



Republic of the Philippines  
Department of Transportation

**CIVIL AVIATION AUTHORITY OF THE PHILIPPINES**

MIA Road, Pasay City

**PURCHASE/INSTALLATION OF 1.5 MVA GENSET -  
PUERTO PRINCESA INTERNATIONAL AIRPORT  
(RE-BID)**

**PROJECT IDENTIFICATION NO.  
23-007-04**

**Date of Issue of Bid Docs**

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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***



## Invitation to Bid for

### **PURCHASE/INSTALLATION OF 1.5 MVA GENSET - PUERTO PRINCESA INTERNATIONAL AIRPORT (RE-BID)**

**Bid No. 23-007-04**

1. The Civil Aviation Authority of the Philippines through the Corporate Operating Budget CY 2023 Project intends to apply the sum of **TWENTY-THREE MILLION EIGHT HUNDRED NINETY-NINE THOUSAND FOUR HUNDRED NINETY-NINE PESOS AND 19/100 (PHP 23,899,499.19)** being the Approved Budget for the Contract (ABC) to payments under the contract for **PURCHASE/INSTALLATION OF 1.5 MVA GENSET - PUERTO PRINCESA INTERNATIONAL AIRPORT (RE-BID) (Bid No. 23-007-04)**. Bids received in excess of the ABC shall be automatically rejected at bid opening.
2. The Civil Aviation Authority of the Philippines now invites bids for the above Procurement Project. Completion of the Works is required within **One Hundred Sixty-Eight (168) Calendar Days upon receipt of the NOTICE TO PROCEED**. Bidders should have completed a contract similar to the Project. The description of an eligible bidder is contained in the Bidding Documents, particularly, in Section II (Instructions to Bidders).
3. Bidding will be conducted through open competitive bidding procedures using non-discretionary “*pass/fail*” criterion as specified in the 2016 revised Implementing Rules and Regulations (IRR) of Republic Act (RA) No. 9184.
4. Interested bidders may obtain further information from the Civil Aviation Authority of the Philippines and inspect the Bidding Documents at the address given below from Monday to Friday, 8:00 AM to 5:00 PM.
5. A complete set of Bidding Documents may be acquired by interested bidders on **21 June 2023 until deadline of submission of bid** from the given address and website/s below and upon payment of the applicable fee for the Bidding Documents, pursuant to the latest Guidelines issued by the GPPB, in the amount of **Php 28,000.00 (inclusive of 12% VAT)**. The Procuring Entity shall allow the bidder to present its proof of payment for the fees by presenting the official receipt in person.
6. The Civil Aviation Authority of the Philippines will hold a Pre-Bid Conference<sup>1</sup> on **29 June 2023 @ 9:30 AM** through video conferencing/webcasting via Jitsi/Zoom/Google Meet, which shall be open to prospective bidders.

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

7. Bids must be duly received by the BAC Secretariat through **manual submission** at the office address as indicated below on or before **11 July 2023 @ 9:30 AM**. Late bids shall not be accepted.
8. All bids must be accompanied by a bid security in any of the acceptable forms and in the amount stated in **ITB** Clause 16.
9. Bid opening shall be on **11 July 2023 @ 9:30 AM** at the given address below and/or through Jitsi/Zoom/Google Meet. Bids will be opened in the presence of the bidders' representatives who choose to attend the activity.
10. The Civil Aviation Authority of the Philippines reserves the right to reject any and all bids, declare a failure of bidding, or not award the contract at any time prior to contract award in accordance with Sections 35.6 and 41 of the 2016 revised Implementing Rules and Regulations (IRR) of RA No. 9184, without thereby incurring any liability to the affected bidder or bidders.
11. For further information, please refer to:

**MR. GARY M. JADIE**

Civil Aviation Authority of the Philippines

BAC Head Secretariat

MIA Road Pasay City

Telefax No. – (02) 7 944-2097

**[www.bac@caap.gov.ph](mailto:www.bac@caap.gov.ph)**

12. Bidding Documents may also be downloaded free of charge from the website of the Philippine Government Electronic Procurement System (PhilGEPS) and the website of the Procuring Entity, provided that bidders shall pay the applicable fee for the Bidding Documents not later than the submission of their bids.

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**CAPTAIN EDGARDO G. DIAZ**  
Chairperson, Bids & Awards Committee



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

## 1. Scope of Bid

The Procuring Entity, Civil Aviation Authority of the Philippines invites Bids for the **PURCHASE/INSTALLATION OF 1.5 MVA GENSET - PUERTO PRINCESA INTERNATIONAL AIRPORT (RE-BID)** with Project Identification Number: **Bid No. 23-007-04**.

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 CY 2023 in the amount of **TWENTY-THREE MILLION EIGHT HUNDRED NINETY-NINE THOUSAND FOUR HUNDRED NINETY-NINE PESOS AND 19/100 (PHP 23,899,499.19)**.

2.2. The source of funding is:

b. GOCC and GFIs, the proposed Corporate Operating Budget

## 3. Bidding Requirements

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

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

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

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

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

## **5. Eligible Bidders**

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

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

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

## **6. Origin of Associated Goods**

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

## **7. Subcontracts**

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

The Procuring Entity has prescribed that:

- a. Subcontracting is not allowed.

## **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 PCAB License is required, and in case of joint ventures, a valid special PCAB License, and registration for the type and cost of the contract for this Project. Any additional type of Contractor license or permit shall be indicated in the **BDS**.
- 10.4. A List of Contractor's key personnel (e.g., Project Manager, Project Engineers, Materials Engineers, and Foremen) assigned to the contract to be bid, with their complete qualification and experience data shall be provided. These key personnel must meet the required minimum years of experience set in the **BDS**.
- 10.5. A List of Contractor's major equipment units, which are owned, leased, and/or under purchase agreements, supported by proof of ownership, certification of availability of equipment from the equipment lessor/vendor for the duration of the project, as the case may be, must meet the minimum requirements for the contract set in the **BDS**.

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

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

## 12. Alternative Bids

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

## 13. Bid Prices

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

## 14. Bid and Payment Currencies

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

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

- a. Philippine Pesos.

## 15. Bid Security

15.1. The Bidder shall submit a Bid Securing Declaration or any form of Bid Security in the amount indicated in the **BDS**, which shall be not less than the percentage of the ABC in accordance with the schedule in the **BDS**.

15.2. The Bid and bid security shall be valid until *[indicate date]*. Any bid not accompanied by an acceptable bid security shall be rejected by the Procuring Entity as non-responsive.

## 16. Sealing and Marking of Bids

Each Bidder shall submit one (1) copy of the first and second components of its Bid.

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

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

## **17. Deadline for Submission of Bids**

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

## **18. Opening and Preliminary Examination of Bids**

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

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

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

## **19. Detailed Evaluation and Comparison of Bids**

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

19.2. If the Project allows partial bids, all Bids and combinations of Bids as indicated in the **BDS** shall be received by the same deadline and opened and evaluated simultaneously so as to determine the Bid or combination of Bids offering the lowest calculated cost to the Procuring Entity. Bid Security as required by **ITB** Clause 16 shall be submitted for each contract (lot) separately.

19.3. In all cases, the NFCC computation pursuant to Section 23.4.2.6 of the 2016 revised IRR of RA No. 9184 must be sufficient for the total of the ABCs for all the lots participated in by the prospective Bidder.

