paragraph number one (1).*

## **3. Bidding Requirements**

The Bidding for the Project shall be governed by all the provisions of RA No. 9184 and its 2016 revised IRR, including its Generic Procurement Manual and associated policies, rules and regulations as the primary source thereof, while the herein clauses shall serve as the secondary source thereof.

Any amendments made to the IRR and other GPPB issuances shall be applicable only to the ongoing posting, advertisement, or invitation to bid by the BAC through the issuance of a supplemental or bid bulletin.

The Bidder, by the act of submitting its Bid, shall be deemed to have inspected the site, determined the general characteristics of the contracted Works and the conditions for this Project, such as the location and the nature of the work; (b) climatic conditions; (c) transportation facilities; (c) nature and condition of the terrain, geological conditions at the site communication facilities, requirements, location and availability of construction aggregates and other materials, labor, water, electric power and access roads; and (d) other factors that may affect the cost, duration and execution or implementation of the contract, project, or work and examine all instructions, forms, terms, and project requirements in the Bidding Documents.

## **4. Corrupt, Fraudulent, Collusive, Coercive, and Obstructive Practices**

The Procuring Entity, as well as the Bidders and Contractors, shall observe the highest standard of ethics during the procurement and execution of the contract. They or through an agent shall not engage in corrupt, fraudulent, collusive, coercive, and obstructive practices defined under Annex “I” of the 2016 revised IRR of RA No. 9184 or other integrity violations in competing for the Project.

## 5. Eligible Bidders

- 5.1. Only Bids of Bidders found to be legally, technically, and financially capable will be evaluated.
- 5.2. The Bidder must have an experience of having completed a Single Largest Completed Contract (SLCC) that is similar to this Project, equivalent to at least fifty percent (50%) of the ABC adjusted, if necessary, by the Bidder to current prices using the PSA's CPI, except under conditions provided for in Section 23.4.2.4 of the 2016 revised IRR of RA No. 9184.

A contract is considered to be "similar" to the contract to be bid if it has the major categories of work stated in the **BDS**.

- 5.3. For Foreign-funded Procurement, the Procuring Entity and the foreign government/foreign or international financing institution may agree on another track record requirement, as specified in the Bidding Document prepared for this purpose.
- 5.4. The Bidders shall comply with the eligibility criteria under Section 23.4.2 of the 2016 IRR of RA No. 9184.

## 6. Origin of Associated Goods

There is no restriction on the origin of Goods other than those prohibited by a decision of the UN Security Council taken under Chapter VII of the Charter of the UN.

## 7. Subcontracts

- 7.1. The Bidder may subcontract portions of the Project to the extent allowed by the Procuring Entity as stated herein, but in no case more than fifty percent (50%) of the Project.

The Procuring Entity has prescribed that:

- a. Subcontracting is allowed. The portions of Project and the maximum percentage allowed to be subcontracted are indicated in the **BDS**, which shall not exceed fifty percent (50%) of the contracted Works.
- 7.1. *[If Procuring Entity has determined that subcontracting is allowed during the bidding, state:]* The Bidder must submit together with its Bid the documentary requirements of the subcontractor(s) complying with the eligibility criterial stated in **ITB** Clause 5 in accordance with Section 23.4 of the 2016 revised IRR of RA No. 9184 pursuant to Section 23.1 thereof.
  - 7.2. *[If subcontracting is allowed during the contract implementation stage, state:]* The Supplier may identify its subcontractor during the contract implementation stage. Subcontractors identified during the bidding may be changed during the implementation of this Contract. Subcontractors must submit the documentary

requirements under Section 23.1 of the 2016 revised IRR of RA No. 9184 and comply with the eligibility criteria specified in **ITB** Clause 5 to the implementing or end-user unit.

- 7.3. Subcontracting of any portion of the Project does not relieve the Contractor of any liability or obligation under the Contract. The Supplier will be responsible for the acts, defaults, and negligence of any subcontractor, its agents, servants, or workmen as fully as if these were the Contractor's own acts, defaults, or negligence, or those of its agents, servants, or workmen.

## **8. Pre-Bid Conference**

The Procuring Entity will hold a pre-bid conference for this Project on the specified date and time through videoconferencing/webcasting as indicated in paragraph 6 of the **ITB**.

## **9. Clarification and Amendment of Bidding Documents**

Prospective bidders may request for clarification on and/or interpretation of any part of the Bidding Documents. Such requests must be in writing and received by the Procuring Entity, either at its given address or through electronic mail indicated in the **ITB**, at least ten (10) calendar days before the deadline set for the submission and receipt of Bids.

## **10. Documents Comprising the Bid: Eligibility and Technical Components**

- 10.1. The first envelope shall contain the eligibility and technical documents of the Bid as specified in **Section IX. Checklist of Technical and Financial Documents**.
- 10.2. If the eligibility requirements or statements, the bids, and all other documents for submission to the BAC are in foreign language other than English, it must be accompanied by a translation in English, which shall be authenticated by the appropriate Philippine foreign service establishment, post, or the equivalent office having jurisdiction over the foreign bidder's affairs in the Philippines. For Contracting Parties to the Apostille Convention, only the translated documents shall be authenticated through an apostille pursuant to GPPB Resolution No. 13-2019 dated 23 May 2019. The English translation shall govern, for purposes of interpretation of the bid.
- 10.3. A valid PCAB License is required, and in case of joint ventures, a valid special PCAB License, and registration for the type and cost of the contract for this Project. Any additional type of Contractor license or permit shall be indicated in the **BDS**.
- 10.4. A List of Contractor's key personnel (e.g., Project Manager, Project Engineers, Materials Engineers, and Foremen) assigned to the contract to be bid, with their complete qualification and experience data shall be provided. These key personnel must meet the required minimum years of experience set in the **BDS**.

- 10.5. A List of Contractor's major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership, certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case may be, must meet the minimum requirements for the contract set in the **BDS**.

## **11. Documents Comprising the Bid: Financial Component**

- 11.1. The second bid envelope shall contain the financial documents for the Bid as specified in **Section IX. Checklist of Technical and Financial Documents**.
- 11.2. Any bid exceeding the ABC indicated in paragraph 1 of the **IB** shall not be accepted.
- 11.3. For Foreign-funded procurement, a ceiling may be applied to bid prices provided the conditions are met under Section 31.2 of the 2016 revised IRR of RA No. 9184.

## **12. Alternative Bids**

Bidders shall submit offers that comply with the requirements of the Bidding Documents, including the basic technical design as indicated in the drawings and specifications. Unless there is a value engineering clause in the **BDS**, alternative Bids shall not be accepted.

## **13. Bid Prices**

All bid prices for the given scope of work in the Project as awarded shall be considered as fixed prices, and therefore not subject to price escalation during contract implementation, except under extraordinary circumstances as determined by the NEDA and approved by the GPPB pursuant to the revised Guidelines for Contract Price Escalation guidelines.

