



**Bureau of Soils and Water Management
PHILIPPINE BIDDING DOCUMENTS**

**Re-bid - Design and Build of
Hybrid Solar Power System for
BSWM**

IB No. BSWM 2025-05-054

Date issued

May 2025

DATE OF OPENING OF TECHNICAL PROPOSALS: JUNE 17, 2025

DATE OF OPENING OF FINANCIAL PROPOSALS: JUNE 18, 2025

PHILIPPINE BIDDING DOCUMENTS

**Procurement of
INFRASTRUCTURE
PROJECTS**

Government of the Republic of the Philippines

**Sixth Edition
July 2020**

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.



Republic of the Philippines
Department of Agriculture
BUREAU OF SOILS AND WATER MANAGEMENT
SRDC Bldg., Elliptical Road corner Visayas Avenue,
Diliman, Quezon City 1101

Invitation to Bid

Re-bid of Design and Build of Hybrid Solar Power System for BSWM - IB No. BSWM 2025-05-054

1. The **Bureau of Soils and Water Management**, through the **General Appropriation Act for CY 2024** intends to apply the sum of **Thirty Three Million Pesos (PhP 33,000,000.00)** being the Approved Budget for the Contract (ABC) to payments under the contract for **Re-bid - Design and Build of Hybrid Solar Power System for BSWM - IB No. BSWM 2025-05-054**. Bids received in excess of the ABC shall be automatically rejected at bid opening.
2. The **Bureau of Soils and Water Management** now invites bids for the above Procurement Project. Completion of the Works is required as stated in Section VI. 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. Prospective Bidders should be (1) registered with and classified by the Philippine Contractors Accreditation Board (PCAB) with **PCAB LICENSE**:
 - (i) Classification: General Engineering
 - (ii) License Category: at least B (Above 15 Million up to 75 Million)
4. 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.
5. Interested bidders may obtain further information from the **Bureau of Soils and Water Management** and inspect the Bidding Documents at the address given below from *Mondays-Fridays 8:00-5:00PM (Office hours)*.
6. A complete set of Bidding Documents may be acquired by interested bidders **until June 16, 2025, 8:00AM** from given address and website/s below, *upon payment of the applicable fee for the Bidding Documents, pursuant to the latest Guidelines issued by the GPPB, in the amount of PhP 17,000.00*.

The Procuring Entity shall allow the bidder to present its proof of payment for the fees *on or before the deadline of submission of bids*.

7. The **Bureau of Soils and Water Management** will hold a **Pre-Bid Conference on June 03, 2025 at BSWM Convention Hall**. *Pre-Bid Conference will be available “live” thru BSWM Procurement Service FB Page (<https://www.facebook.com/bswmpms>), which shall be open to prospective bidders. Furthermore, all interested bidders can participate through videoconferencing*. Please coordinate with BAC Secretariat at least a day before the meeting at bac@bswm.da.gov.ph

8. Bids must be duly received by the BAC Secretariat through manual submission at the office address as indicated below, on or before ***June 17, 2025, 9:00AM***. Late bids shall not be accepted.
9. All bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in **ITB** Clause 16.
10. Bid opening shall be on ***June 17, 2025, 9:30AM*** at the given address below and through videoconferencing/webcasting via ZOOM and streamed live through BSWM Procurement Service Facebook Page. Bids will be opened in the presence of the bidders' representatives who choose to attend the activity.
11. The BSWM strictly adheres to the policies stated under the Data Privacy Act 10173 of 2021.
12. The *Bureau of Soils and Water Management* 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.
13. For further information, please refer to:

FRANCE JOSEPHINE C. BAUTISTA
BAC SECRETARIAT
BIDS AND AWARDS COMMITTEE SECRETARIAT'S OFFICE
2ND FLOOR, SRDC BLDG.,
VISAYAS AVE. COR. ELLIPTICAL ROAD, DILIMAN, QUEZON
CITY TELEFAX NUMBER: +63-2-8273-2474 Loc 3218
EMAIL ADDRESS: bac@bswm.da.gov.ph WEBSITE:
www.bswm.gov.ph FB Page: <https://www.facebook.com/bswmpms>

14. You may visit the following websites: For downloading of Bidding Documents: PhilGEPS- <https://notices.philgeps.gov.ph/> , BSWM Website- www.bswm.gov.ph or BSWM Procurement Service Facebook Page- <https://www.facebook.com/bswmpms>

Sgd **DENISE A. SOLANO**
BAC Chairperson



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, *Bureau of Soils and Water Management* invites Bids for the ***Rebid- Design and Build of Hybrid Solar Power System for BSWM- IB No. BSWM 2025-05-054.***

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 the General ***Appropriation Act for CY 2024*** in the amount of **Thirty Three Million Pesos (Php 33,000,000.00).**

2.2. The source of funding is:

~~*[If an early procurement activity, select one and delete others:]*~~

a. ~~NGA, the National Expenditure Program.~~

b. ~~GOCC and GFIs, the proposed Corporate Operating Budget.~~

c. ~~LGUs, the proposed Local Expenditure Program.~~

~~*[If not an early procurement activity, select one and delete others:]*~~

a. **NGA, the General Appropriations Act or Special Appropriations.**

b. ~~GOCC and GFIs, the Corporate Operating Budget.~~

c. ~~LGUs, the Annual or Supplemental Budget, as approved by the Sanggunian.~~

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:
[Select one, delete other/s]~~

- 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.~~
- b. Subcontracting is not allowed.

~~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 criteria 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 and either at its physical address and/or through videoconferencing/webcasting} as indicated in paragraph 6 of the IB.