## **20. Post Qualification**

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

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

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

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



# Bid Data Sheet

ITB Clause	
5.2	<p>The Bidder must have completed within <b>eight (8) years</b> from the date of submission and receipts of bid, a single contract that is similar to this project, equivalent to at least fifty percent (50%) of the ABC.</p> <p>For this purpose, contracts similar to the Project refer to contracts which have the same major categories of work, which shall be:</p> <p><b>“Building Construction with electro-mechanical works “or “Construction of Industrial Plant”</b></p>
7.1	Subcontracting is not allowed.
10.1	<p>Bidder shall submit all eligibility and technical documents as specified in <b>Section IX. Checklist of Technical and Financial Documents:</b></p> <p><b>Class “A” Documents</b></p> <p><u>Legal Documents</u></p> <p>a. Valid PhilGEPS Registration Certificate (Platinum Membership) (all pages).</p> <p><u>Technical Documents</u></p> <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.); <b>and</b></p> <p>c. Statement of the bidder’s Single Largest Completed Contract (SLCC) similar to the contract to be bid, except under conditions provided under the rules.; <b>and</b></p> <p>d. Valid PCAB License is required, and in case of JV Special PCAB License; <b>and</b> registration for the type and cost of the contract to be bid;</p> <p>e. Original copy of Bid Security. If in the form of a Surety Bond, submit also a certification issued by the Insurance Commission; or Original copy of Notarized Bid Securing Declaration; <b>and</b></p> <p>f. Project Requirements, which shall include the following:</p> <ol style="list-style-type: none"> <li>1. Organizational chart for the contract to be bid; <b>and</b></li> <li>2. List of contractor’s key personnel (<i>e.g.</i>, Project Manager, Project Engineers, Materials Engineers, and Foremen), to be assigned to the contract to be bid, with their complete qualification and experience data; <b>and</b></li> <li>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</li> </ol> <p>g. Original duly signed Omnibus Sworn Statement (OSS); <b>and</b> 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; and</p>

	<p>This shall include all of the following documents as attachment to the Omnibus Sworn Statement:</p> <ol style="list-style-type: none"> <li>1. Certification, under oath, attesting that they have no pending case(s) against the Government, in addition to the eligibility requirements as prescribe under the 2016 Revised Implementing Rules and Regulation (R-IRR) of RA No. 9184; <b>and</b></li> <li>2. Legal Clearance to be issued by the CAAP Enforcement and Legal Service with respect to the non-pending cases of the prospective bidders against this Authority; <b>and</b></li> <li>3. Bid Bulletins (if applicable); and</li> </ol> <p><b>h. Certificate of Site Inspection</b> duly signed by the <b>ANS Facility-in-Charge of Puerto Princessa International Airport</b> or his duly authorized representative; and</p> <p>This shall include all the following documents as attachment to the Certificate of Site Inspection:</p> <ol style="list-style-type: none"> <li>1. Copy of company ID of the person who conducted the site inspection; <b>and</b></li> <li>2. Copy of the airport/facility visitor's logbook appearing the names and signatures of inspectors; <b>and</b></li> <li>3. Picture of the proposed site including the personnel who conducted the site inspection together with the ANS Facility-in-Charge or his duly authorized representative: <b>and</b></li> </ol> <p><u>Financial Documents</u></p> <ol style="list-style-type: none"> <li>i. The prospective bidder's computation of Net Financial Contracting Capacity (NFCC).</li> </ol> <p><b>Class "B" Documents</b></p> <ol style="list-style-type: none"> <li>j. 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; <b>or</b> 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.</li> </ol> <p><b>Bids not complying with the above instruction shall be disqualified.</b></p>
10.3	<p>Valid PCAB License or Special PCAB License in case of Joint Ventures, and Registration (<i>Small B Category C &amp; D – General Building (Building and Industrial Plant)</i>) with <b>SP- Electrical or Mechanical or Electro-Mechanical works</b> for the type and cost of the contract to be bid.</p> <p><b>Bids not complying with the above instruction shall be disqualified.</b></p>
10.4	<p>The key personnel must meet the required minimum years of experience set below:</p>

	<table><tr><td><u>Key Personnel</u> Project Engineer Electrical Engineer Mechanical Engineer Civil/Structural Engineer Foreman Crane Operator Crane Rigger Safety and Health Officer Programmer</td><td><u>General Experience</u> Five (5) years in General Building</td><td><u>Relevant Experience</u> Three (3) years in Construction of Industrial Plant, Electro-mechanical works</td></tr></table> <p><b>Bids not complying with the above instruction shall be disqualified.</b></p>	<u>Key Personnel</u> Project Engineer Electrical Engineer Mechanical Engineer Civil/Structural Engineer Foreman Crane Operator Crane Rigger Safety and Health Officer Programmer	<u>General Experience</u> Five (5) years in General Building	<u>Relevant Experience</u> Three (3) years in Construction of Industrial Plant, Electro-mechanical works																														
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10.5	<p>The minimum major equipment requirements are the following:</p> <table><tr><td><u>Equipment</u></td><td><u>Capacity</u></td><td><u>Number of Units</u></td></tr><tr><td>Bagger Concrete Mixer</td><td></td><td>One (1) Unit</td></tr><tr><td>Concrete Vibrator</td><td></td><td>One (1) Unit</td></tr><tr><td>Welding Machine</td><td></td><td>One (1) Unit</td></tr><tr><td>Compactor</td><td></td><td>One (1) Unit</td></tr><tr><td>Bar Cutter</td><td></td><td>One (1) Unit</td></tr><tr><td>Multi Tester</td><td></td><td>One (1) Unit</td></tr><tr><td>Hydraulic Crimping Tool</td><td></td><td>One (1) Unit</td></tr><tr><td>Telescopic Crane</td><td></td><td>One (1) Unit</td></tr><tr><td>Power tools</td><td></td><td>One (1) Unit</td></tr><tr><td>Laptop/PC for programming</td><td></td><td>One (1) Unit</td></tr></table> <p><b>Bids not complying with the above instruction shall be disqualified.</b></p>	<u>Equipment</u>	<u>Capacity</u>	<u>Number of Units</u>	Bagger Concrete Mixer		One (1) Unit	Concrete Vibrator		One (1) Unit	Welding Machine		One (1) Unit	Compactor		One (1) Unit	Bar Cutter		One (1) Unit	Multi Tester		One (1) Unit	Hydraulic Crimping Tool		One (1) Unit	Telescopic Crane		One (1) Unit	Power tools		One (1) Unit	Laptop/PC for programming		One (1) Unit
<u>Equipment</u>	<u>Capacity</u>	<u>Number of Units</u>																																
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11.1.	<p>The discounts stated in the Financial Bid Form shall be computer written with the same font style and size as of the whole text of the said Form.</p> <p><b>Discounts that are either handwritten, type written or computer written in other font style and size shall not be considered.</b></p> <p>The second bid envelope shall contain the financial documents for the Bid as specified in <b>Section IX. Checklist of Technical and Financial Documents</b>. This shall include the complete accomplishment of all of the following documents as stated and required under Section VIII of this PBD and shall form part of the bidder’s financial documents:</p> <ul style="list-style-type: none"><li>a) Original of duly signed and accomplished Financial Bid Form; and</li><li>b) 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; <b>and</b></li><li>c) Cash Flow by Quarter and Payment Schedule</li></ul> <p>Note: (Please refer to the Annexes provided herein)</p> <p><b>Bids not complying with the above instruction shall be disqualified.</b></p>																																	
11.2	Bid <b>exceeding</b> the Approved Budget for Contract (ABC) of the project shall be disqualified.																																	
12	No further instructions.																																	
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> <ul style="list-style-type: none"><li>a. The amount of not less than two percent (2%) of ABC or <b>Php 477,990.00</b> if bid security is in cash, cashier’s/manager’s check, bank draft/guarantee or irrevocable letter of credit;</li></ul>																																	

	<p>b. The amount of not less than five percent (5%) of ABC or <b>Php 1,194,975.00</b>) if bid security is in Surety Bond.</p>
16	<p>1. Each and every page thereof shall be initialed/signed by the duly authorized representative/s of the Bidder.</p> <p>Submitted Eligibility, Technical and Financial documents shall be properly marked with index tabs (ear tab) and must be sequentially paginated in accurate order in the form i.e. “page 3 of 100”. Page number of last page of the document (per envelope basis).          Pagination should be sequential based on the entire span of the whole documents inside the envelope.</p> <p><b>Bids not complying with the above instructions shall be automatically disqualified.</b></p> <p>2. Each Bidder shall submit <b>one (1)</b> original bid.</p>
19.2	<p>Partial bid is not allowed. The infrastructure project is packaged in a single lot and the lot shall not be divided into sub-lots for the purpose of bidding, evaluation, and contract award.</p>
20	<p>The Bidder with the Lowest Calculated Bid (LCB) that complies with and is responsive to all the requirements and conditions shall submit its</p> <ul style="list-style-type: none"> <li>a) Latest income and business tax returns filed through the Electronic Filing and Payment System (EFPS);</li> <li>b) Business licenses and permits required by law (Registration Certificate, Mayor’s Permit, Tax Clearance &amp; PCAB License);</li> <li>c) Latest Audited Financial Statements; and</li> <li>d) Key personnel licenses</li> </ul> <p>Failure to submit any of the post-qualification requirements on time, or a finding against the veracity thereof, shall disqualify the bidder for award. Provided, that in the event that a finding against the veracity of any of the documents submitted is made, it shall cause the forfeiture of the Bid Security in accordance with Section 69 of the IRR of RA 9184.</p>
21	<p>The following relevant project documents are required to be submitted by the successful bidder who submitted the LCRB as part of the Contract Agreement during its signing:</p> <ul style="list-style-type: none"> <li>a) Construction schedule</li> <li>b) Bar Chart &amp; S-curve</li> <li>c) PERT/CPM Network Diagram</li> <li>d) Manpower schedule</li> <li>e) Construction methods</li> <li>f) Equipment utilization schedule</li> <li>g) Construction Safety &amp; Health Programs approved by the Department of Labor &amp; Employment for the <b>Purchase/Installation of 1.5 MVA GenSet</b> Project at Puerto Princesa International Airport, Palawan Philippines.</li> </ul>