## **14. Bid and Payment Currencies**

- 14.1. Bid prices may be quoted in the local currency or tradeable currency accepted by the BSP at the discretion of the Bidder. However, for purposes of bid evaluation, Bids denominated in foreign currencies shall be converted to Philippine currency based on the exchange rate as published in the BSP reference rate bulletin on the day of the bid opening.

- 14.2. *Payment of the contract price shall be made in:*

- a. Philippine Pesos.



## 15. Bid Security

- 15.1. The Bidder shall submit a Bid Securing Declaration or any form of Bid Security in the amount indicated in the **BDS**, which shall be not less than the percentage of the ABC in accordance with the schedule in the **BDS**.
- 15.2. The Bid and bid security shall be valid until *[indicate date]*. Any bid not accompanied by an acceptable bid security shall be rejected by the Procuring Entity as non-responsive.

## 16. Sealing and Marking of Bids

Each Bidder shall submit one copy of the first and second components of its Bid.

The Procuring Entity may request additional hard copies and/or electronic copies of the Bid. However, failure of the Bidders to comply with the said request shall not be a ground for disqualification.

If the Procuring Entity allows the submission of bids through online submission to the given website or any other electronic means, the Bidder shall submit an electronic copy of its Bid, which must be digitally signed. An electronic copy that cannot be opened or is corrupted shall be considered non-responsive and, thus, automatically disqualified.

## 17. Deadline for Submission of Bids

The Bidders shall submit on the specified date and time and either at its physical address or through online submission as indicated in paragraph 7 of the **IB**.

## 18. Opening and Preliminary Examination of Bids

- 18.1. The BAC shall open the Bids in public at the time, on the date, and at the place specified in paragraph 9 of the **IB**. The Bidders' representatives who are present shall sign a register evidencing their attendance. In case videoconferencing, webcasting or other similar technologies will be used, attendance of participants shall likewise be recorded by the BAC Secretariat.

In case the Bids cannot be opened as scheduled due to justifiable reasons, the rescheduling requirements under Section 29 of the 2016 revised IRR of RA No. 9184 shall prevail.

- 18.2. The preliminary examination of Bids shall be governed by Section 30 of the 2016 revised IRR of RA No. 9184.

## 19. Detailed Evaluation and Comparison of Bids

- 19.1. The Procuring Entity's BAC shall immediately conduct a detailed evaluation of all Bids rated "*passed*" using non-discretionary pass/fail criteria. The BAC shall consider the conditions in the evaluation of Bids under Section 32.2 of 2016 revised IRR of RA No. 9184.

- 19.2. If the Project allows partial bids, all Bids and combinations of Bids as indicated in the **BDS** shall be received by the same deadline and opened and evaluated simultaneously so as to determine the Bid or combination of Bids offering the lowest calculated cost to the Procuring Entity. Bid Security as required by **ITB** Clause 16 shall be submitted for each contract (lot) separately.
- 19.3. In all cases, the NFCC computation pursuant to Section 23.4.2.6 of the 2016 revised IRR of RA No. 9184 must be sufficient for the total of the ABCs for all the lots participated in by the prospective Bidder.

## **20. Post Qualification**

Within a non-extendible period of five (5) calendar days from receipt by the Bidder of the notice from the BAC that it submitted the Lowest Calculated Bid, the Bidder shall submit its latest income and business tax returns filed and paid through the BIR Electronic Filing and Payment System (eFPS), and other appropriate licenses and permits required by law and stated in the **BDS**.

## **21. Signing of the Contract**

The documents required in Section 37.2 of the 2016 revised IRR of RA No. 9184 shall form part of the Contract. Additional Contract documents are indicated in the **BDS**.

## ***Section III. Bid Data Sheet***

### **Notes on the Bid Data Sheet (BDS)**

The Bid Data Sheet (BDS) consists of provisions that supplement, amend, or specify in detail, information, or requirements included in the ITB found in Section II, which are specific to each procurement.

This Section is intended to assist the Procuring Entity in providing the specific information in relation to corresponding clauses in the ITB and has to be prepared for each specific procurement.

The Procuring Entity should specify in the BDS information and requirements specific to the circumstances of the Procuring Entity, the processing of the procurement, and the bid evaluation criteria that will apply to the Bids. In preparing the BDS, the following aspects should be checked:

- a. Information that specifies and complements provisions of the ITB must be incorporated.
- b. Amendments and/or supplements, if any, to provisions of the ITB as necessitated by the circumstances of the specific procurement, must also be incorporated.

# Bid Data Sheet

ITB Clause							
5.2	For this purpose, contracts similar to the Project refer to contracts which have the same major categories of work, which shall be: <i>[provide description/clarification of what are major categories of work].</i>						
7.1	<i>[Specify the portions of Works and the maximum percentage allowed to be subcontracted, which shall not be significant or material components of the Project as determined by the Procuring Entity.]</i>						
10.3	<i>[Specify if another Contractor license or permit is required. ]</i>						
10.4	The key personnel must meet the required minimum years of experience set below: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;"><u>Key Personnel</u></th> <th style="text-align: center;"><u>General Experience</u></th> <th style="text-align: center;"><u>Relevant Experience</u></th> </tr> </thead> <tbody> <tr> <td style="height: 20px;"> </td> <td> </td> <td> </td> </tr> </tbody> </table>	<u>Key Personnel</u>	<u>General Experience</u>	<u>Relevant Experience</u>			
<u>Key Personnel</u>	<u>General Experience</u>	<u>Relevant Experience</u>					
10.5	The minimum major equipment requirements are the following: <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="text-align: center;"><u>Equipment</u></th> <th style="text-align: center;"><u>Capacity</u></th> <th style="text-align: center;"><u>Number of Units</u></th> </tr> </thead> <tbody> <tr> <td style="height: 20px;"> </td> <td> </td> <td> </td> </tr> </tbody> </table>	<u>Equipment</u>	<u>Capacity</u>	<u>Number of Units</u>			
<u>Equipment</u>	<u>Capacity</u>	<u>Number of Units</u>					
12	<i>[Insert Value Engineering clause if allowed.]</i>						
15.1	The bid security shall be in the form of a Bid Securing Declaration or any of the following forms and amounts: <ul style="list-style-type: none"> <li>a. The amount of not less than _____ <i>[Insert two percent (2%) of ABC]</i>, if bid security is in cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit;</li> <li>b. The amount of not less than _____ <i>[Insert five percent (5%) of ABC]</i> if bid security is in Surety Bond.</li> </ul>						
19.2	Partial bids are allowed, as follows: <i>[Insert grouping of lots by specifying the items and the quantity for every identified lot.]</i>						
20	<i>[List licenses and permits relevant to the Project and the corresponding law requiring it, e.g. Environmental Compliance Certificate, Certification that the project site is not within a geohazard zone, etc.]</i>						
21	Additional contract documents relevant to the Project that may be required by existing laws and/or the Procuring Entity, such as construction schedule and S-curve, manpower schedule, construction methods, equipment utilization schedule, construction safety and health program approved by the DOLE, and other acceptable tools of project scheduling.						