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

IB, 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 special PCAB License in case of Joint Ventures, 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:*

[Select one, delete other/s]

a. Philippine Pesos.

b. ~~*[indicate currency if procurement involves a foreign-denominated bid as allowed by the Procuring Entity, which shall be tradeable or acceptable by the BSP.]*~~

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 15 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	
5.1	<p>Eligible Bidders</p> <p>The eligibility requirements for Design and Build infrastructure projects shall comply with the applicable provisions of Sections 23 to 24 of IRR.</p> <p>The prospective bidder shall submit all the required Class “A” and Class “B” documents for infrastructure projects and the following:</p> <ul style="list-style-type: none"> a) relevant statements of all on-going, completed, awarded but not yet started design/design and build related contracts, curriculum vitae of key staff, partners or principal officers; and b) valid licenses issued by the Professional Regulatory Commission (PRC) for design professionals of the largest contract/latest submitted project
5.2	<p>For this purpose, contracts similar to the Project refer to contracts which have the same major categories of work.</p> <ul style="list-style-type: none"> • <u>Contracts on Supply and Delivery and Installation of Solar Powered System</u> <ol style="list-style-type: none"> 1. 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. <p>If Contracts on Build only, bidder must satisfy the requirement per Section 9.2 (ii) of Annex G of Revised IRR of RA 9184:</p> <ul style="list-style-type: none"> a. The eligibility of design and build contractors shall be based on the legal, technical and financial requirements abovementioned. In the technical requirements, the design and build contractor (as solo or in joint venture/consortia) should be able to comply with the experience requirement under the IRR of R.A. 9184, where one of the parties (in a joint venture/consortia) should have at least one similar project, both in design and construction, with at least 50% of the cost of the ABC. b. If the bidder has no experience in design and build projects on its own it may enter into subcontracting, partnerships, or joint venture with design or engineering firms for the design portion of the contract. <ol style="list-style-type: none"> 2. CPES (if applicable); or 3. Final Acceptance (with at least satisfactory performance rating to be presented/ validated during post qualification)

7.1	<p><i>Subcontracting is <u>allowed</u>.</i> 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.</p>
10	<p>1. Documents Comprising the Bid: Eligibility and Technical Components</p> <p>In the submission of bids, the first envelope (Technical Proposal) shall contain all the required documents for infrastructure projects under Section 25.2(b) of the IRR of R.A 9184 and the following additional documents per Annex G of the 2016 Revised IRR:</p> <p><u>Section 25. Submission and Receipt of Bids</u> Section 25.2. The first envelope shall contain the following technical information/documents, at the least:</p> <p>b) For the procurement of Infrastructure Projects:</p> <ul style="list-style-type: none"> i. PhilGEPS Certificate of Registration and membership in accordance with Section 8.5.2 of this IRR. For procurement to be performed overseas, it shall be subject to the Guidelines to be issued by the GPPB.(a) ii. PCAB License and Registration, in case of JV;65 iii. Statement of all Ongoing Government and Private Contracts; iv. Statement of SLCC; v. NFCC Computation; vi. JVA, if applicable; vii. Bid security in the prescribed form, amount and validity period; viii. Project Requirements, which shall include the following: <ul style="list-style-type: none"> a. (1) Organizational chart for the contract to be bid; b. (2) List of contractor's 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. (3) 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 <p>The following additional documents per Item 10 of Annex G of the 2016 Revised IRR:</p> <ul style="list-style-type: none"> a. Preliminary Conceptual Design Plans b. Design and construction methods c. List of design and construction personnel, to be assigned to the contract to be bid, with their complete qualification and experience data d. Value engineering analysis of design and construction method; <p><u>Additional requirement of the BSWM:</u></p> <ul style="list-style-type: none"> a. <u>Certificate of Site Inspection</u>

	<p>Site Inspection Schedule: May 30 to June 04, 2025, at the BSWM NSWRRDC-HIGHPEZ.</p> <p>Important note: <i>Certificate of Site Inspection issued from the previous bidding will be <u>accepted</u>.</i></p>	
10.3	A valid special PCAB License in case of Joint Ventures	
10.4	The key personnel must meet the required minimum years of experience set below:	
	Key Personnel	Minimum Qualification & Duties
	Project Manager (1)	Licensed engineer with at least 5 years of experience in renewable energy projects.
	Professional Electronics and Communication Engineer (1)	3 years' experience as PECE specialized Review, checking & certification of the design of Solar PV.
	Registered Electrical Engineer (1)	License Registered Electrical engineer with 3 years' experience in Solar PV design and construction. Prepare a layout of wirings, devices and equipment. Provide details and sequence of operation.
	Professional Electrical Engineer (1)	License Professional Electrical Engineer with 3 years' experience in Solar PV design and construction. Prepare a layout of wirings, devices and equipment. Provide details and sequence of operation.
	Cad Operator/Draftsman (1)	At least 1-year experience as cad operator/draftsman. Plotting layout and details at Auto Cad software.
	Safety Officer	Must be DOLE-certified with a minimum of three (3) years of experience in construction and renewable energy projects, ensuring compliance with occupational health and safety standards during installation.
	Structural/Civil Engineer	License and possess a minimum of 3 years of experience in structural design and construction.

	Licensed Architect	Must have at least 3 years of experience in architectural planning, preparation of as-built plans, and coordination of permit application
	Registered Master Plumber	Licensed professional with at least 3 years of experience in plumbing and sanitary system design, installation, and maintenance.
	Professional Mechanical Engineer (PME)	Licensed PME with a minimum of 5 years of experience in mechanical systems, including HVAC and fire protection systems.
	NOTE: Prospective bidders shall <u>attach/submit the resume of the above professional key personnel</u> . Said key personnel shall possess and submit together with their <u>resume, their valid license</u> for the practice of engineering issued by the Professional Regulations Commission (PRC).	
10.5	<p>The list of equipment which is owned, leased, and/or purchased agreement to be utilized for the project shall be, and to be supported with proof of ownership, purchase agreement and certification of availability from the equipment lessor/vendor for the duration of the project:</p> <ul style="list-style-type: none"> ● Motorized lift 	
11	<p>● Documents Comprising the Bid: Financial Component</p> <p>The second envelope (Financial Proposal) shall contain all the required documents for infrastructure projects under Section 25.3 of the IRR of R.A 9184 and the following additional documents:</p> <ul style="list-style-type: none"> I. Lump sum bid prices, which shall include the detailed engineering cost, in the prescribed Bid Form; II. Detailed estimates including a summary sheet indicating the unit prices of construction materials, labor rates and equipment rentals used in coming up with the bid; and III. Cash flow by the quarter and payments schedule. 	
12	N/A	