## ***Section IV. General 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***

# Special Conditions of Contract

GCC Clause	
2	Not applicable.
3.1	The <b>CIVIL AVIATION AUTHORITY OF THE PHILIPPINES</b> shall give possession of all parts of the Site to the Contractor upon receipt of the Notice to Proceed.
6	Certificate of Inspection signed by FIC or his/her representative.
7	One year Defect Liability Period (DLP) plus one (1) year warranty upon completion of works.
10	No dayworks are applicable to the contract.
11.1	The Contractor shall submit the Program of Work to the Procuring Entity's Representative within seven (7) days of delivery of the Notice of Award
11.2	The amount to be withheld for <b>late submission</b> of an updated Program of Work is <b>the price amount of the contract</b> .
13	The amount of the advance payment is <b>fifteen percent (15%) of the total contract price</b> . (Bid Price)
14	No further instructions.
15.1	<p>The date by which the <b>Operating &amp; Maintenance Manuals</b> are required is <b>upon completion of the project</b></p> <p>The date by which <b>"As Built" drawings</b> are required is <b>upon completion of the project</b>.</p> <p>PDF/AutoCAD File of the "As Built" plans shall include as attachment to the required hard copy of the same upon completion of the project.</p>
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 <b>two percent (2%) of the contract price</b> .

## ***Section VI. Specifications***

# **Scope of Work / Technical Specifications**

## **Purchase/Installation of 1.5MVA Genset - Puerto Princesa International Airport**

### **A. OBJECTIVE AND BACKGROUND**

- The Project aims to install a new single 1.5 MVA Diesel Engine Generator Set (Genset) to serve as a back-up to either of the two existing generators in case of the two existing generators unable to operate during its operation.

### **B. PROJECT DURATION**

- The contract duration shall be one hundred sixty-eight (168) calendar days upon receipt of Notice to Proceed.
- Delay in the delivery shall be subject for penalties.

### **C. SCOPE OF WORKS**

#### **C.0**

#### **INITIAL REQUIREMENTS/PROJECT SCOPE**

- Upon receipt of the Notice-to-Proceed (NTP), the Contractor is required to submit the construction design drawings and installation plans for review by CAAP before proceeding with implementation. As-built drawings must also be submitted immediately after the end of the project.
- The equipment and its associated ancillary components that are to be delivered and installed must fulfill the following conditions: latest model, not previously used, not second-hand, and in brand new condition.
- The CAAP mandates that non-OEM bidders (whether acting as a sole bidder or as a joint venture partner) requires that the bidder must be either an exclusive or authorized distributor of the procured equipment, and must possess **an after-sales support capability** agreement with the OEM.
- The Contractor, or their authorized representative, is required to obtain a certificate of site inspection from the ANS Facility-In-Charge or an authorized representative at the Puerto Princesa International Airport prior to commencing any work at the site.
- The Contractor must prioritize the health and safety of workers and the public while complying with all relevant regulations and standards. This requires the implementation of a comprehensive safety program that includes hazard identification, risk assessment, and control measures. All workers and stakeholders should receive proper training and have access to necessary personal protective equipment. The worksite should be regularly monitored and evaluated for safety performance."

## C.1

### GENERAL REQUIREMENTS

**The scope of work involves providing all the necessary tools, labor, supervision, equipment, fixtures, and materials, in proper working condition, to complete the listed items of work.**

- Mobilization and demobilization
- Supply, delivery, installation, testing and commissioning of a single unit brand new 1.5 MVA, 4P, 400V/230V containerized or sound attenuated enclosure Diesel Engine Generator Set (Genset)
- Construction of the Generator's shelter.
- Installation of the 1.5MVA DEGS' concrete pad.
- Design/Fabrication/Delivery and Installation of four (4) – 3000 A, 400/230V, 3Φ Sandwich type with integral ground bus tin-plated copper busduct from the new generator system to the existing generator control panel.
- Supply, delivery, and installation of new draw-out type Air Circuit Breaker, ACB's interlocking, cable, and grounding system.
- Integration to the existing system
- Permits application from local distribution utility, municipality, and other government agencies to install and operate the brand-new generator set.
- Testing and Commissioning.

## C.2

### SUPPLY/DELIVERY/INSTALLATION OF DEGS

**The scope of work involves the following listed work to be done.**

- Supply and delivery of the 1.5 MVA Generator set from the point of origin (Factory and/or Manufacturing Plant) to site where the said to be installed.
- Installation of the containerized or sound attenuated enclosure type (soundproof) 1.5 MVA Genset. The generator set includes an "all weather" enclosure and standard accessories like silencer with flexible exhaust bellows, a 50° industrial radiator, battery with rack & connecting cables, an engine-generator auto start controller, a 2500 AT generator's main breaker.
- Installation/layout of fuel line connecting from the brand-new generator set to the existing storage tank

## C.3

### INTEGRATION OF 1.5 MVA DEGS TO THE EXISTING SYSTEM

**The scope of work involves in the integration of the brand-new generator set to the existing power plant system are the following;**

- The contractor shall provide the necessary labor, tools, supervision, equipment, and materials to fully integrate the 1.5MVA generator set with the existing generator's control board and/ or switch board.
- Design, delivery, installation, supply of labor. Engineer/programmer of SCADA/PLC, controllers, switch hub, enclosures, tools, equipment, devices/modules, cables, and materials require for the integration of DEGS and ACB to the existing Building Management System (BMS)/Power Monitoring System (PMS) with same points/parameters as seen in the Graphical User Interface (GUI) Monitor.

- Design, fabrication, delivery, and installation of four (4) 3000A, 400/230V 3 $\phi$  sandwich type bus duct with integral ground bus made of tin-plated 99.9% copper to connect the brand new generator set to the control panel located inside the power plant building.
- The bus duct design process will specify the dimensions, materials, and electrical characteristics to meet the requirements of the power plant.
- Bus duct fabrication process includes manufacturing the bus duct to the specifications determined in the design phase.
- Bus duct delivery process involves transporting the bus ducts from the manufacturing site to the power plant.
- Supply, delivery, and installation of 4000AT/AF, 600V, 4P draw-out type Air Circuit Breaker (ACB) and power cables. For the purpose of interlocking compatibility and functions, the new ACB to be installed preferably has the same brand or specifications of the existing ACB.
- Provide detailed documentation that outlines the installation process, equipment specifications, and test results.
- Installation of fuel line connecting from the 1.5 MVA Diesel Engine Generator Set to the existing storage tank.
- Test and commissioning of the entire system.

Note: Bus ducts are designed, fabricated, delivered, and installed in accordance with all relevant electrical codes and standards to ensure the safe and reliable operation of the power plant

#### C.4

##### **UPGRADE OF POWER MONITORING SYSTEM**

**The scope of work to be done in the upgrading of the power monitoring system are the following;**

- Routing of data cable via cable tray from the data termination/equipment panel for remote communication
- Re-programming of existing program for remote power monitoring system using SCADA software showing status of the three (3) generators and relevant data information to the new Graphic User Interface power monitoring systems after the addition of the 1.5MVA Genset and its other related components
- Testing and commissioning
- Provide detailed documentation that outlines the installation process, equipment specifications, restoration software stored in CD or in USB, and test results.