## ***Section IV. General Conditions of Contract***

### **Notes on the General Conditions of Contract**

The General Conditions of Contract (GCC) in this Section, read in conjunction with the Special Conditions of Contract in Section V and other documents listed therein, should be a complete document expressing all the rights and obligations of the parties.

Matters governing performance of the Contractor, payments under the contract, or matters affecting the risks, rights, and obligations of the parties under the contract are included in the GCC and Special Conditions of Contract.

Any complementary information, which may be needed, shall be introduced only through the Special Conditions of Contract.

## 1. **Scope of Contract**

This Contract shall include all such items, although not specifically mentioned, that can be reasonably inferred as being required for its completion as if such items were expressly mentioned herein. All the provisions of RA No. 9184 and its 2016 revised IRR, including the Generic Procurement Manual, and associated issuances, constitute the primary source for the terms and conditions of the Contract, and thus, applicable in contract implementation. Herein clauses shall serve as the secondary source for the terms and conditions of the Contract.

This is without prejudice to Sections 74.1 and 74.2 of the 2016 revised IRR of RA No. 9184 allowing the GPPB to amend the IRR, which shall be applied to all procurement activities, the advertisement, posting, or invitation of which were issued after the effectivity of the said amendment.

## 2. **Sectional Completion of Works**

If sectional completion is specified in the **Special Conditions of Contract (SCC)**, references in the Conditions of Contract to the Works, the Completion Date, and the Intended Completion Date shall apply to any Section of the Works (other than references to the Completion Date and Intended Completion Date for the whole of the Works).

## 3. **Possession of Site**

4.1. The Procuring Entity shall give possession of all or parts of the Site to the Contractor based on the schedule of delivery indicated in the **SCC**, which corresponds to the execution of the Works. If the Contractor suffers delay or incurs cost from failure on the part of the Procuring Entity to give possession in accordance with the terms of this clause, the Procuring Entity's Representative shall give the Contractor a Contract Time Extension and certify such sum as fair to cover the cost incurred, which sum shall be paid by Procuring Entity.

4.2. If possession of a portion is not given by the above date, the Procuring Entity will be deemed to have delayed the start of the relevant activities. The resulting adjustments in contract time to address such delay may be addressed through contract extension provided under Annex "E" of the 2016 revised IRR of RA No. 9184.

## 4. **The Contractor's Obligations**

The Contractor shall employ the key personnel named in the Schedule of Key Personnel indicating their designation, in accordance with **ITB** Clause 10.3 and specified in the **BDS**, to carry out the supervision of the Works.

The Procuring Entity will approve any proposed replacement of key personnel only if their relevant qualifications and abilities are equal to or better than those of the personnel listed in the Schedule.

## 5. **Performance Security**

- 5.1. Within ten (10) calendar days from receipt of the Notice of Award from the Procuring Entity but in no case later than the signing of the contract by both parties, the successful Bidder shall furnish the performance security in any of the forms prescribed in Section 39 of the 2016 revised IRR.
- 5.2. The Contractor, by entering into the Contract with the Procuring Entity, acknowledges the right of the Procuring Entity to institute action pursuant to RA No. 3688 against any subcontractor be they an individual, firm, partnership, corporation, or association supplying the Contractor with labor, materials and/or equipment for the performance of this Contract.

## **6. Site Investigation Reports**

The Contractor, in preparing the Bid, shall rely on any Site Investigation Reports referred to in the SCC supplemented by any information obtained by the Contractor.

## **7. Warranty**

- 7.1. In case the Contractor fails to undertake the repair works under Section 62.2.2 of the 2016 revised IRR, the Procuring Entity shall forfeit its performance security, subject its property(ies) to attachment or garnishment proceedings, and perpetually disqualify it from participating in any public bidding. All payables of the GOP in his favor shall be offset to recover the costs.
- 7.2. The warranty against Structural Defects/Failures, except that occasioned-on force majeure, shall cover the period from the date of issuance of the Certificate of Final Acceptance by the Procuring Entity. Specific duration of the warranty is found in the SCC.

## **8. Liability of the Contractor**

Subject to additional provisions, if any, set forth in the SCC, the Contractor's liability under this Contract shall be as provided by the laws of the Republic of the Philippines.

If the Contractor is a joint venture, all partners to the joint venture shall be jointly and severally liable to the Procuring Entity.

## **9. Termination for Other Causes**

Contract termination shall be initiated in case it is determined *prima facie* by the Procuring Entity that the Contractor has engaged, before, or during the implementation of the contract, in unlawful deeds and behaviors relative to contract acquisition and implementation, such as, but not limited to corrupt, fraudulent, collusive, coercive, and obstructive practices as stated in ITB Clause 4.

## **10. Dayworks**

Subject to the guidelines on Variation Order in Annex “E” of the 2016 revised IRR of RA No. 9184, and if applicable as indicated in the **SCC**, the Dayworks rates in the Contractor’s Bid shall be used for small additional amounts of work only when the Procuring Entity’s Representative has given written instructions in advance for additional work to be paid for in that way.

## **11. Program of Work**

11.1. The Contractor shall submit to the Procuring Entity’s Representative for approval the said Program of Work showing the general methods, arrangements, order, and timing for all the activities in the Works. The submissions of the Program of Work are indicated in the **SCC**.

11.2. The Contractor shall submit to the Procuring Entity’s Representative for approval an updated Program of Work at intervals no longer than the period stated in the **SCC**. If the Contractor does not submit an updated Program of Work within this period, the Procuring Entity’s Representative may withhold the amount stated in the **SCC** from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Program of Work has been submitted.

## **12. Instructions, Inspections and Audits**

The Contractor shall permit the GOP or the Procuring Entity to inspect the Contractor’s accounts and records relating to the performance of the Contractor and to have them audited by auditors of the GOP or the Procuring Entity, as may be required.

## **13. Advance Payment**

The Procuring Entity shall, upon a written request of the Contractor which shall be submitted as a Contract document, make an advance payment to the Contractor in an amount not exceeding fifteen percent (15%) of the total contract price, to be made in lump sum, or at the most two installments according to a schedule specified in the **SCC**, subject to the requirements in Annex “E” of the 2016 revised IRR of RA No. 9184.

## **14. Progress Payments**

The Contractor may submit a request for payment for Work accomplished. Such requests for payment shall be verified and certified by the Procuring Entity’s Representative/Project Engineer. Except as otherwise stipulated in the **SCC**, materials and equipment delivered on the site but not completely put in place shall not be included for payment.



## **15. Operating and Maintenance Manuals**

- 15.1. If required, the Contractor will provide “as built” Drawings and/or operating and maintenance manuals as specified in the **SCC**.
- 15.2. If the Contractor does not provide the Drawings and/or manuals by the dates stated above, or they do not receive the Procuring Entity’s Representative’s approval, the Procuring Entity’s Representative may withhold the amount stated in the **SCC** from payments due to the Contractor.

## ***Section V. Special Conditions of Contract***

### **Notes on the Special Conditions of Contract**

Similar to the BDS, the clauses in this Section are intended to assist the Procuring Entity in providing contract-specific information in relation to corresponding clauses in the GCC found in Section IV.