15.1	<p>The bid security shall be in the form of a Bid Securing Declaration or any of the following forms and amounts:</p> <ol style="list-style-type: none"> a. The amount of not less (2%) of ABC, if bid security is in cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit; b. The amount of not less than (5%) of ABC if bid security is in Surety Bond.
19	<p><u>Detailed Evaluation and Comparison of Bids</u></p> <p>For the detailed evaluation of the design and build proposals a <u>two-step procedure</u> shall be adopted by the BAC, which may be undertaken with the assistance of the Design and Build Committee</p> <p><u>First-Step Procedure:</u></p> <p>The first step of the evaluation shall involve the review of the preliminary conceptual designs and track record submitted by the contractor as indicated in the Bidding Documents using a nondiscretionary "pass/fail" criteria that involve compliance with the following requirements:</p> <ol style="list-style-type: none"> a) Adherence of preliminary design plans to the required performance specifications and parameters and degree of details; b) Concept of approach and methodology for detailed engineering, design and construction with emphasis on the clarity, feasibility, innovativeness and comprehensiveness of the plan approach, and the quality of interpretation of project problems, risks, and suggested solutions; c) Quality of personnel to be assigned to the project which covers suitability of key staff to perform the duties of the particular assignments and general qualifications and competence including education and training of the key staff; <p><u>Second-Step Procedure:</u></p> <p>Only those bids that passed the above criteria shall be subjected to the second step of evaluation. The BAC shall open the financial proposal of each "passed" bidder and shall evaluate it using non-discretionary criteria - including arithmetical corrections for computational errors - as stated in the Bidding Documents, and thus determine the correct total calculated bid prices.</p> <p>The BAC shall automatically disqualify any total calculated bid price which exceeds the ABC. The total calculated bid prices (not exceeding the ABC) shall be ranked, in ascending order, from lowest to highest. The bid with the lowest total calculated bid price shall be identified as the Lowest Calculated Bid (LCB).</p>
20	<p><u>Post Qualification</u></p> <p><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></p>

21	<i>N/A</i>

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

3.1 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.

3.2 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	
	<p><i>Additional contract documents relevant to the Project (to be provided during contract signing):</i></p> <ul style="list-style-type: none"> • <i>construction safety and health program approved by the DOLE</i> • <i>PERT-CPM</i> • <i>construction schedule and S-curve</i>
1	<p><u>Scope of the Contract</u></p> <ol style="list-style-type: none"> No works shall commence unless the contractor has submitted the required documentary requirements and the procuring entity has given written approval. Work execution shall be in accordance with reviewed and approved documents. The contractor shall be responsible for obtaining all necessary information as to risks, contingencies and other circumstances which may affect the works and shall prepare and submit all necessary documents specified by the procuring entity to meet all regulatory approvals as specified in the contract documents. The Contractor shall submit a <u>detailed program of work within fourteen (14) calendar days after the issuance of the Notice to Proceed</u> for approval by the procuring entity that shall include, among others: <ol style="list-style-type: none"> The order in which it intends to carry out the work including anticipated timing for each stage of design/detailed engineering and construction; Periods for review of specific outputs and any other submissions and approvals; Sequence of timing for inspections and tests as specified in the contract documents; General description of the design and construction methods to be adopted; Number and names of personnel to be assigned for each stage of the work; List of equipment required on site for each major stage of the work; and Description of the quality control system to be utilized for the project. Any errors, omissions, inconsistencies, inadequacies or failure submitted by the contractor that do not comply with the requirements shall be rectified, resubmitted and reviewed at the contractor's cost. If the Contractor wishes to modify any design or document which has

	<p>been previously submitted, reviewed and approved, the contractor shall notify the procuring entity within a reasonable period of time and shall shoulder the cost of such changes.</p> <p>5. As a rule, changes in design and construction requirements shall be limited only to those that have not been anticipated in the contract documents prior to contract signing and approval. The following guidelines shall govern approval for change or variation orders</p>
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>Warranty against Structural Defects/Failures</p> <p>All design and build projects shall have a minimum Defects Liability Period of one (1) year after contract completion or as provided for in the contract documents. This is without prejudice, however, to the liabilities imposed upon the engineer/architect who drew up the plans and specification for a building sanctioned under Article 1723 of the New Civil Code of the Philippines</p> <p>[Select one, delete the other:]</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>[Select one, delete the other:]</p> <p>a. Dayworks are applicable at the rate shown in the Contractor's original Bid.</p> <p>b. No dayworks are applicable to the contract.</p>

11.2	The amount to be withheld for late submission of an updated Program of Work is 1%.
13	The amount of the advance payment is <i>15% of the total contract price</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.

TERMS OF REFERENCE AND CONDITIONS

I. TITLE

DESIGN AND BUILD OF HYBRID SOLAR POWER SYSTEM FOR BSWM

II. APPROVED BUDGET FOR THE CONTRACT

The total approved budget for the contract ("ABC") for this procurement is **Thirty-three Million Pesos (Php33,000,000.00)**.

III. PROJECT DESCRIPTION

The objective of this project is to implement a hybrid solar power system at the BSWM Central Office Building to promote renewable energy use and enhance energy efficiency. The project shall be executed through a Design and Build scheme, wherein the winning bidder will conduct a comprehensive study, design the system, and provide the necessary bill of materials for implementation.

Given the technical complexity of integrating solar photovoltaic technology, battery energy storage, and grid-tied systems, the Design and Build scheme is justified under Section 5.1(b) of the Updated 2016 Revised IRR of RA 9184. The project requires advanced engineering solutions and specialized construction technologies. Additionally, expertise in hybrid power systems and adherence to industry best practices are crucial for the successful execution of the project. The involvement of a qualified contractor with the necessary technical know-how will ensure efficient system design, compliance with safety standards, and the long-term reliability of the renewable energy infrastructure at the BSWM Central Office.

IV. CONCEPTUAL DESIGN

The hybrid solar power system will integrate solar photovoltaic (PV) panels, battery energy storage, and a hybrid inverter system to ensure continuous and efficient energy use.

Key Components and Installation Locations:

1. Solar Panels (Photovoltaic Modules)

1.1. Location:

- Roof of the BSWM Central Office Main Building
- Convention Hall
- BSWM Dormitory
- Second-floor Pergola of the Main Building

1.2. Mounting:

- Fixed mounting structure to optimize solar exposure.
- Panels shall be installed at a tilt angle based on site-specific solar orientation to maximize energy harvest.
- Installation must comply with the Philippine Electrical Code (PEC) and the National Structural Code of the Philippines.

1.3. Capacity:

- Target Capacity: 220 Kilowatt peak (kWp)
- Final capacity to be determined based on results of the energy demand and available roof space.