#### C.5

##### **GENERATOR'S SHELTER and PAD CONSTRUCTION**

**The scope of work for the construction of generator's pad includes the following works.**

- Design and layout to determine correct size, shape, and placement of the generator pad.
- Clearing, grubbing, and excavation for surface preparation to establish a firm, level, and stable ground.
- Finish with coating or surface treatments if necessary.
- Testing to ensure that it can safely support the weight of the generator and to meet relevant codes.
- Shelter construction as specified in the drawing.

#### C.6

##### **PERMITS AND CLEARANCES**

The contractor is responsible for securing the necessary labor and materials for the above-mentioned works and facilitating the payment to the Local Electric Cooperative of Puerto Princesa, Palawan. The contractor shall be responsible for obtaining the necessary permits, including those from the Municipal government, the Department of Environment and Natural Resources (if any), and the electrical authority, at no additional cost to the procuring entity.

**C.7**

**SITE INSPECTION**

The contractor is recommended to perform a comprehensive site survey to assess and confirm the pertinent local conditions and facilities that could potentially impact the execution of the project

**C.8**

**INJURY TO PERSON OR DAMAGE TO PROPERTY**

The contractor has a duty to ensure the safety of all individuals and to prevent any damage to property in the course of their work or through the actions of their employees. In the event of any injury to persons or damage to property, the contractor shall be held responsible and shall be accountable for addressing any claims made against the Employer as a result of such injury and/or damage.

**C.9**

**MATERIALS**

The materials to be supplied or installed must be brand new and meet the specified requirements, unless indicated otherwise in the plans. For materials without specific requirements, the highest quality available must be used. Samples of these materials must be submitted for approval.

**C.10**

**WORKMANSHIP**

The work must be performed to the highest standards and to the complete satisfaction of the Engineer/Project In-charge, who has the authority to reject any work or materials that do not meet the specifications and plans. The work must be carried out under the direction of the Engineer/Project In-charge.

**C.11**

**TEMPORARY FACILITY/ELECTRICITY AND WATER**

The contractor must supply temporary accommodations for the workers assigned at the job site. The temporary housing should be made of wooden material with a galvanized iron roof and must include cabinets for a first-aid kit and a fire extinguisher. The contractor is responsible for making arrangements and covering the costs for electrical power and water to the temporary facilities

**C.12**

**MANUFACTURER'S DATA**

**The contractor must provide the following information for each item listed, but not limited to;**

- Manufacturer's detailed information and catalogs for the products
- Equipment drawings and diagrams
- Performance and characteristics curve of the items, including

- (1) Diesel Engine Generator Set
- (2) Cables and bus ducts.

**C.13**

**MANUFACTURER'S INSTRUCTION**

The contractor must supply the manufacturer's guidelines for the installation of the high voltage cable including instructions for tapping and jointing as well as for the installation of HV termination kits.

**C.14**

**FIELD TEST REPORT**

At **least seven (7) days** prior to carrying out any testing or commissioning work for the contractor shall submit a complete set of typical test record, type of test to be conducted, time table for the testing and equipment to be tested/commissioned for review by the project in-charge or engineer.

The contractor must provide calibration procedures for all test instrument proposed to be used in testing.

**C.15**

**SPARE PARTS**

Upon the approval of materials and equipment, the contractor must present a list of recommended spare parts for a three-year usage of each major piece of equipment supplied by CAAP. The list includes the current unit price and details of the supply source.

**C.16**

**OPERATION AND MAINTENANCE MANUAL**

**The contractor is obligated to furnish the necessary Operation and Maintenance Manuals covering all systems and equipment as outlined in the scope of work.**

- The contractor must provide three (3) bound copies of the Manual, either in binders or equivalent. The cover shall display the following information; “OPERATION AND MAINTENANCE MANUAL”, the name of the system or equipment, the building name, the contractor’s name, and contact number.
- A table of contents and relevant tabs should be included to conform to the organization of the manual, and the manual should include the following information;
  - Internal and interconnecting wiring and control diagrams with details explaining the operation and control of the system or equipment
  - A control sequence for start-up, operation, and shutdown
  - A description of the function of each key piece of equipment
  - Installation and Maintenance Instructions
  - Safety precautions
  - Diagrams and illustrations
  - Testing methods.
  - Performance Data
  - Part list

**C.17**

**MATERIALS AND EQUIPMENT REQUIREMENTS**

- All materials and equipment to be supplied shall be in accordance with the requirements in the Specifications.
- The contractor shall be responsible for ordering the correct and sufficient quantities of cables and equipment.
- All materials and equipment to be provided shall be brand new and in accordance with CAAP Specifications and latest Edition of Philippine Electrical Code (PEC), Part 1, American Society for Testing and Materials (ASTM), National Electrical Manufacturers Association Standard (NEMA), Underwriters Laboratories (UL) Philippine Standards (PS) or any approved equivalent standards.
- The manufacturer of the materials and equipment shall be open to inspection by the CAAP or his representative in the course of manufacture of the materials or equipment or after they have been completed.
- Any materials or equipment found on such inspection not meeting the requirements of relevant standards, or of these specifications shall be rejected by CAAP.



**C.18****LABELS**

- All Circuit Breaker and other apparatus and controls shall be labelled in accordance with the requirements of this specifications.
- All label shall be Polycarbonate plastic or approved equal, engrave black lettering on white.
- Major equipment items shall be fitted with a main label mounted in a prominent position.
- Labels shall be secured with brass screws or steel screws which have been rust proofed in an approved manner.
- Labels shall designate circuit number and equipment function.
- Appropriately worded and sized warning labels engraved white on red shall be fastened to all covers or panels giving access to live equipment. Panels giving access to equipment at voltages of 500V and above shall additionally warn “DANGER – HIGH VOLTAGE”.
- Terminal strips shall be labelled to identify the circuit number, phase connection, terminal number and function – e.g. control, indication, protection, etc.

**C.19****CODES, INSPECTION, PERMITS, AND FEES**

- The work under this Contract shall be Purchase/Installation of 1.5 MVA Genset-Puerto Princesa International Airport in accordance with the requirements of the latest edition of Philippine Electrical Code, Part 1 and the Palawan Electric Cooperative (PALECO). Nothing contained in the specifications or shown on the drawings shall be construed in conflict with the National and Local Ordinances or Laws, governing the installation of electrical work and all such laws and ordinances are hereby made part of these Specifications.
- All permits and electrical fees required for this work for this contract, shall be obtained by and at the expense of the Contractor. The contractor shall furnish CAAP final certificate of inspection and approval from the proper government authorities after the completion of the work. The contractor shall prepare all “AS BUILT” drawings and all other paper works required by CAAP.
- The contractor shall contact Palawan Electric Cooperative (PALECO) and discuss the connection method, schedule and fees, necessary materials specified in the Specification shall be furnished to them. Connection fee shall be paid in accordance with pay item in the Bill of Quantities.

**C.20****GUARANTEE**

The contractor is responsible for ensuring that the electrical systems are free from any unintended grounding, poor workmanship, and defective materials, and this guarantee shall remain valid for a period of two years from the issuance of the Certificate of Completion. Should any defects arise within this timeframe, the contractor must rectify them at their own cost and without receiving further compensation

**C.21****ELECTRICAL EQUIPMENT AND MATERIALS**

Unless indicated or specified otherwise, install materials and equipment in accordance with the standards, codes, and regulation listed in the specification. Install all equipment in strict conformance with manufacturer’s instruction and recommendation

C.22

### **INSTALLATION**

Installation work shall conform to the requirement of Philippine Electrical Code (PEC) and National Fire Protection Association (NFPA) 70, Standard for Electrical Safety in workplace. Unloading, moving, and installation of equipment shall be under the direct supervision of a competent and experienced installation engineer.

Throughout the course of the construction project, the contractor is required to maintain a meticulous record of any variations from the drawings in regards to the actual installation. The contractor must document all changes and updates made to the original design as incorporated into the final construction. These records must be submitted to the CAAP for evaluation and endorsement. Once approved, the contractor must provide the CAAP with a comprehensive set of As-Built drawings, both in electronic format and hard copy

C.23

### **COORDINATION**

The contractor is obliged to collaborate fully and work in conjunction with other contractors in instances where their work is interrelated with other sections of the building.

C.24

### **ORIGINAL EQUIPMENT MANUFACTURER (OEM) DISTRIBUTORSHIP CERTIFICATE**

The procuring entity seek to ensure that the contractor has legal authorization or exclusive rights to distribute and sell the main product, thus CAAP requires the contractor to provide an Exclusive or Authorized OEM Distributorship Certificate duly notarized by the Philippine Consulate in the country of origin of the main product to be shipped.