The Special Conditions of Contract (SCC) complement the GCC, specifying contractual requirements linked to the special circumstances of the Procuring Entity, the Procuring Entity's country, the sector, and the Works procured. In preparing this Section, the following aspects should be checked:

- a. Information that complements provisions of the GCC must be incorporated.
- b. Amendments and/or supplements to provisions of the GCC as necessitated by the circumstances of the specific purchase, must also be incorporated.

However, no special condition which defeats or negates the general intent and purpose of the provisions of the GCC should be incorporated herein.

## Special Conditions of Contract

GCC Clause	
2	<i>[If different dates are specified for completion of the Works by section, i.e. “sectional completion,” these dates should be listed here.]</i>
4.1	<i>[Specify the schedule of delivery of the possession of the site to the Contractor, whether full or in part.]</i>
6	The site investigation reports are: <i>[list here the required site investigation reports.]</i>
7.2	<p><i>[Select one, delete the other.]</i></p> <p><i>[In case of permanent structures, such as buildings of types 4 and 5 as classified under the National Building Code of the Philippines and other structures made of steel, iron, or concrete which comply with relevant structural codes (e.g., DPWH Standard Specifications), such as, but not limited to, steel/concrete bridges, flyovers, aircraft movement areas, ports, dams, tunnels, filtration and treatment plants, sewerage systems, power plants, transmission and communication towers, railway system, and other similar permanent structures:]</i> Fifteen (15) years.</p> <p><i>[In case of semi-permanent structures, such as buildings of types 1, 2, and 3 as classified under the National Building Code of the Philippines, concrete/asphalt roads, concrete river control, drainage, irrigation lined canals, river landing, deep wells, rock causeway, pedestrian overpass, and other similar semi-permanent structures:]</i> Five (5) years.</p> <p><i>[In case of other structures, such as bailey and wooden bridges, shallow wells, spring developments, and other similar structures:]</i> Two (2) years.</p>
10	<p><i>[Select one, delete the other:]</i></p> <p style="padding-left: 40px;">a. Dayworks are applicable at the rate shown in the Contractor’s original Bid.</p> <p style="padding-left: 40px;">b. No dayworks are applicable to the contract.</p>
11.1	The Contractor shall submit the Program of Work to the Procuring Entity’s Representative within <i>[insert number]</i> days of delivery of the Notice of Award.
11.2	The amount to be withheld for late submission of an updated Program of Work is <i>[insert amount]</i> .
13	The amount of the advance payment is <i>[insert amount as percentage of the contract price that shall not exceed 15% of the total contract price and schedule of payment]</i> .
14	<i>[If allowed by the Procuring Entity, state:]</i> Materials and equipment delivered on the site but not completely put in place shall be included for payment.
15.1	The date by which operating and maintenance manuals are required is <i>[date]</i> .

	The date by which “as built” drawings are required is <i>[date]</i> .
15.2	The amount to be withheld for failing to produce “as built” drawings and/or operating and maintenance manuals by the date required is <i>[amount in local currency]</i> .

## *Section VI. Specifications*

### **Notes on Specifications**

A set of precise and clear specifications is a prerequisite for Bidders to respond realistically and competitively to the requirements of the Procuring Entity without qualifying or conditioning their Bids. In the context of international competitive bidding, the specifications must be drafted to permit the widest possible competition and, at the same time, present a clear statement of the required standards of workmanship, materials, and performance of the goods and services to be procured. Only if this is done will the objectives of economy, efficiency, and fairness in procurement be realized, responsiveness of Bids be ensured, and the subsequent task of bid evaluation facilitated. The specifications should require that all goods and materials to be incorporated in the Works be new, unused, of the most recent or current models, and incorporate all recent improvements in design and materials unless provided otherwise in the Contract.

Samples of specifications from previous similar projects are useful in this respect. The use of metric units is mandatory. Most specifications are normally written specially by the Procuring Entity or its representative to suit the Works at hand. There is no standard set of Specifications for universal application in all sectors in all regions, but there are established principles and practices, which are reflected in these PBDs.

There are considerable advantages in standardizing General Specifications for repetitive Works in recognized public sectors, such as highways, ports, railways, urban housing, irrigation, and water supply, in the same country or region where similar conditions prevail. The General Specifications should cover all classes of workmanship, materials, and equipment commonly involved in construction, although not necessarily to be used in a particular Works Contract. Deletions or addenda should then adapt the General Specifications to the particular Works.

Care must be taken in drafting specifications to ensure that they are not restrictive. In the specification of standards for goods, materials, and workmanship, recognized international standards should be used as much as possible. Where other particular standards are used, whether national standards or other standards, the specifications should state that goods, materials, and workmanship that meet other authoritative standards, and which ensure substantially equal or higher quality than the standards mentioned, will also be acceptable. The following clause may be inserted in the SCC.

#### **Sample Clause: Equivalency of Standards and Codes**

Wherever reference is made in the Contract to specific standards and codes to be met by the goods and materials to be furnished, and work performed or tested, the provisions of the latest current edition or revision of the relevant standards and codes in effect shall apply, unless otherwise expressly stated in the Contract. Where such standards and codes are national, or relate to a particular country or region, other authoritative standards that ensure a substantially equal or higher quality than the standards and codes specified will be accepted

subject to the Procuring Entity's Representative's prior review and written consent. Differences between the standards specified and the proposed alternative standards shall be fully described in writing by the Contractor and submitted to the Procuring Entity's Representative at least twenty-eight (28) days prior to the date when the Contractor desires the Procuring Entity's Representative's consent. In the event the Procuring Entity's Representative determines that such proposed deviations do not ensure substantially equal or higher quality, the Contractor shall comply with the standards specified in the documents.

These notes are intended only as information for the Procuring Entity or the person drafting the Bidding Documents. They should not be included in the final Bidding Documents.

Republic of the Philippines  
Department of Science and  
Technology  
**METALS INDUSTRY RESEARCH AND  
DEVELOPMENT CENTER**  
Gen. Santos Ave., Bicutan, Taguig, Metro Manila

## ***TERMS OF REFERENCE***

SUPPLY OF LABOR AND MATERIALS FOR THE UPGRADING OF GOLD BUILDING PHASE VI TO INCLUDE THE INSTALLATION OF A 78.1 kWp GRID TIED SOLAR PHOTOVOLTAIC (PV) SYSTEM

### **BACKGROUND**

The Metals Industry Research and Development Center (MIRDC) is currently upgrading its facilities to further improve and mold its technical research services to provide support to the metals and engineering industry.

As part of the ongoing upgrading works of the Gold Building and in compliance with the Government Guidelines and Republic Act (RA) No. 11285, otherwise known as the Energy Efficiency and Conservation (EEC) Act of 2018 and its Implementing Rules and Regulations (IRR), MIRDC shall initiate the installation of a grid-tied solar PV system with the goal of reducing its annual electricity consumption by at least 10%. In addition, the following are the objectives of the PV system; a. maintain a reliable power source to the existing system, b. utilize renewable energy for greener energy production, and c. reduce carbon footprint through optimized power management.