1.4. Solar panel specifications:

- Power Rating: **620 watts peak (Standard Test Conditions)**
- Technology Type: **N-type Mono-crystalline**
- Module Type: **Bifacial with dual-glass construction**
- Certification Requirements: **IEC, TUV, UL, and RoHS certifications must be provided by the supplier**

2. Inverter System

2.1. Capacity: 220kW or higher

2.2. Specifications: 240 Volts, 60hz, 3 phase

2.3. Location: Electrical Room Location: Installed within the containerized storage unit

2.4. Enclosure: Containerized storage unit with air-conditioning system provision to maintain optimal battery temperature and efficiency

3. Battery Energy Storage System (BESS)

3.1. Capacity: 1,600 kWh

3.2. Location: Ground floor, Outside the building

3.3. Enclosure: Containerized battery storage unit with air-conditioning system provision to maintain optimal battery temperature and efficiency Location: Installed within the containerized storage unit

3.4. Cooling System: Air-conditioning system provision to maintain optimal battery temperature and efficiency

3.5. Type: Lithium-ion or other advanced battery technology for high efficiency and long lifespan

3.6. Manual Transfer Switch (MTS): A manual transfer switch shall be provided and installed to integrate the BESS with the BSWM's electrical system. The MTS shall allow safe and reliable transfer of power and ensure system isolation during maintenance or emergency operation. It shall be located in an accessible area and comply with the Philippine Electrical Code (PEC) 2017) and relevant industry standards.

4. Rapid Shutdown System

4.1. Each solar panel shall be equipped with a panel-level rapid shutdown device to ensure compliance with the Philippine Electrical Code (PEC) 2017). This allows emergency responders to safely and quickly shut down the system during emergencies.

4.2. A Rapid Shutdown Controller Box shall be provided and installed in accordance with PEC 2017 requirements. Its location shall allow for immediate access and activation during emergency situations.

4.3. Compliance: The entire rapid shutdown system shall conform to all applicable electrical safety standards and be clearly labeled for visibility and operation.

5. Containerized Storage Unit (for Inverter and BESS)

5.1. The winning bidder shall provide a complete containerized storage unit designed to house both the inverter system and the battery energy storage system (BESS).

5.2. Location: Ground floor, Outside the building

5.3. The container shall be equipped with a dedicated air-conditioning system to maintain optimal temperature and ensure safe and efficient operation of the enclosed systems

5.4. Design Considerations: The enclosure shall be weatherproof, secure, and compliant with relevant safety and electrical standards

V. PERFORMANCE SPECIFICATIONS AND PARAMETERS

1. System Efficiency:

The hybrid solar power system shall be designed to achieve a minimum of 80% overall energy conversion efficiency from solar panels to usable electrical energy, in alignment with the objectives of Republic Act No. 11285 (Energy Efficiency and Conservation Act) and in accordance with internationally recognized performance standards such as IEC 61724-1.

2. Solar Panel Capacity:

The total installed capacity of the solar panels shall be based on the findings of a detailed energy audit and load demand analysis, with an indicative capacity target of 220 kWp

3. Battery Storage:

The battery storage system shall be designed with a total capacity of 1,600 kilowatt-hours (kWh), ensuring compliance with national regulations on energy storage integration, safety standards, and the promotion of renewable energy reliability and sustainability.

4. Inverter Performance:

The inverter shall be capable of **seamless automatic switching** between grid power, solar generation, and battery storage, ensuring uninterrupted power delivery and system stability. The inverter must operate with a **minimum conversion efficiency of 95%**, optimizing energy utilization across sources.

To ensure quality, safety, and environmental compliance, the inverter shall be certified with the following certifications:

1.1. CE (Conformité Européenne) Certification

Compliance with European safety, health, and environmental protection standards for products sold within the European Economic Area

1.2. FCC (Federal Communications Commission) Certification

Ensures the inverter meets U.S. Federal Communications Commission standards for controlling electromagnetic interference.

1.3. Intertek Certification

Independent verification of product safety, performance, and quality based on international standards.

1.4. RoHS (Risk of Hazardous Substances) Certification

Compliance with the following IEC standards to ensure the product is free from environmentally hazardous substances:

- IEC 62321-3-2013
 - IEC 62321-5-2013
 - IEC 62321-7-1-2015
 - IEC 62321-7-2-2017
 - IEC 62321-6-2016
 - IEC 62321-8-2017

1.5. Safety Power Converter

Must comply with the following standards for electrical safety of inverters in photovoltaic systems:

- IEC 62321-8-2017
- EN IEC 62109-2:2011
- EN IEC 62477-01:2022

1.6. ETL (Electrical Testing Laboratories) Certification

Demonstrates compliance with North American safety standards, equivalent to UL listings.

2. All solar photovoltaic (PV) panels used in the system shall comply with the following certifications

to ensure safety, reliability, environmental sustainability, and long-term performance:

2.1. IEC (International Electrotechnical Commission) Certifications

Solar panels must be tested and certified according to the following IEC standards:

- IEC 62716:2013 / EN 62716:2013 – Ammonia corrosion testing of PV modules
- IEC 61701:2020 / EN 61701:2020 – Salt mist corrosion testing, relevant for coastal or humid environments
- IEC 60068-2-68:1994 – Environmental testing for dust and sand resistance
- IEC TS 62941:2019 – Quality management system guidelines for PV module manufacturing

2.2. TÜV Rheinland Certification

Certification by **TÜV Rheinland** or equivalent is required to verify independent third-party testing of module safety, performance, and long-term durability in accordance with global norms.

2.3. UL (Underwriters Laboratories) and CSA (Canadian Standards Association) Certification

The panels shall be **UL Listed** and **CSA Certified**, ensuring compliance with North American safety standards:

- UL 61730-1 – Safety Qualification: Requirements for Construction
- UL 61730-2 – Safety Qualification: Requirements for Testing
- CSA C22.2 No. 61730-1:19 – Canadian Standards: Requirements for Construction
- CSA C22.2 No. 61730-2:19 – Canadian Standards: Requirements for Testing

2.4. ISO (International Organization for Standardization) Certifications

The solar panel manufacturer must be certified under the following ISO standards:

- ISO 9001:2015 – Quality Management Systems
- ISO 14001:2015 – Environmental Management Systems
- ISO 45001:2018 – Occupational Health and Safety Management Systems
- ISO 50001:2018 – Energy Management Systems

3. All major components of the solar PV system (including inverters, batteries, mounting structures, and control units) shall include or comply with the following clean energy-related certifications:

3.1. Structural Certification

Verification of design integrity, load resistance and wind tolerance in accordance with international and local engineering standards.

3.2. Warranty Certification

A valid warranty certificate shall be provided for all major system components, specifying the coverage period, terms, and conditions.