C.25

### **FACTORY TEST**

**To ensure that a product meets the required quality and performance standards before it is shipped to the installation site, a factory test is necessary to measure the generator's performance. The following items shall be part of the project;**

- Contractor must provide details of testing location, schedule of activities, and activities to witness the Factory Test.
- Factory test must be conducted at the manufacturing site in four (4) calendar days prior to shipment/delivery to the installation site.
- Factory test must be witnessed by at least three (3) CAAP technical personnel or representatives of the procuring entity.
- Expenses related to factory acceptance test including travel processing (visa, allowances, fares, meals, accommodations, and accident insurance) is covered by the contractor. The allowances provided shall be in accordance with UNDP daily subsistence allowance (DSA) rate.
- The contractor shall be in charge in facilitating and coordinating with its distributor (OEM) in arranging the above matter.
- The following factory test shall be conducted in accordance with the industry standards
  - A. Generator with Exciter and All Panels
    - Verification of construction test
    - Mechanical Operation test
    - Electrical Operation test
    - Fifteen (15) seconds of 150% over current test (type test report may be acceptable)
    - Two (2) minutes of 120% over speed test (type test report may be acceptable)
    - Steady state voltage regulation test (type test report may be acceptable)

- Temperature voltage dip test (type test report may be acceptable)
- Temperature rise test (type test report may be acceptable)
- Noise tests (type test report may be acceptable)
- Vibration test
- Protection device test
- Deviation factor of wave form (type test report may be acceptable)
- Excitation equipment tests
- Measurement for calculation characteristics
- Insulation resistance test
- Power frequency withstand voltage test
- B. Diesel Engine with all accessories
  - Verification of construction test
  - Mechanical operation test
  - Electrical Operation test
  - Starting Characteristics tests
  - Ten (10) minutes of no-load operations test
  - Load Operation tests (type test report may be acceptable)
    - Thirty (30) minutes of 25% load test
    - Thirty (30) minutes of 50% load test
    - Thirty (30) minutes of 75% load test
    - Two (2) hours of full load test
    - Thirty (30) minutes of 125% load test
  - One (1) minute of 110% speed test
  - Governor performance test (type test report may be acceptable)
  - Temperature rise tests (type test report may be acceptable)
  - Noise test (type test report may be acceptable)
  - Vibration test
  - Protection device tests
  - Auxiliary equipment tests

## C.26

### ELECTRICAL TEST

**The Contractor shall conduct all preliminary field tests and trial operations (except for the final field inspection), which will be witnessed by CAAP. Ensure that all necessary labor, equipment, and materials are provided for the tests. CAAP's engineers / representative/s must be informed in advance of the dates and times for any tests, trial operations, or inspections. If any deficiencies are found, the contractor is responsible for fixing them and retesting the affected work at their own cost. The testing procedure must comply with established standard practices.**

- Examine all devices and equipment for any signs of damage or misalignment caused during shipping or installation.
- Ensure that the bolted bus joints are tightened according to the manufacturer's specifications by using a calibrated torque wrench.
- Conduct mechanical operator and contact alignment tests on breakers and operating mechanisms as per the manufacturer's guidelines.

- Determine the resistance of circuit breaker contacts and carry out tests on the trip and closing coils to verify the minimum pick-up voltage.
- Verify the electrical continuity of the current, potential, and control circuits in line with the wiring diagrams.
- Conduct a 500 VDC insulation resistance test on the field-installed control wiring and cables, as well as the factory-installed control wiring, ensuring that the minimum insulation resistance is 1,000,000 ohms.
- Verify type, range, and connections of instrument transformer. Confirm correct polarity of current transformer electrically.
- Remove short-circuit links from current transformer after checking that secondary circuit are complete
- Remove any wedges, ties, or blocks put in place by the manufacturer to protect the equipment during transportation.
- Inspect low-voltage circuit breakers following the manufacturer's instructions.
- Confirm the functionality of power relays and perform the necessary tests and calibrations.
- Verify maximum resistance to ground of grounding systems.
- Perform phase rotation checks on three phase (3Ø) wiring (disconnect all devices which could be damaged by the application of voltage or reversed phase sequence)
- Conduct pressure test on high voltage cables and equipment.
- Conduct functional/operational tests on all equipment.
- Conduct a load test for the 1.5 MVA Diesel Engine Generator Set (Genset)

The tests shall be conducted as the work progresses and once each electrical system has been fully installed.

All tests must be performed in the presence of a CAAP's representative/engineer and scheduled in advance through proper notifications

## C.27

### AT SITE PERFORMANCE TEST

After installation and prior to the energization of the diesel engine generator set, the contractor shall perform another test to be witnessed by the procuring entity's technical representative and/or engineer. The following **assembling performance test** shall be taken are as follows;

- Verification of construction tests
- Mechanical Operation tests
- Electrical Operation tests
- Ten (10) minutes of 110% overspeed test
- Noise and vibration tests
- Insulation resistance measuring

## C.28

### COMMISSIONING TEST

- Activate all installed equipment and make any necessary adjustments to ensure proper operation as directed by the equipment manufacturer.
- Conduct demonstration tests, including operating the systems under various conditions, to demonstrate that they function as intended under the terms of the contract.

- The demonstration/commissioning test must be witnessed by technical representatives from CAAP Central Office and from Puerto Princesa Air Navigation Facility.
- Commissioning test shall be carried out for (a) Electrical Equipment, individually and separately installed (b) Standby Generator (c) The entire power system under this specification (d) Bus duct electrical system.

**C.29**

**CLEANING**

The contractor must clear away all dirt, debris, waste, and rubbish generated during the construction process. After the project has been completed and accepted, the contractor must also remove all tools, temporary power installations, facilities, scaffolding, and waste materials

**C.30**

**AVAILABILITY OF SPARE PARTS AND TRAINING**

**The procuring entity requires the contractor to meet the following requirement to ensure continuous service operation of the procured infrastructure/products/services.**

- Spare parts must be available for a minimum of **ten (10) years**
- Contractor must present/submit a **ten (10) year** Certificate of Spare Parts Availability from its distributor or OEM.
- A list of spare parts specified in the operation manual or on a separate manual containing its unit cost must be provided to the procuring entity.
- On-site local training must be provided by the contractor to the procuring entity's maintenance personnel.
- The contractor shall conduct a 3-day (total of 24 hours) Generator System operation and maintenance training session on site for the technical personnel who will be in-charge in the operation and maintenance of the new system.
- Trainees who completed the training session shall receive a Certificate of Completion from the contractor's distributor or OEM provider.
- Three (3) sets of Operation and Maintenance Manual bound on a hardback binder shall be provided to the end-user