## ***I. PROJECT DESCRIPTION***

### a) Project Name

“SUPPLY OF LABOR AND MATERIALS FOR THE UPGRADING OF GOLD BUILDING PHASE VI TO INCLUDE THE INSTALLATION OF a 78.1 kWp GRID TIED SOLAR PHOTOVOLTAIC (PV) SYSTEM”

### b) Implementing Agency:

Metals Industry Research and Development  
Center Gen. Santos Ave., Bicutan. Taguig City

## ***ii. DURATION OF CONTRACT***

The overall period for the Project is One Hundred Twenty (120) calendar days from the date of acceptance of the Notice to Proceed (NTP).



### **III. GENERAL CONDITIONS**

- 3.1 The CONTRACTOR shall supply labor, materials, tools, and equipment, necessary for the installation of Grid Tied PV System with a capacity of 78.1 kWp with the following conditions:
- 3.1.1 Conduct Ocular / Site Inspection prior to the submission of the Bid, gain access to the site, and consider all other factors affecting the execution and completion of the works.
  - 3.1.2 The plans, detailed drawings and specifications, BOQ, and TOR shall be considered as complementing each other so that what is mentioned or shown in one, although not mentioned in the others, shall be considered as appearing in all. In case of conflict, the same should be referred to the designing Engineer for resolution with the approval of MIRDC.
  - 3.1.3 The CONTRACTOR shall supply and provide all labor, materials, tools, and equipment, including power and water, transportation, and other facility services related to the PROJECT, in accordance with the issued plans, drawings, schedule, technical specifications, and other related contract documents necessary to prosecute the work to completion.
  - 3.1.4 During the execution period, access to the site will only be permitted during weekdays from 8 AM to 5 PM. The contractor undertakes to keep noise and disturbance down to a minimum and keep the work area tidy and clean at all times.
  - 3.1.5 The installation shall be completed with first-class workmanship to the satisfaction of the MIRDC.
  - 3.1.6 The prices quoted are fixed prices and the agency will not reimburse any cost increase due to the instability of the prices in the market, this paragraph means no claims will be considered for any compensation due to high or low rises in the market prices.
  - 3.1.7 It is the responsibility of the contractor to visit the site prior to submitting his tender and verify quantities of the materials and equipment required to execute the works in accordance with the contract drawings,
  - 3.1.8 A Notice to the Public shall be posted on the construction site on a tarpaulin sign

board suitably framed for outdoor display at the project location and shall be posted as soon as the award has been made. The tarpaulin shall have the following specifications.

Tarpaulin, white 8ft x 8ft  
 Resolution: 70 dpi  
 Font: Helvetica  
 Font size: Main Information – 3”  
 Sub-Information – 1”  
 Font Color: Black

And in the following format:

Name of Agency

Business

Address

Project: \_\_\_\_\_

Location: \_\_\_\_\_

Cost: \_\_\_\_\_

Fund Source/s: \_\_\_\_\_

Implementing Agency/ies: \_\_\_\_\_

Development Partner/s: \_\_\_\_\_

Contractor/Supplier: \_\_\_\_\_

Brief Description of Project: \_\_\_\_\_

Project Detail

Duration	Project Date		Percentage of Completion	Project Status			Remarks
	Started	Target Date of Completion		As of (Date)	Cost Incurred to Date	Date Completed	

For particulars or complaints about this project, please contact the Regional Office or Cluster which has jurisdiction on this project:

COA Regional Office No./Cluster: \_\_\_\_\_

Address: \_\_\_\_\_

Contact No. \_\_\_\_\_

or Text COA Citizen’s Desk at 0915-539

## ***IV. SCOPE OF WORK***

### **4.1 WORK/OPERATION PLAN**

- 4.1.1 The **CONTRACTOR** shall submit the project work plan/PERT-CPM consisting of the specific work activities to the MIRDC-Technical Working Group (TWG) upon receipt of the Notice of Award.
- 4.1.2 The **CONTRACTOR** shall submit a construction methodology prior to the construction activity, evaluated and approved by MIRDC-TWG.
- 4.1.3 If there is a conflict between the design plan and the actual site condition, the **CONTRACTOR** shall submit shop drawing proposals for the MIRDC-TWG's approval.
- 4.1.4 The **CONTRACTOR's** bid price shall include the following:
- a) Any auxiliary works and equipment that may be required for the proper execution of the project.
  - b) Supply of materials and equipment to the site.
  - c) Installation of materials and equipment required.
  - d) All testing, balancing, adjusting, commissioning, and handling of complete operational systems.
  - e) Allowance for cleaning and for proper protection of all equipment, electrical installation, and structures during and after installation.
  - f) Submittal of original instruction catalogs and operating manuals, troubleshooting, and maintenance for the system.
  - g) As-built drawings with all exact details for all executed works.
  - h) All necessary cables, switches, and accessories to ensure the system is connected properly, and functionally working as intended.
  - i) Safety requirements and insurance for the site and contractor team members.
  - j) Provision of an online monitoring system software with a metering device for the actual monthly readout of the system's power produced vis-a-vis the local utility distribution.
- 4.1.5 The **CONTRACTOR** shall provide professional services and other support services necessary for the implementation and completion of the proposed project.

4.1.6 In the event that the project duration cannot be met, the **CONTRACTOR** shall submit a request letter for project extension with valid and verifiable reasons at least thirty (30) days before the target date of completion. The contractor shall provide a revised project work plan subject to evaluation and approval of MIRDC. Likewise, the Contractor shall submit a performance bond to cover the approved project time extension.

## **4.2 *CONTRACTOR STAFFING***

4.2.1 The **CONTRACTOR** shall provide key staff for but not limited to the following positions on a full-time or part-time basis during the preparation of design and actual construction:

- a) Project Manager (part time)
- b) Project Engineer (Electrical Engineer) (full time)
- c) Safety Officer (DOLE Accredited/full time)

4.2.2 The **CONTRACTOR** shall hire a licensed Project Engineer (Electrical Engineer) selected and endorsed by MIRDC-TWG to assess, supervise, and prepare needed documents/reports during the construction and post-construction phase. He/she shall be assigned full-time at the GMU office for the entire duration of the project.

4.2.3 The **CONTRACTOR** shall provide for the professional fee of the hired project engineer from pre-construction until project completion. He /she shall report directly to and assist the MIRDC TWG members on a full-time basis.

4.2.4 The **CONTRACTOR's** key staff shall be in charge of the construction work and perform the following but not limited to:

4.2.2.1 Schedule, oversee, and monitor the day-to-day construction works.

4.2.2.2 Prepare weekly and monthly accomplishment reports supported with progress photographs and S-Curves to monitor actual progress status and to be used as the basis for progress billing subject to verification/validation of MIRDC.

4.2.2.3 Submit material samples and specifications (safety data sheet) for review and approval of MIRDC TWG prior to installation. No installation will be allowed without the approval of the MIRDC TWG.