3.3. ETL (Electrical Testing Laboratories) Certification

Demonstrates compliance with North American safety standards, equivalent to UL listings.

3.4. CE (Conformité Européenne) Certification

Compliance with European safety, health, and environmental protection standards for products sold within the European Economic Area

3.5. IQNET occupational health and safety management system certificate

Issued through **IQNET international network**, demonstrating adherence to **ISO 45001** or equivalent occupational health and safety management systems.

3.6. ISO 9001:2015

Certification for an effective quality management system, required for consistency in production and service quality.

3.7. TÜV Rheinland Certification

Certification by **TÜV Rheinland** or equivalent is required to verify independent third-party testing of module safety, performance, and long-term durability in accordance with global norms.

4. Grid Integration: The system must be net metering-ready, allowing for efficient energy export to the utility grid and optimized energy usage.

The system shall be net metering-ready in compliance with the Department of Energy (DOE) and Energy Regulatory Commission (ERC) guidelines under the Renewable Energy Act of 2008 (RA 9513).

5. Safety Compliance: All electrical components and installations must adhere to the Philippine Electrical Code (PEC), IEC 62446, and IEEE 1547 standards for solar photovoltaic systems.
6. Structural Compliance: The mounting system and installation must comply with the National Building Code of the Philippines and the Structural Code of the Philippines to ensure stability and durability.
7. Fire and Electrical Safety: The system must meet the safety requirements of NFPA 70 (National Electrical Code), the Revised Fire Code of the Philippines (RA 9514), and the Philippine Electrical Code (PEC) to mitigate fire and electrical hazards.

VI. PRELIMINARY SURVEYS AND MAPPING

The hybrid solar power system will be installed on the roof of the BSWM Central Office Main Building, Convention Hall, BSWM Dormitory, and the second-floor pergola of the Main Building. The approximate area of the available installation location is 800 square meters.

VII. PRELIMINARY INVESTIGATIONS

The BSWM Central Office's estimated average monthly energy consumption for 2024 is 72,000

kWh, with an average load of approximately 250kW. Additionally, the building's electrical system is a Y-grounded secondary metered system with a voltage of 240V/139V, 3-phase, 60Hz.

VIII. SCOPE OF WORKS:

1. Site Survey and Documentation

Conduct a comprehensive site survey to obtain accurate measurements and detailed documentation of all existing buildings within the BSWM Central Office premises.

2. Roof Replacement

2.1 Replace the existing roof of the BSWM main building to ensure it can safely support the additional structural loads of the solar photovoltaic (PV) system.

2.2 Ensure that the new roof design complies with the National Building Code of the Philippines (NBCP) and its Implementing Rules and Regulations (IRR).

2.3 Conduct a comprehensive structural assessment of the existing roof by a **licensed structural engineer** to determine load-bearing capacity, assess structural integrity, and identify necessary reinforcements.

2.4 Use high-quality, durable, and weather-resistant materials for the roof replacement.

2.5 Provide and install appropriate thermal insulation material as part of the roof replacement to minimize heat transfer and improve thermal performance.

2.6 Coordinate with the end-user, BSWM, to develop and implement a phased construction schedule that minimizes disruption to building operations and ensures continued access and safety for personnel during the roof replacement process.

2.7 Dismantle and dispose of old roofing materials in compliance with the Ecological Solid Waste Management Act of 2000 (RA 9003) and all relevant DENR and LGU regulations. Ensure proper segregation, transport, and disposal of debris at authorized waste disposal or recycling facilities.

3. Processing of Necessary Plans and Permits

The contractor shall also process the necessary permits and coordinate with relevant agencies to obtain approvals in a timely manner.

3.1 Develop the necessary as-built plan in the following disciplines, as required for the processing of building and occupancy permits. All plans shall be duly signed and sealed by licensed professionals per Professional Regulation Commission (PRC), and may include but are not limited to:

3.1.1 Architectural Plan

3.1.2 Civil/Structural-Plan

3.1.3 Electrical Plan

3.1.4 Plumbing/Sanitary Plan

3.1.5 Mechanical Plan

3.1.6 Electronics Plan

3.2 Ensure that all plans are in accordance with the standards set by the National Building Code of the Philippines and the Quezon City government.

3.3 Processing of Building Permit and Certificate of Occupancy

3.3.1 Prepare all necessary forms and documents required for the permit application.

3.3.2 Submit plans and documents to the Quezon City Department of the Building Official (DBO).

3.3.3 Coordinate with concerned agencies and ensure timely compliance with regulatory requirements.

3.4 Secure the following documents:

3.4.1 Building Permit

3.4.2 All permits must be supported by signed and sealed plans by licensed professionals under the **Professional Regulation Commission (PRC)**.

3.4.3 Fire Safety Inspection Certificate from the Bureau of Fire Protection

3.4.4 Certificate of Occupancy

3.4.5 The Contractor shall provide regular updates and progress reports to BSWM, documenting the status of each permit application, submission timelines, agency feedback, and expected approval schedules.

3.5 Deliverables:

3.5.1 Complete set of as-built plans, signed and sealed by licensed professionals.

3.5.2 Approved Building Permit and all required ancillary permits.

3.5.3 Fire Safety Inspection Certificate.

3.5.4 Certificate of Occupancy.

3.5.5 Other relevant permits and certifications may be required by authorities, including but not limited to the above.

4. System Design

4.1. The Contractor shall design a hybrid solar power system tailored to the energy needs of the BSWM Central Office Building.

4.2. The Contractor shall prepare detailed engineering plans, including but not limited to:

4.2.1. Solar panel layout and mounting structure.

4.2.2. Inverter and hybrid controller specifications.

4.2.3. Battery bank design, including capacity, type, and location.

4.2.3.1. Battery bank storage shall be in a containerized system with provisions for an air-conditioning unit to maintain optimal operating conditions.

4.2.4. Electrical wiring and connection diagrams.

4.2.5. Grid integration plan

4.3. Ensure the design complies with the following local regulations, building codes, and industry standards:

- Philippine Electrical Code (PEC)
- National Building Code of the Philippines (PD 1096)
- Renewable Energy Act of 2008 (RA 9513)
- Relevant Department of Energy (DOE) and Energy Regulatory Commission (ERC) guidelines
- International Electrotechnical Commission (IEC) standards
- Bureau of Fire Protection (BFP) Fire Code (RA 9514) safety provisions

5. Bill of Materials (BOM)

5.1. The Contractor shall provide a comprehensive Bill of Materials (BOM) that enumerates all equipment, components, and materials necessary for the complete installation and operation of the hybrid solar photovoltaic system.