**D. TECHNICAL SPECIFICATIONS**

<b>D.1</b>	<p><b>GENERAL</b></p> <p><b>The new generator set to be supplied is intended to serve as a back-up generator to the two existing generators, when one of two (2) generators failed to operate during commercial power outage.</b></p> <p><b>The general works involve are supply/delivery/installation of the following items;</b></p> <ul style="list-style-type: none"> <li>▪ 1.5 MVA Diesel Engine Generator</li> <li>▪ Generator system and associated (a) exhaust piping system (b) Fuel distribution systems (c) water cooled heat exchangers (d) battery start-up systems</li> <li>▪ Total noise and vibration control systems</li> <li>▪ Automatic/manual starting system</li> <li>▪ Power cabling, control, instrumentation, and grounding cables &amp; rods.</li> <li>▪ Accessories and related works required to complete the work to meet the specifications.</li> </ul>
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<b>D.2</b>	<b>DIESEL GENERATOR</b> <b>The diesel engine generator set to be supplied shall be;</b> <ul style="list-style-type: none"> <li>▪ Silent type with complete with accessories</li> <li>▪ Direct-coupled to alternator, brushless excitation system</li> <li>▪ Self-mounted radiator 50°C, 120Pa</li> <li>▪ With flexible exhaust connector</li> <li>▪ 10A battery charger with battery and cables</li> <li>▪ With Sound shield enclosure</li> <li>▪ Noise level of 85 dBA in 5 meters</li> <li>▪ Residential type exhaust silencer</li> <li>▪ Self-mounted electronic control panel</li> </ul>
<b>D.3</b>	<b>ENGINE DATA</b> <ul style="list-style-type: none"> <li>▪ Air Charge Cooling</li> <li>▪ Exhaust Optimized (Environmental protection 40 CFR89/Tier 2)</li> <li>▪ Operating Method: Four-Stroke Diesel</li> <li>▪ Combustion System: Direct Injection</li> <li>▪ Charging Method: Exhaust turbo charger and air charge cooling</li> <li>▪ Total displacement: 35 liters</li> <li>▪ No. of cylinder: 18</li> <li>▪ Cylinder configuration: V-90</li> <li>▪ Compression ratio: 16:1</li> <li>▪ Direction of rotation: left (view form flywheel side)</li> <li>▪ Flywheel house flange: SAE 0</li> <li>▪ Flywheel interface: 18"</li> <li>▪ Starter ring-gear teeth no.: 118</li> <li>▪ Injection System: <b>Common Rail System with electronically</b> <ul style="list-style-type: none"> <li>○ <b>controlled high pressure injection through</b></li> <li>○ <b>single injection pump.</b></li> </ul> </li> <li>▪ Control/Monitoring: <b>Electronic Engine Management System</b></li> <li>▪ No. of turbo chargers: 2</li> <li>▪ No. of intercooler: 1</li> </ul>
<b>D.4</b>	<b>ALTERNATOR DATA</b> <ul style="list-style-type: none"> <li>▪ Standby Power: <b>1250KW</b></li> <li>▪ Voltage output: <b>400V/230VAC</b></li> <li>▪ Power Factor: <b>80%</b></li> <li>▪ Phase: <b>3 Phase, 4P</b></li> <li>▪ Frequency: <b>60Hz</b></li> <li>▪ RPM: <b>1800</b></li> <li>▪ Efficiency (%): <b>≥ 92.9%</b></li> <li>▪ Excitation Type: <b>Brushless</b></li> <li>▪ Insulation Level: <b>Class H</b></li> <li>▪ Protection Level: <b>IP23</b></li> </ul>
<b>D.5</b>	<b>MOUNTING BASE and ENCLOSURE</b> <ul style="list-style-type: none"> <li>▪ As specified in the Drawing</li> </ul>
<b>D.6</b>	<b>ENGINE FUEL SYSTEM</b> <ul style="list-style-type: none"> <li>▪ The engine shall be provided with all necessary equipment, including fuel piping, fittings, valves, filters, strainers and appurtenances. The engine shall be high-speed water-cooled, and shall operate satisfactorily on a commercial grade diesel fuel oil.</li> </ul>

<b>D.7</b>	<p><b>FUEL PUMP and LEVEL CONTROL</b></p> <ul style="list-style-type: none"> <li>▪ Positive Displacement Gear pump, Size: 1”x 1” Suction and Discharge, rated to deliver 0.25-0.53 LPS (15-321LPM) against 22.47 PSI, Total Dynamic Head at 32 SSU viscosity, the pump is directly coupled to Standard AC Induction Motor, 1/2HP, 3Ø, 230VAC, 1750 RPM, 60Hz.</li> </ul>
<b>D.8</b>	<p><b>ELECTRONIC GENERATOR CONTROL PANEL</b>  <b>The control panel for the electronic generator should have both user-friendly programming options and with advanced monitoring engine and generator capabilities.</b></p> <p><b>D.8.1 Control Panel Main Features</b></p> <ul style="list-style-type: none"> <li>▪ Programming via the front panel or via computer</li> <li>▪ Digital Inputs for signals that provide a contact closure (oil pressure, coolant temp. etc)</li> <li>▪ Fuel/Ignition Output</li> <li>▪ Starter output</li> <li>▪ Three (3) configurable analog inputs (e.g., oil pressure, coolant temperature.)</li> <li>▪ Generator Voltage input, 3Ø</li> <li>▪ Generator Current input, 3Ø</li> </ul> <p><b>B8.2 Control Panel Display</b></p> <ul style="list-style-type: none"> <li>▪ Generator Voltage</li> <li>▪ Generator Current</li> <li>▪ Generator Frequency</li> <li>▪ Generator Power Output (Kw, var, Kwh)</li> <li>▪ Engine oil pressure</li> <li>▪ Engine coolant temperature</li> <li>▪ Engine Hours</li> <li>▪ Engine Status and Alarm</li> <li>▪ Other necessary display</li> </ul>

D.9	<p><b>BUS DUCT SPECIFICATIONS</b></p> <p><b>Bus duct design/fabrication/materials shall satisfy the following recommended standard requirements specified herein;</b></p> <ul style="list-style-type: none"> <li>▪ Type <b>Sandwich type with integral bus</b></li> <li>▪ Electrical system compatibility <b>3<math>\phi</math>, 3W+G</b></li> <li>▪ Current rating, IA <b>3000 A</b></li> <li>▪ Rated operating voltage <b>415-480V</b></li> <li>▪ Rated insulation voltage <b>690V</b></li> <li>▪ Rated impulse w/stand voltage <b>6kV</b></li> <li>▪ Frequency <b>50/60Hz</b></li> <li>▪ <b>Rated short-time withstand current</b></li> <li>▪ Degree of Protection <b>IP56</b></li> <li>▪ IEC Standard <b>IEC 61439-1 &amp; IEC 61439-6</b></li> <li>▪ Enclosure thickness/material <b>1.5mm galvanized steel sheet</b></li> <li>▪ Paint finish <b>Powder coated finish</b></li> <li>▪ Paint texture <b>Smooth</b></li> <li>▪ Conductor material <b>tin-plated copper 99.9% ETP Grade</b></li> <li>▪ Plug-in units <b>16 A to 800 A</b></li> <li>▪ Plug-in outlets per length (risers) <b>Maximum of 4 outlets</b></li> <li>▪ Insulation class <b>Class B (130°)</b></li> <li>▪ Insulation material <b>Polyester film</b></li> <li>▪ Fire resistance rating <b>120 minutes</b></li> </ul>
D.10	<p><b>STANDARD</b></p> <p><b>The materials, equipment, and method of installation comprising the complete works shall be in accordance with the latest applicable codes, standard, and guidelines</b></p> <ul style="list-style-type: none"> <li>▪ PEC – Philippine Electrical Code</li> <li>▪ IEEE – Institute of Electrical and Electronics Engineers</li> <li>▪ UL – Underwriters’ Laboratories</li> <li>▪ ANSI – American National Standards Institute</li> <li>▪ NEMA – National Electrical Manufacturers Association</li> <li>▪ ICAO – International Civil Aviation Organization</li> <li>▪ IEC – International Electrotechnical Commission</li> <li>▪ NFPA – National Fire Protection Association</li> <li>▪ DENR Standard – Department of Environment and Natural Resources</li> </ul>
D.11	<p><b>GROUNDING SYSTEMS</b></p> <p><b>The grounding works shall be in accordance with the following requirements;</b></p> <ul style="list-style-type: none"> <li>▪ Grounding works shall comply to applicable standards, Philippine Electrical Code (PEC)-Part 1</li> <li>▪ Grounding conductor size shall be in accordance with the applicable standard code.</li> <li>▪ Connection/bonding between ground rod to cable and/or cable to cable shall be exothermic.</li> <li>▪ Ground rod shall be copper clad steel, UL listed and 15 mm in diameter and 3 meters in length.</li> </ul>