## **4.3. *PRE-CONSTRUCTION***

4.3.1. The **CONTRACTOR** shall prepare, secure, submit, and process all necessary documents (building permits, permit to operate, clearance, plans, etc.) and pay all assessed fees and other incidental expenses related thereto as may be required by the Local Government Unit, Utility Firms,

and Regulating Agencies.

- 4.3.2. The applicable permits should be filed first with the concerned LGUs/Agencies as a prerequisite for 1<sup>st</sup> billing processing.
- 4.3.3. The contractor and MIRDC TWG shall conduct a pre-construction meeting and regular weekly meetings to discuss details and concerns of the project.

## ***4.4. IMPLEMENTATION OF APPROVED PLANS AND SPECIFICATION***

### **4.4.1 SYSTEM DESIGN**

- 4.4.1.1 The PV system shall have state-of-the-art parts and components for a small-scale On Grid (Grid-tied) PV system. It shall consist of a string-connected PV generator with inverter units. The PV modules are connected in such a way so that the power generated is in accordance with the desirable inverter operation unit.
- 4.4.1.2 All cable connections shall be fastened to a metal frame using UV-rated cable ties.
- 4.4.1.3 The contractor shall evaluate the site in terms of shading occurrences on the module's surface, where a detailed simulation process can be achieved using contractor-supplied pv system software.

### **4.4.2 PV Modules**

- 4.4.2.1 The photovoltaic modules shall come from a reputable module manufacturer.
- 4.4.2.2 The photovoltaic modules shall be of **Grade A** rating, with certification from the manufacturer.
- 4.4.2.3 Cell type: mono-crystalline or poly-crystalline modules are acceptable.
- 4.4.2.4 The output power of the modules shall not be less than 550 Wp at Standard Test Condition (STC). Conversion efficiency shall not be less than 19.5%
- 4.4.2.5 **One hundred forty-two (142)** photovoltaic cell modules shall be used for the GOLD bldg. project.
- 4.4.2.6 Operating PV temperature should be between -10 °C to +85 °C.
- 4.4.2.7 Modules' temperature sensitivity at peak power should not exceed minus (-) 0.40% / °C
- 4.4.2.8 The PV module frame material shall be of anodized aluminum.
- 4.4.2.9 The PV modules should be resistant to Potential Induced Degradation (PID).
- 4.4.2.10 The module shall have a distinct individual serial number behind each front glass.
- 4.4.2.11 The modules shall have a positive power tolerance of  $\pm 3\%$ .
- 4.4.2.12 Electrical connections shall be on a robust terminal block in an IP65 or higher-rated junction box.
- 4.4.2.13 The warranty for module defects after installation shall be at least 10 years or more.
- 4.4.2.14 The winning bidder shall provide a **manufacturer's power guarantee** for all PV modules with their serial numbers that guarantee output losses shall not be more than 10% during the first 10 years and up to 20% in total after 25 years. The warranty must state that the malfunctioning solar photovoltaic module shall be replaced by the manufacturer/supplier. The replacement solar module must be identical to, or better than the original design of the malfunctioning pv module.

- 4.4.2.15 All PV modules should have a manufacturer's certification passing the IEC 61215 Mechanical stability design qualification and type approval for crystalline silicon terrestrial (PV) modules.
- 4.4.2.16 All PV modules shall have safety qualification standard: IEC/EN 61730 for safety class II test.

#### **4.4.3 INVERTER**

- 4.4.3.1 Three phase power inverters. The inverters shall comply with the Electrical Company regulations and standards.
- 4.4.3.2 The inverter shall be equipped with 2 or more Maximum Power Point Tracking (MPPT).
- 4.4.3.3 Efficiency shall not be less than 97%.
- 4.4.3.4 The inverter shall provide LED indicators to provide instantaneous information about the system status.
- 4.4.3.5 The inverter shall have the following protection: reverse current, input over-voltage and over-current via fuses.
- 4.4.3.6 The inverter's operating temperature range shall be from -20°C to 60°C.
- 4.4.3.7 Total harmonic distortion (THD) shall not exceed by 3%.
- 4.4.3.8 Inverters shall be installed indoors, otherwise, the protection degree shall be IP65 or higher and should be covered with metal shades.

#### **4.4.4 MOUNTING SYSTEM**

- 4.4.4.1 Manufacturer's warranty shall be at least 3 years.
- 4.4.4.2 Durable design which is capable of withstanding high-speed wind of at least 150 km/h.
- 4.4.4.3 The entire steel structure shall have anti-corrosion, anti-rust properties and can withstand high humidity fluctuations.
- 4.4.4.4 The mounting structure shall be all fitted or pre-fabricated and should be assembled at the site. The contractor shall repair any damage incurred on the roofing system or to the surrounding area arising from the installation of the mounting structure. No water leaks whatsoever shall exist after completing the repair.
- 4.4.4.5 All bolts, nuts, and washers for the PV modules' mounting structure must be made of stainless steel. Stainless steel must not get into contact with the PV module's aluminum frames.
- 4.4.4.6 All clamps in contact with the PV modules' aluminum frames must be made of aluminum.
- 4.4.4.7 Tighten bolts with the required torque for aluminum frame fasteners. Provide torque marks for every bolt used in the mounting system.
- 4.4.4.8 Provide a 36" setback from the roof ridges to give firefighters access to the peak of the roof in the event of a building fire.
- 4.4.4.9 PV panels shall not be in contact with the roof. Provide at least a 4" gap between the panel and the roof itself.

#### **4.4.5 DATA LOGGING AND MONITORING SYSTEM**

- 4.4.5.1 The System shall include monitoring, remote diagnosis, data storage, and visualization capability.
- 4.4.5.2 It shall collect data from the inverter on the system side, keeping one informed of the system status at any given time (must be compatible with the inverter).



- 4.4.5.3 Shows the instantaneous values on both DC and AC side which includes but are not limited to voltage, power, current etc.
- 4.4.5.4 Connection inverters with data points.
- 4.4.5.5 The inverter must be equipped with an Ethernet connection that enables real-time data logging with all related hardware and software required.
- 4.4.5.6 Warranty after installation shall be at least 3 years.

#### **4.4.6 EARTHING PROTECTION**

- 4.4.6.1 Incorporate a complete system for grounding each PV module including the mounting structure for safety.
- 4.4.6.2 Each array structure of the PV system should be grounded properly.
- 4.4.6.3 All metal casing or shielding of the plant is to be strongly grounded.

#### **4.4.7 CABLES**

- 4.4.7.1 PV cables shall comply with TUV standards. Operation temperature for PV cable shall be up to 80°C.
- 4.4.7.2 PV cables shall be UV resistant, flame retardant, double insulated, and with low smoke characteristics.
- 4.4.7.3 PV and AC cables shall comply with local and international standards.
- 4.4.7.4 All external cables must be installed inside a cable basket using PVC flexible pipe with glands between the modules and the cable basket tray or cable tray.
- 4.4.7.5 The cable ties shall be black in color and UV rated or resistant.
- 4.4.7.6 Cabling losses: the cable losses shall be between 1-3%; from string to inverter (DC side) and from inverter unit to load (AC side).