5.2. Ensure all materials and equipment are of high quality and comply with relevant standards.

6. Supply of Necessary Materials, Equipment, and Tools

6.1. The contractor shall supply all materials, equipment, tools, and accessories necessary for the complete and proper implementation of the hybrid solar power system project. This includes all components required for the solar PV system, battery energy storage system, electrical integration, roof replacement, and other associated works.

6.2. The winning bidder shall provide a certificate of distributorship for the major components of the hybrid solar power system, including but not limited to solar PV panels, battery energy storage system, and inverters. This certificate must demonstrate the bidder's authority to supply and install the specified components.

- 6.3. The contractor shall also be responsible for supplying all necessary tools, instruments, and testing devices required for the proper installation, testing, commissioning, and maintenance of the system. These tools must be appropriate for the scope of work and shall be handled only by qualified personnel.
- 6.4. All supplied items must conform to the approved technical specifications, design parameters, and applicable safety, environmental, and quality standards.
- 6.5. Only new, unused, and undamaged materials, equipment, and tools shall be supplied. Prior to the supply of materials, the contractor shall submit product datasheets, certifications, and relevant test reports (if applicable) for BSWM's review and approval.
- 6.6. The contractor shall ensure timely supply and delivery of all items to support uninterrupted progress of the project according to the approved schedule.
- 6.7. The contractor shall be responsible for the proper handling, secure storage, and protection of all supplied items at the project site to maintain their quality and readiness for installation

7. Installation and Commissioning

- 7.1 The Contractor shall perform the installation of the hybrid solar power system, including photovoltaic (PV) modules, inverters, balance of system (BOS), and the containerized battery bank storage, strictly in accordance with the approved engineering design and applicable standards.
- 7.2 Install an air-conditioning unit for the battery storage container to ensure proper temperature control.
- 7.3 Conduct testing and commissioning to ensure the system is fully operational and meets performance expectations.
- 7.4 Provide comprehensive training for BSWM personnel on the operation, monitoring, and maintenance of the hybrid solar power system. Training shall be conducted by qualified technical personnel and must include both classroom-style instruction and practical, hands-on demonstrations. Participants shall receive printed and digital copies of system manuals, maintenance schedules, and troubleshooting guides. Upon completion, the Contractor shall issue Training Certificates to all attendees and submit a Training Completion Report to BSWM for documentation purposes.

8. Documentation and Reporting

- 8.1. Submit a detailed project report, including:
 - 8.1.1. Final design and engineering plans.
 - 8.1.2. Bill of Materials (BOM).
 - 8.1.3. Test and commissioning results.
 - 8.1.3.1. Operation and maintenance manual.

- 8.2. Prepare and submit all necessary engineering, design investigation, detailed electrical plans, technical specifications, detailed cost estimates, and construction/installation schedules.
- 8.3. Provide complete supply of labor, materials, equipment, and necessary facilities for the Design and Build Solar PV System.
- 8.4. Submit all construction/installation records, as-built plans/drawings, certificates of warranties, manuals, and other relevant documents.
- 8.5. Prior to commencing work in each designated area or task, the contractor shall submit a Project Schedule/Gantt Chart outlining the timeline, key milestones, and dependencies. The submission date for this schedule shall be coordinated with the end-user or any duly authorized personnel to ensure alignment with project requirements and operational constraints.

9. Ownership of Plans and Documents

- 9.1. BSWM shall retain ownership of all plans and documents submitted for this project. These documents may be used for other BSWM projects requiring similar engineering designs and specifications.
- 9.2. Any unauthorized use or disclosure of project documents by the Contractor or its personnel, without written permission from BSWM, shall be considered a breach of contract and may be subject to legal action under applicable laws.

10. Project Execution Monitoring

- 10.1. Monitor the execution of the project to ensure compliance with timelines, quality standards, and project objectives.
- 10.2. The contractor shall designate qualified personnel to attend all project meetings and provide comprehensive project status reports. The assigned personnel must be professionals with the requisite technical expertise and experience relevant to the project scope.
 - 10.2.1. The project status reports shall include the following components:
 - 10.2.1.1. High-quality site photographs documenting project progress, key milestones, and any areas of concern.
 - 10.2.1.2. A summary of project walkthrough highlights, including observations, compliance with specifications, and any identified issues requiring attention.
 - 10.2.1.3. Recommendations for alternative solutions or variations in scope, if necessary, to enhance project efficiency, mitigate risks, or address unforeseen challenges.
 - 10.2.1.4. Any additional relevant information requested by the client or project stakeholders to accurately reflect the progress, challenges, and overall performance of the project.

11. Preventive Maintenance Plan

- 11.1. Develop a comprehensive Preventive Maintenance Plan for the installed hybrid solar power system, including the containerized battery bank and air-conditioning unit. The plan must cover routine inspections, cleaning, testing, system performance monitoring, and component replacement schedules.
- 11.2. Ensure the plan aligns with industry standards, equipment manufacturer recommendations, and the operational requirements of the BSWM Central Office.
- 11.3. The plan shall include, but not be limited to, the following components:
 - 11.3.1. Maintenance activities and frequencies for solar panels, inverters, hybrid controllers, batteries, air-conditioning unit, and electrical connections.
 - 11.3.2. Inspection checklists and performance benchmarks
 - 11.3.3. Safety protocols and preventive measures to avoid system failures.
 - 11.3.4. Emergency maintenance response procedures.
- 11.4. Prepare a detailed cost estimate for the implementation of the Preventive Maintenance Plan, including labor, materials, tools, and service contracts (if applicable).
- 11.5. The winning bidder shall provide free preventive maintenance services for a period of one (1) year from the date of project completion and system turnover.
- 11.6. To ensure the continuity and integrity of system operations and to prevent the voidance of equipment warranties, the winning bidder shall be designated as the official Preventive Maintenance Service Provider for the system for a period of four (4) years following the one-year free preventive maintenance period. This provision ensures that maintenance is carried out by a qualified party familiar with the installed system. The remaining four (4) years of preventive maintenance services shall be covered by a separate payment arrangement and shall be subject to BSWM's existing procurement policies, annual performance evaluation, and availability of funds.
- 11.7. Submit the Preventive Maintenance Plan and cost estimate as part of the final project documentation.