## ***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***

## **DETAIL OF BILL OF QUANTITIES**

**PROJECT:** Purchase/Installation of 1.5 MVA Genset - Puerto Princesa International Airport

**LOCATION:** Puerto Princesa International Airport, Palawan Philippines

<i>QTY</i>	<i>UNIT</i>	<i>DESCRIPTION</i>		<i>UNIT COST</i>	<i>AMOUNT</i>
		<b>I.</b>	<b>GENERAL REQUIREMENTS</b>		
<b>1</b>	<b>lot</b>	<b>I.1</b>	<b>Mobilization &amp; Demobilization</b>		
		<b>II.</b>	<b>SUPPLY, DELIVERY, INSTALLATION, TESTING AND COMMISSIONING OF ONE (1) UNIT BRAND NEW 1.5MVA DIESEL GENERATOR SET (DEGS) 20FT SOUNDPROOF CONTAINERIZED OR SOUND ATTENUATED ENCLOSURE AND FUEL LINE SYSTEM AT PUERTO PRINCESA AIRPORT, PALAWAN</b>		
<b>1</b>	<b>set</b>	<b>II.1</b>	<b>MATERIALS</b>		
			<p><i>One (1) Brand New Diesel Electric Generator Set driven by radiator cooled Industrial type Heavy duty, vee type, turbo charged standby duty. The engine is directly coupled by means of flexible coupling to an AC Brushless Alternator with Class "H" insulation self-regulating with fan cooling, resist humid grease, AC excitation, rotating rectification tube, stator grease insulation covered, rotator and excitation high polymer, resist the corruption of oil and acid, rotator balance, high quality lubrication sealed long-time bearing and rotator silicon steel close tight. Generator set is complete with "all weather enclosure / container", standard accessories such as residential silencer with flexible exhaust bellows, 50°C industrial radiator, batteries with rack and cables, engine-generator auto start controller, 2500AT Generator Main Breaker</i></p> <p><b>Engine Data:</b></p> <p><i>Air charge air cooling Exhaust Optimized (environmental protection agency 40 CFR89/Tier 2)</i></p> <p><i>Operating method: Four Stroke Diesel</i></p> <p><i>Combustion System: Direct Injection</i></p> <p><i>Charging method: Exhaust turbo charger and Air charge cooling</i></p> <p><i>Bore/Stroke: 130/150mm</i></p> <p><i>Displacement, total: 35 liters</i></p> <p><i>Number of Cylinders: 18</i></p> <p><i>Cylinder configuration: V-90</i></p> <p><i>Compression ratio: 16:1</i></p> <p><i>Direction of rotation: left (view from flywheel side)</i></p> <p><i>Flywheel house flange: SAE 0</i></p> <p><i>Flywheel interface: 18"</i></p> <p><i>Starter ring-gear teeth no.: 118</i></p> <p><i>Injection system: Common Rail System with electronically controlled high-pressure injection through single injection pumps.</i></p> <p><i>Control/Monitoring: Electronic engine management system</i></p>		

			<p>No. of turbo chargers: 2</p> <p>No. of intercooler: 1</p> <p>Alternator Data:</p> <p>Standby power: 1250KW</p> <p>Voltage Output: 400V/230V AC</p> <p>Power Factor: 80%</p> <p>Phase: 3Ø, 4P</p> <p>Frequency: 60Hz</p> <p>RPM: 1800</p> <p>Efficiency (%): 92.9</p> <p>Excitation type: Brushless</p> <p>Insulation Level: Class H</p> <p>Protection Level: IP23</p> <p>Shipping and unloading of Diesel Engine Generator Set (Genset) to Puerto Princesa, Palawan Philippines.</p>		
1	lot	II.1.1	<p>The generator unit will be tested at the Original Equipment Manufacturer (OEM) /Factory Acceptance Test (FAT) prior to its delivery to the site. Provision for Site Acceptance Test (SAT), Operation/Maintenance training for technical personnel, and three (3) sets of OEM Manual</p>		
1	lot	II.2	<p><b>FUEL LINE SYSTEM</b></p> <p>Design, Supply and Installation of Fuel Supply/Return Line connection from the existing fuel day tank (FDT) of Powerplant to the New Generator Set (located outside) includes wall concrete penetration, B.I. pipes layout (painted), fittings, control valves, etc.</p>		
1000	liters	II.3	<b>DIESEL FUEL (FOR TESTING)</b>		
1	lot	II.4	<p><b>EQUIPMENT</b></p> <p>Telescopic Crane (includes mobilization/demobilization of equipment), Welding Machine, and Small Hand tools</p>		
1	lot	II.5	<p><b>LABOR</b></p> <p>Manpower, Crane Operator, Crane Rigger, Generator Technician, and Plumber</p>		
				Materials	
				Equipment	
				Skilled/Labor	
			<b>Item II Sub-Total</b>		
		III.	<p><b>DESIGN/FABRICATION/DELIVERY AND/ INSTALLATION OF FOUR (4) 3000A, 400/230V, 3Ø, SANDWICH TYPE WITH INTEGRAL GROUND BUS TIN-PLATED 99.9% COPPER BUSDUCT FROM THE NEW 1.5MVA GENERATOR TO THE EXISTING GENERATOR CONTROL PANEL LOCATED IN POWERPLANT BUILDING.</b></p>		
1	lot	III.1	<p><b>MATERIALS</b></p> <p>Design/Fabrication/Delivery and Installation of 4x3000A, 400/230V, 3Ø Sandwich type with</p>		

			integral bus tin-plated copper 99.9% ETP Grade, IP56 Protection, Class B insulation and polyester film insulation material in 1.5mm galvanized steel sheet, powder coated finish (gray), including equipment grounding (175mm <sup>2</sup> THW ground wire, terminal lugs, etc.) and bonding system, concrete pedestal and supports.		
<b>I</b>	<i>lot</i>	<b>III.2</b>	<b>LABOR</b>		
			Manpower and skilled Laborer		
				<b>Materials</b>	
				<b>Skilled/Labor</b>	
			<b>Item III Sub-Total</b>		
		<b>IV.</b>	<b>SUPPLY, DELIVERY, INSTALLATION OF NEW DRAW-OUT TYPE AIR CIRCUIT BREAKER, GENERATOR ALL ACB'S INTERLOCKING, POWER CABLE AND GROUNDING.</b>		
<b>I</b>	<i>set</i>	<b>IV.1</b>	<b>MATERIALS</b> Air Circuit Breaker (ACB) 4000 AT/AF, 600V, 4P, 100 KAIC draw-out type (Preferable same brand that of existing at Puerto Princesa Powerplant.		
<b>I</b>	<i>lot</i>		Interlock Devices, Materials, etc.		
<b>I</b>	<i>lot</i>		Miscellaneous (ALPT Site training for ACB Operation and copy of ACB Procedure manual)		
<b>I</b>	<i>lot</i>	<b>IV.2</b>	<b>EQUIPMENT</b> Equipment, Hydraulic Crimping Tool, and Small Hand tools		
<b>I</b>	<i>lot</i>	<b>IV.3</b>	<b>LABOR</b> Manpower, Foreman (Electrical Engineer), Skilled Electrician, and laborers.  <b>Sub-total (Materials, Equipment , and Labor)</b>	<b>Materials</b> <b>Equipment</b> <b>Skilled/Labor</b>	
			<b>Item IV Sub-Total</b>		
		<b>V.</b>	<b>SUPPLY, DELIVERY AND INSTALLATION OF CONCRETE GENERATOR PAD AND GROUNDING</b>		
	<i>cu<sup>3</sup></i>	<b>V.1</b>	<b>MATERIALS</b> Concrete, 3000 psi		
	<i>kg.</i>		Reinforcing Steel Bar		
	<i>sqm</i>		Formworks		
	<i>kls</i>		GI Wire		
	<i>kls</i>		Common Wire Nails		
	<i>pc</i>		Grounding rod copper weld, 20mmØ x 3m, Clamp. Etc.		
	<i>m</i>		60 mm <sup>2</sup> bare copper grounding wire		
	<i>pc</i>		Terminal lugs, single hole, long barrel for size 60mm <sup>2</sup>		