#### **4.4.8 LABELING**

- 4.4.8.1 Each equipment item must have a nameplate attached to it bearing among other things the manufacturer's name, address, model number, and serial number securely affixed in a conspicuous place.
- 4.4.8.2 Warning labels shall be provided and affixed in a conspicuous place.
- 4.4.8.3 All labeling material shall be weather-resistant.

#### **4.4.9 WARRANTY**

- 4.4.9.1 The supplier is responsible for providing an Operation and Maintenance Bond warranty (5% of the value of the actual executed works) with a one-year free warranty (periodic operational and maintenance) inclusive of support visit plan, routine visits, and the preventive maintenance visits with online monitoring of the system's efficiency and productivity
- 4.4.9.2 PV solar panels: 10 years on materials and workmanship and 25-year linear power output warranty.
- 4.4.9.3 Inverters: 5 years from the final takeover of the project.
- 4.4.9.4 Mounting system: 10 years from the final takeover of the project.
- 4.4.9.5 Monitoring systems: 3 years from the final takeover of the project

4.4.9.6 Cables: 5 years from final takeover of the project.

4.4.9.7 Auxiliary electrical parts (CB, etc): 3 years from the final takeover of the project

#### **4.4.10 PV SYSTEM LAYOUT**

4.4.10.1 The technical offer shall include PV system layout drawings and shall consider service passages to enable ease of maintenance and system cleaning. Also, include the location of the PV modules, inverters, and cable routes.

#### **4.4.11 POINT-OF-INTERCONNECTION DESIGN**

4.4.11.1 The bidder shall propose the electrical design for the point of interconnection.

4.4.11.2 The coupling point shall be through a separate electrical enclosure from the existing system and should include proper CB AC/DC systems and all necessary protection relays including metering.

4.4.11.3 Circuit protection devices should be from a reputable manufacturer.

#### **4.4.12 TESTING AND COMMISSIONING**

4.4.12.1 The bidder shall include in the technical offer a Testing and Commissioning Plan in compliance with the testing and commissioning technical requirements provided.

4.4.12.2 The final commissioning, including training of MIRDC personnel, will be performed by the contractor at his own expense and will be witnessed and approved by the owner's representative.

#### **4.4.13 MAINTENANCE AND CLEANING PLAN**

4.4.13.1 The bidder shall include in the technical offer a two (2) years maintenance for the new system and cleaning for exciting and extension systems with the following details:

- A detailed maintenance plan including a maintenance checklist and technical support as per the requirements.
- Detailed cleaning mechanism for the PV system including devices used for cleaning.
- The cleaning frequency should be 4 times a year at least.
- The awarded contractor should submit a monthly report about the performance of the system by the end of 2<sup>nd</sup> year.
- The contractor must initiate corrective actions when actual production isn't realized as per the design proposal.

## **v. *SUPERVISION AND MONITORING DURING CONSTRUCTION***

5.1. The **CONTRACTOR** shall submit a list of their personnel before the start of the construction. (Any changes in the list of personnel shall be submitted also to concerned MIRDC personnel and the Security office).

5.2. Submit to the Technical Working Group project weekly and monthly accomplishment reports during the construction period. A representative engineer from MIRDC shall monitor the progress of the project.

## **vi. SAFETY ENCLOSURE AND PROVISION FOR MATERIAL HANDLING**

- 6.1 Provide safety nets (enclosures, shielding, coverings, warning device, keep-off limits signs, etc.) at the start of the project to ensure the protection of the general public, the preservation of property against falling debris, paint droplets, and/or spillage of painting materials or the like.
- 6.2 CONTRACTOR personnel are not allowed to loiter and use the comfort rooms located inside the MIRDC buildings. Ensure cleanliness along the respective areas.
- 6.4 Contractor shall provide for their own safety and security.
- 6.5 Contractor shall store their materials, equipment, and tools in one place at the Center. The area shall be coordinated with MIRDC. Any damage thereto or to the surrounding area arising from any accident, paint spills, etc. shall be repaired and/or restored to its original condition. Likewise, extra care should be exercise in the storage of hazardous chemicals (paints, thinner, lacquers, oil, solvents, etc.) in order to avoid accident, explosion and/or fires. Oily rags, solvent-soaked foams, paint brushes and rollers shall be kept in metal containers tightly sealed and shall be cleaned and/or removed from the job site at the end of every working day.
- 6.6 MIRDC's safety officer shall be allowed to inspect the area at all times to ensure compliance with safety requirements.

## **vii. SUBMITTALS**

Contractor shall submit the following after completion of the project and before processing of the final billing.

- 7.1 Five (5) sets of complete as-built plans (electrical and structural) signed and sealed blueprints.
- 7.2 Electronic file for the As-built plans (Autocad DWG) stored in a USB.
- 7.3 The Contractor shall submit a draft as-built plan, in PDF format, one month before the completion date of the project for the review and comments of the TWG. Submission of the as-built plans is required prior to the release of the final billing.

## **viii. APPROVED BUDGET COST**

We offer to undertake the solar system project for a total sum of **Four Million Three Hundred Twenty-Three Pesos and Zero Centavos (Php 4,300,023.00)**, inclusive of all government taxes.

## **IX. TERMS OF PAYMENT**

The proposed manner of payment shall be as follows:

### **a. Mobilization Fee**

The CONTRACTOR shall prepare a written request to collect mobilization fees in an amount not exceeding *fifteen percent (15%) of the total contract price.*

*Release of the mobilization fee is subject to the submission to and acceptance by the MIRDC of an irrevocable standby letter of credit of equivalent value from a commercial bank, a bank guarantee, or a surety bond callable upon demand, issued by a surety or insurance company duly licensed by the Insurance Commission.*

CONTRACTOR shall repay the mobilization fee by deducting an amount equal to the percentage of the total contract price used for the advance payment from each progress payment until the mobilization fee is fully liquidated.

### **b. Progress Payment**

Progress Billing shall be made with the following scheme based on the actual computed area of accomplishment:

Progress Billing	Date	Percentage of Claim
First Billing	At least completing 20% of the project	20% of Project, assessed, verified & certified by MIRDC TWG
Second Billing	At least completing 50% of the project	Actual works accomplished as assessed, verified & certified by MIRDC TWG
Third Billing	At least completing 75% of the project	Actual works accomplished as assessed, verified & certified by MIRDC TWG
Final Billing		100% Accomplishment of Project as assessed, verified & certified by MIRDC TWG

- c.** All progress billings shall be supported by a Statement of Work Accomplishment which shall be validated by MIRDC and the consultant/designer.

- d. All payments made to the **CONTRACTOR** shall be subjected to the required two percent (2%) Expanded Withholding Tax (EWT), five percent (5%) Final Withholding Tax on Government Money Payments (GMP), and ten percent (10%) retention fee from every Progress Billing.

e. ***Retention Money***

The total retention fee shall be due for release upon issuance of Certificate of Final Acceptance and submission of a warranty bond by the Contractor.