IX. GENERAL REQUIREMENTS

2. Preliminary Conceptual Design

Submission of both soft and hard copies (A3 size) of the preliminary conceptual design, including electrical layout and general system configuration.

3. Electrical Load Study

Submission of the study results detailing the peak electrical load analysis of the BSWM Central Office building.

4. Technical Specifications

- Submission of both soft and hard copies of the technical specifications of all materials, equipment and components to be used or installed in the project.

5. Detailed Cost Estimate

Submission of soft and hard copies of the Detailed Cost Estimate, itemized by work activity and materials, compliant with current government costing guidelines.

6. Project Schedule

Submission of soft and hard copies of the Project Schedule, using PERT/CPM methodology, covering the period from design development to project completion.

7. Detailed Engineering Design

Submission of soft and hard copies (A3 size) of the Detailed Engineering Design (DED), duly signed and sealed by licensed professionals, in accordance with the National Building Code of the Philippines and other applicable standards.

8. Responsibilities of the contractor.

7.1 The contractor is required to conduct site surveys to verify the present condition of the site and determine potential problems that may affect the implementation of the project.

7.2 The contractor shall provide all necessary resources (services and materials) to complete the project. The contractor is required to submit the corresponding list to declare the personnel, equipment, materials, tools, vehicles, etc. to be deployed in this project.

7.2.1 No work shall be initiated until the Notice to Proceed (NTP) from the procuring entity has been issued.

7.3 The contractor shall only be allowed to work at the site within the approved schedules provided by the BGA unless otherwise agreed upon between the BSWM, the Contractor and the BGA.

7.4 The contractor shall provide the materials, tools, safety equipment, labor and other necessary services capable of producing the required quality and quantity of work to complete the project.

7.4.1 The contractor shall be responsible for the security of all materials and equipment before and during the project implementation. Materials shall be carefully handled, properly stored, and adequate, defective items shall be replaced without additional cost to the Bureau of Soils and Water Management.

7.4.2 All workmanship shall be of good quality and performed in accordance with industry standards.

7.5 All required documents/permits by the building administration prior to the installation activity shall be carried out by the contractor, unless noted otherwise agreed.

7.5.1 Any permits, insurance, bonds and other necessary fees.

- 7.6 The contractor shall always keep the work area free from accumulation of construction debris/scrap/waste materials and organized. Ensure that all the area covered in the statement of work shall be left on a condition that is acceptable to the Building Administration.
- 7.7 The contractor shall not conduct any work that is beyond this statement of work. Any work done by the contractor beyond this statement of work and specifications without direction from the authorities will be at the contractor's own risk and at no cost to the BSWM.
- 7.8 Should any changes or variations be necessary, the Contractor must submit a formal written request outlining the proposed modification. No variation shall be implemented unless formally approved in writing by the Head of the BGA or a duly authorized BSWM official.

X. MANPOWER REQUIREMENTS

The contractor shall provide adequate number of duly qualified manpower to perform the class of work stated herein. All manpower shall be authorized, properly trained, equipped organized to perform all works in accordance with the terms and conditions stipulated within the project duration.

Key Personnel	Minimum Qualification & Duties
Project Manager (1)	Licensed engineer with at least 5 years of experience in renewable energy projects.
Professional Electronics and Communication Engineer (1)	3 years' experience as PECE specialized Review, checking & certification of the design of Solar PV.
Registered Electrical Engineer (1)	License Registered Electrical engineer with 3 years' experience in Solar PV design and construction. Prepare a layout of wirings, devices and equipment. Provide details and sequence of operation.
Professional Electrical Engineer (1)	License Professional Electrical Engineer with 3 years' experience in Solar PV design and construction. Prepare a layout of wirings, devices and equipment. Provide details and sequence of operation.
Operator/Draftsman (1)	At least 1-year experience as cad operator/draftsman. Plotting lay-out and details at Auto Cad software.

ty Officer	Must be DOLE-certified with a minimum of three (3) years of experience in construction and renewable energy projects, ensuring compliance with occupational health and safety standards during installation.
ctural/Civil Engineer	License and possess a minimum of 3 years of experience in structural design and construction.
ensed Architect	Must have at least 3 years of experience in architectural planning, preparation of as-built plans, and coordination of permit application
Registered Master Plumber	Licensed professional with at least 3 years of experience in plumbing and sanitary system design, installation, and maintenance.
Professional Mechanical Engineer (PME)	Licensed PME with a minimum of 5 years of experience in mechanical systems, including HVAC and fire protection systems.

XI. DELIVERABLES AND TIMELINE

The project shall be completed within 360 calendar days upon receipt of the Notice to Proceed (NTP) or Purchase Order (P.O.). In the event of unacceptable or unjustified delays that exceed the agreed-upon timeline, BSWM will impose penalties in accordance with government procurement and accounting rules.

STAGE I – AS-BUILT PLAN, BUILDING PERMITS, AND SOLAR SYSTEM DESIGN

Duration: 180 Calendar Days upon receipt of Notice to Proceed

1. Conduct of Site Surveys and Preparation of As-Built Plans
2. Processing and Submission of Permits
 - 2.1. Including, but not limited, to Building Permit and Occupancy Permit from LGU of Quezon City
3. Conduct of Engineering Surveys and Site Investigations for Solar System Design

4. Submission of Final Solar Power System Design to be submitted 30 Days upon receipt of NTP
- 4.1. Includes Working Drawings, Technical Specifications, and Cost Estimates
5. Submission of Detailed Program of Work, Work Plan, and Implementation Schedule
6. Approval of Final Design Documents
- 6.1. Signed and sealed by respective licensed professionals

STAGE II – INSTALLATION AND COMMISSIONING OF HYBRID SOLAR POWER SYSTEM

Duration: 180 Calendar Days after completion of Stage I

1. Procurement of Solar Equipment, Materials, and Accessories
2. Roof Replacement and Structural Works (as necessary)
3. Installation of Hybrid Solar Power System Components
- 3.1. Includes Solar Panels, Inverters, Batteries, and Electrical Systems
4. Testing, Commissioning, and Grid Synchronization of the System
5. Submission of As-Built Drawings and Operation & Maintenance (O&M) Manuals
6. Conduct of User Training on System Operation and Maintenance
7. Rectification of Punch List Items and Final Project Turnover to BSWM

XII. PROJECT SAFETY PROTECTION

The contractor shall provide the following warranties for the hybrid solar power system and all associated works:

1. Workmanship Warranty: The contractor shall warrant that all work performed shall be free from defects in workmanship for a period of one (1) year from the date of project completion. Any defects or deficiencies identified within this period shall be repaired or rectified by the contractor at no additional cost to the procuring entity.
2. Inverter System Warranty: The inverter system shall be covered by a minimum five (5) year warranty against manufacturing defects and performance issues.
3. Solar Panel Warranty: All solar panels shall be covered by a minimum five (5) year warranty for defects in materials and workmanship.
4. Battery System Warranty: The battery storage system shall carry a minimum five (5) year warranty covering performance degradation beyond acceptable levels and material defects.
5. All warranties shall commence from the official date of project completion and acceptance.

The contractor shall provide original warranty certificates from the manufacturers and ensure that the warranties are valid and enforceable within the Philippines.

XIII. TERMS OF PAYMENT/ PAYMENT SCHEME

1. The BSWM shall pay the contracted service provider after the completion of the actual services rendered and upon receipt of the billing statement/ statement of account and other documents required for the processing of payment.
2. Proposed payment percentage is aligned per government procurement and accounting rules.

MILESTONE / DELIVERABLE	PAYMENT PERCENTAGE
Mobilization Fee (upon issuance of Notice to Proceed)	15%
Upon submission of approved Building, Occupancy, and Ancillary Permits	10%
Upon Submission of Final Design, Working Drawings, Detailed Technical Specifications, and Cost Estimates	10%
Completion of Roof Replacement	15%
Completion of installation of the solar PV system and battery energy storage system	30%
Successful Testing, Commissioning, and Grid Synchronization	15%
Final acceptance, turnover, and submission of all as-built plans, manuals, and training	5%
TOTAL	100%

XIV. DATA ACCURACY AND CONTRACTOR RESPONSIBILITY

1. The above data are for reference only. The procuring entity does not guarantee that these data are fully correct, up to date, and applicable to the project at hand. The contractor is responsible for the accuracy and applicability of all data, including the above, that it will use in its design and build proposal and services.

XV. RESPONSIBILITIES OF THE END-USER DURING THE PROJECT IMPLEMENTATION

1. The End-User Unit in coordination with PMU or any duly authorized representative shall inspect the compliance of the contractor to the materials and tools delivered in accordance with the specifications prior to implementation.

2. The End-User or any duly authorized representative shall supervise the implementation of the project to monitor the progress and compliance of the contractor with the specified methodologies and safety precautions.
3. The End-User Unit or its representative shall raise concerns to the contractor if there are found poor workmanship, non-compliance, or substandard practices observed during implementation.
- 3.1 The End-User Unit or its representative shall provide assistance to the contractor throughout implementation, and warranty period as the need arises.
4. The End-User shall ensure timely feedback and decision-making on contractor submissions requiring review, such as variation orders, design changes, or material approvals.

XVI. CONFIDENTIALITY

1. All relevant data such as plans, diagrams, designs, specifications, and other supporting records or materials prepared in the course of the design-and-build shall be the property of the Procuring Entity and shall not be used by the Designer/Contractor without the prior written approval. Print and electronic copies of such documents shall be turned-over to the Procuring Entity. In addition, all data and information related to the project shall be treated with strict confidentiality and in no instance shall they be released or revealed to a third party without written consent of the Procuring Entity.

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	
<i>Class “A” Documents</i>	
<u>Legal Documents</u>	
<input type="checkbox"/>	(a) Valid PhilGEPS Registration Certificate (Platinum Membership) (all pages) in accordance with Section 8.5.2 of the IRR;
<u>Technical Documents</u>	
<input type="checkbox"/>	<p>(b) 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; <u>and</u></p> <p>a) relevant statements of all on-going, completed, awarded but not yet started design/design and build related contracts, curriculum vitae of key staff, partners or principal officers; and</p> <p>b) valid licenses issued by the Professional Regulatory Commission (PRC) for design professionals. (a)</p>
<input type="checkbox"/>	<p>(c) The eligibility of design and build contractors shall be based on the legal, technical and financial requirements abovementioned. In the technical requirements, the design and build contractor (as solo or in joint venture/consortia) should be able to comply with the experience requirement under the IRR of R.A. 9184, where one of the parties (in a joint venture/consortia) should have at least one similar project, both in design and construction, with at least 50% of the cost of the ABC.</p> <p>or</p> <p>If the bidder has no experience in design and build projects on its own it may enter into subcontracting, partnerships, or joint venture with design or engineering firms for the design portion of the contract.</p>
<input type="checkbox"/>	(d) Statement of the bidder’s Single Largest Completed Contract (SLCC) similar to the contract to be bid, except under conditions provided under the rules; <u>and</u>
<input type="checkbox"/>	(e) Special PCAB License in case of Joint Ventures <u>and</u> registration for the type and cost of the contract to be bid; <u>and</u>
<input type="checkbox"/>	(f) Original copy of Bid Security. If in the form of a Surety Bond, submit also a certification issued by the Insurance Commission <u>or</u> original copy of Notarized Bid Securing Declaration; <u>and</u>

	(g) 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
	(h) Preliminary Conceptual Design Plans in accordance with the degree of details specified by the procuring entity
	(i) Design and construction methods;
	(j) List of design and construction personnel, to be assigned to the contract to be bid, with their complete qualification and experience data; and
	(k) List of design and construction personnel, to be assigned to the contract to be bid, with their complete qualification and experience data;
■	(l) 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.
<u>Financial Documents</u>	
■	(m) The prospective bidder's computation of Net Financial Contracting Capacity (NFCC).
<i>Class "B" Documents</i>	
■	(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.
	a) relevant statements of all on-going, completed, awarded but not yet started design/design and build related contracts , curriculum vitae of key staff, partners or principal officers; and b) valid licenses issued by the Professional Regulatory Commission (PRC) for design professionals.

	Note: If the bidder has no experience in design and build projects on its own it may enter into subcontracting, partnerships, or joint venture with design or engineering firms for the design portion of the contract.
II. FINANCIAL COMPONENT ENVELOPE	
<input type="checkbox"/>	(o) Original of duly signed and accomplished Financial Bid Form; <u>and</u>
<i><u>Other documentary requirements under RA No. 9184</u></i>	
<input type="checkbox"/>	(p) Original of duly signed Bid Prices in the Bill of Quantities; <u>and</u>
<input type="checkbox"/>	(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; <u>and</u>
<input type="checkbox"/>	(r) Cash Flow by Quarter.