## ***Section VII. Drawings***

*[Insert here a list of Drawings. The actual Drawings, including site plans, should be attached to this section, or annexed in a separate folder.]*

## ***Section VIII. Bill of Quantities***

### **Notes on the Bill of Quantities**

#### **Objectives**

The objectives of the Bill of Quantities are:

- a. to provide sufficient information on the quantities of Works to be performed to enable Bids to be prepared efficiently and accurately; and
- b. when a Contract has been entered into, to provide a priced Bill of Quantities for use in the periodic valuation of Works executed.

In order to attain these objectives, Works should be itemized in the Bill of Quantities in sufficient detail to distinguish between the different classes of Works, or between Works of the same nature carried out in different locations or in other circumstances which may give rise to different considerations of cost. Consistent with these requirements, the layout and content of the Bill of Quantities should be as simple and brief as possible.

#### **Daywork Schedule**

A Daywork Schedule should be included only if the probability of unforeseen work, outside the items included in the Bill of Quantities, is high. To facilitate checking by the Entity of the realism of rates quoted by the Bidders, the Daywork Schedule should normally comprise the following:

- a. A list of the various classes of labor, materials, and Constructional Plant for which basic daywork rates or prices are to be inserted by the Bidder, together with a statement of the conditions under which the Contractor will be paid for work executed on a daywork basis.
- b. Nominal quantities for each item of Daywork, to be priced by each Bidder at Daywork rates as Bid. The rate to be entered by the Bidder against each basic Daywork item should include the Contractor's profit, overheads, supervision, and other charges.

#### **Provisional Sums**

A general provision for physical contingencies (quantity overruns) may be made by including a provisional sum in the Summary Bill of Quantities. Similarly, a contingency allowance for possible price increases should be provided as a provisional sum in the Summary Bill of Quantities. The inclusion of such provisional sums often facilitates budgetary approval by avoiding the need to request periodic supplementary approvals as the future need arises. Where such provisional sums or contingency allowances are used, the SCC should state the manner in which they will be used, and under whose authority (usually the Procuring Entity's Representative's).

The estimated cost of specialized work to be carried out, or of special goods to be supplied, by other contractors should be indicated in the relevant part of the Bill of Quantities as a particular provisional sum with an appropriate brief description. A separate procurement procedure is normally carried out by the Procuring Entity to select such specialized contractors. To provide an element of competition among the Bidders in respect of any facilities, amenities, attendance, etc., to be provided by the successful Bidder as prime Contractor for the use and convenience of the specialist contractors, each related provisional sum should be followed by an item in the Bill of Quantities inviting the Bidder to quote a sum for such amenities, facilities, attendance, etc.

### **Signature Box**

A signature box shall be added at the bottom of each page of the Bill of Quantities where the authorized representative of the Bidder shall affix his signature. Failure of the authorized representative to sign each and every page of the Bill of Quantities shall be a cause for rejection of his bid.

These Notes for Preparing a Bill of Quantities are intended only as information for the Procuring Entity or the person drafting the Bidding Documents. They should not be included in the final documents.



## ***Section IX. Checklist of Technical and Financial Documents***

### **Notes on the Checklist of Technical and Financial Documents**

The prescribed documents in the checklist are mandatory to be submitted in the Bid, but shall be subject to the following:

- a. GPPB Resolution No. 09-2020 on the efficient procurement measures during a State of Calamity or other similar issuances that shall allow the use of alternate documents in lieu of the mandated requirements; or
- b. any subsequent GPPB issuances adjusting the documentary requirements after the effectivity of the adoption of the PBDs.

The BAC shall be checking the submitted documents of each Bidder against this checklist to ascertain if they are all present, using a non-discretionary “pass/fail” criterion pursuant to Section 30 of the 2016 revised IRR of RA No. 9184.

# Checklist of Technical and Financial Documents

## I. TECHNICAL COMPONENT ENVELOPE

### *Class “A” Documents*

#### Legal Documents

- (a) Valid PhilGEPS Registration Certificate (Platinum Membership) (all pages);  
**or**
- (b) Registration certificate from Securities and Exchange Commission (SEC), Department of Trade and Industry (DTI) for sole proprietorship, or Cooperative Development Authority (CDA) for cooperatives or its equivalent document;  
**and**
- (c) Mayor’s or Business permit issued by the city or municipality where the principal place of business of the prospective bidder is located, or the equivalent document for Exclusive Economic Zones or Areas;  
**and**
- (e) Tax clearance per E.O. No. 398, s. 2005, as finally reviewed and approved by the Bureau of Internal Revenue (BIR).

#### Technical Documents

- (f) Statement of the prospective bidder of all its ongoing government and private contracts, including contracts awarded but not yet started, if any, whether similar or not similar in nature and complexity to the contract to be bid; **and**
- (g) Statement of the bidder’s Single Largest Completed Contract (SLCC) similar to the contract to be bid, except under conditions provided under the rules;  
**and**
- (h) Philippine Contractors Accreditation Board (PCAB) License;  
**or**  
Special PCAB License in case of Joint Ventures;  
**and** registration for the type and cost of the contract to be bid; **and**
- (i) Original copy of Bid Security. If in the form of a Surety Bond, submit also a certification issued by the Insurance Commission;  
**or**  
Original copy of Notarized Bid Securing Declaration; **and**
- (j) Project Requirements, which shall include the following:
  - a. Organizational chart for the contract to be bid;
  - b. List of contractor’s key personnel (*e.g.*, Project Manager, Project Engineers, Materials Engineers, and Foremen), to be assigned to the contract to be bid, with their complete qualification and experience data;
  - c. List of contractor’s major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership or certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case may be; **and**
- (k) Original duly signed Omnibus Sworn Statement (OSS);

**and** if applicable, Original Notarized Secretary's Certificate in case of a corporation, partnership, or cooperative; or Original Special Power of Attorney of all members of the joint venture giving full power and authority to its officer to sign the OSS and do acts to represent the Bidder.

Financial Documents

- (l) The prospective bidder's audited financial statements, showing, among others, the prospective bidder's total and current assets and liabilities, stamped "received" by the BIR or its duly accredited and authorized institutions, for the preceding calendar year which should not be earlier than two (2) years from the date of bid submission; **and**
- (m) The prospective bidder's computation of Net Financial Contracting Capacity (NFCC).

**Class "B" Documents**

- (n) If applicable, duly signed joint venture agreement (JVA) in accordance with RA No. 4566 and its IRR in case the joint venture is already in existence; **or**  
duly notarized statements from all the potential joint venture partners stating that they will enter into and abide by the provisions of the JVA in the instance that the bid is successful.

**II. FINANCIAL COMPONENT ENVELOPE**

- (o) Original of duly signed and accomplished Financial Bid Form; **and**

Other documentary requirements under RA No. 9184

- (p) Original of duly signed Bid Prices in the Bill of Quantities; **and**
- (q) Duly accomplished Detailed Estimates Form, including a summary sheet indicating the unit prices of construction materials, labor rates, and equipment rentals used in coming up with the Bid; **and**
- (r) Cash Flow by Quarter.