1	lot		Miscellaneous		
1	lot	V.2	<b>LABOR</b> Surface preparation: Clearing, grubbing and excavation, Supply, delivery and Installation of Concrete Generator Pad and Grounding		
				Materials	
				Skilled/Labor	
				Item V Sub-Total	
1	lot	VI. VI.1	<b>INTEGRATION TO THE EXISTING SYSTEM</b> Supply of labor, tools, supervision, equipment and materials needed for the complete integration of the proposed 1.5MVA Soundproof Containerized/Sound Attenuated Type Generator to the existing Generator Control Panel/switch board and additional Tie ACB to the existing Tie ACB in Control Panel/Switchboard and to interface monitoring points for BMS/PMS.	<b>MATERIALS</b> <b>EQUIPMENT</b> <b>LABOR</b>	
1	lot	VI.2	Design, delivery, installation, including supply of labor, Engineer/Programmer of SCADA /PLC, tools, equipment, devices/modules, cables and materials needed for the Integration of New Generator Set and ACB to the Existing Building Management System (BMS) / Power Monitoring System (PMS) with same points/parameters as seen in the Graphical User Interface Monitor.	<b>MATERIALS</b> <b>EQUIPMENT</b> <b>LABOR</b>	
1	lot	VI.3	Supply of labor, tools and supervision for the Testing and Commissioning of the whole system.	<b>MATERIALS</b> <b>EQUIPMENT</b> <b>LABOR</b>  Materials Equipment Skilled/Labor	
			Item VI Sub-Total		
		VII. VII.1	<b>SUPPLY AND INSTALLATION OF GENERATOR SHELTER AND GROUNDING</b> <b>MATERIALS</b>		
	l.m		GA #26 Rib Type Metal Roofing		
	lot		Ridge Capping		
	pcs.		Cyclone Wire 4'x14"x2" opening		
	pcs.		4"Φ G.I. Pipe S40		
	pcs.		2"Φ G.I. Pipe S40		
	pcs.		10mmΦ plain round bar		

	lot		Tex Screw		
	kg.		Welding Rod		
	gal.		Primer Paint		
	gal.		QDE, Gray		
	pcs.		Hacksaw Blade		
	cu.m		gravel		
	pcs.		2"x4"x2' C Purlins		
	lot		Truss		
	lot		Lighting System (electrical works) and Aluminum Foil Roof Insulation		
	lot		250mmX250mm Concrete Pedestal		
	pc		Grounding Rod, copper clad, 20mmΦ x 3m, clamp, and 60mm <sup>2</sup> bare copper wire		
1	lot	VII.2	<b>EQUIPMENT</b> 100A Welding Machine Chain Block, and Small Hand tools		
1	lot	VII.3	<b>LABOR</b> Construction of Shelter and grounding system		
				<b>Materials</b>	
				<b>Equipment</b>	
				<b>Skilled/Labor</b>	
				<b>Item VII Sub-total</b>	
1	lot	VIII. VIII. 1	<b>MISCELLANEOUS</b>  <b>GENERAL TOOLS</b>		
			Supply and delivery of required tools for the Generator but not limited to: 1. Socket wrench set 2. 12-point combination wrench 10" long 3. Combination plier 10" long 4. Adjustable wrench 10" long 5. Allen wrench, 1 set 6. Torque wrench, 1/2 drive 400psi 7. Screw drivers (plus and minus) 8. Hammer 9. Feeler gauge 10. Grease gun 11. Puller 12. Super wrench or equivalent 13. Special tools for overhauling and 14. re-assembly of turbocharger 15. Crimping tools 16. AC-DC Clamp Meter (0-1000V) 17. Long Nose Plier 6 1/2" long 18. Vise grip 19. Tongue and Grove pliers 20. Precision Screwdrivers 21. Ear Muff- 2 set 22. Heavy Duty tool box		

<i>1</i>	<i>lot</i>	<b>VIII. 2</b>	<b>ENVIRONMENTAL, MUNICIPAL PERMITS AND OTHER PERMITS DEEMED NECESSARY</b>		
<i>Total Materials</i>					
<i>Total Labor</i>					
<i>Total Equipment</i>					
<i>General Requirements (see item 1)</i>					
<b>(1) Total Direct Cost</b>					
<i>Overhead (8% of EDC)</i>					
<i>Contingencies (3%EDC)</i>					
<i>Miscellaneous (1%EDC)</i>					
<i>Contractor's Profit (8%)</i>					
<i>VAT/Contractor's Tax (5% of EDC, OCM and Profit)</i>					
<b>(2) Total Indirect Cost</b>					
<b>TOTAL PROJECT COST (1+2)</b>					



BILL OF QUANTITIES		
Item No.	Scope of Work	Total Cost
I.	General Requirements (Mobilization/ Demobilization)	
II.	Supply, delivery, installation, testing, and commissioning of one (1) unit brand new 1.5 MVA generator set 20 feet soundproof containerized / sound attenuated enclosure and fuel line system at Puerto Princesa Airport Palawan Philippines.	
III.	Design/Fabrication/Delivery and Installation of Four (4) x 3000 A, 400/230V, 3Φ, Sandwich type with integral ground bus tin-plated 99.9% copper bus duct from new 1.5MVA Generator to existing control panel inside the power plant building	
IV.	Supply, delivery, installation of new draw-out type air circuit breaker, generator all ACB interlocking, power cable and grounding.	
V.	Supply, delivery and installation of concrete generator pad and grounding	
VI.	Integration to the existing power supply system	
VII.	Supply and installation of generator's shelter and grounding	
VIII.	Miscellaneous	
Total Direct Cost		
Total Indirect Cost		
Total Project Cost		

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

# Checklist of Technical and Financial Documents

## I. TECHNICAL COMPONENT ENVELOPE

### *Class “A” Documents*

#### Legal Documents

- ☐ (a) Valid PhilGEPS Registration Certificate (Platinum Membership) (all pages);  
**or**

#### Technical Documents

- ☐ (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. ; **and**
- ☐ (c) Statement of the bidder’s Single Largest Completed Contract (SLCC) similar to the contract to be bid, except under conditions provided under the rules. ; **and**
- ☐ (d) Special PCAB License in case of Joint Ventures;  
**and** registration for the type and cost of the contract to be bid; **and**
- ☐ (e) Original copy of Bid Security. If in the form of a Surety Bond, submit also a certification issued by the Insurance Commission;  
**or**  
Original copy of Notarized Bid Securing Declaration **and**
- ☐ (f) Project Requirements, which shall include the following:
  - ☐ a. Organizational chart for the contract to be bid **and**
  - ☐ 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 ; **and**
  - ☐ 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**
- ☐ (g) 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; **and**  
  
This shall include all the following documents as **attachment to the Omnibus Sworn Statement**:
  - ☐ a. Certification, under oath, attesting that they have no pending case(s) against the Government, in addition to the eligibility requirements as prescribe under the 2016 Revise Implementing Rules and Regulation (R-IRR) of RA No. 9184; **and**
  - ☐ b. Legal Clearance to be issued by the CAAP Enforcement and Legal Service with respect to the non-pending cases of the prospective bidders against this Authority; **and**

- ☐ c. Bid Bulletins (if applicable); **and**
- ☐ (h) **Certificate of Site Inspection** duly signed by **the ANS Facility-in-Charge of Puerto Princesa International Airport** or his duly authorized representative; **and**

This shall include all of the following documents as attachment to the Certificate of Site Inspection:

- ☐ a. Copy of company ID of the person who conducted the site inspection; **and**
- ☐ b. Copy of the airport/facility visitor's logbook appearing the names and signatures of inspectors; and
- ☐ c. Picture of the proposed site including the personnel who conducted the site inspection together with the ANS Facility-in-Charge or his duly authorized representative: **and**
- ☐ (i) Bid bulletin (if any)

**Financial Documents**

- ☐ (j) The prospective bidder's computation of Net Financial Contracting Capacity (NFCC).

***Class "B" Documents***

- ☐ (k) 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.

**I. FINANCIAL COMPONENT ENVELOPE**

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

**Other documentary requirements under RA No. 9184**

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

***NOTE: Please refer to the Annexes provided, which include CAAP forms for items (n) and (o).***



**CERTIFICATE OF SITE INSPECTION**

This is to CERTIFY that **[Bidder's Name/Bidder's Representative], [Position] of [Company Name],**  
has conducted the required Site Inspection for the bidding of the project  
**Purchase/Installation of 1.5 MVA Genset at Puerto Princesa International Airport.**

Issued this **(dd/mm/yyyy)**

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**ANS Facility-in-Charge/  
Authorized Representative**

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(ATTACH COMPANY LETTERHEAD/LOGO)

**SUMMARY FOR UNIT PRICES OF MATERIALS**

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

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

DESCRIPTION	UNIT PRICE	UNIT

**SUBMITTED BY:**

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Position: \_\_\_\_\_

Name Company: \_\_\_\_\_

Date: \_\_\_\_\_

(ATTACH COMPANY LETTERHEAD/LOGO)

**SUMMARY FOR UNIT PRICES OF LABOR**

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

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

DESCRIPTION	UNIT PRICE	UNIT

**SUBMITTED BY:**

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Position: \_\_\_\_\_

Name Company: \_\_\_\_\_

Date: \_\_\_\_\_

(ATTACH COMPANY LETTERHEAD/LOGO)

**SUMMARY FOR UNIT PRICES OF EQUIPMENT**

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

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

DESCRIPTION	UNIT PRICE	UNIT

SUBMITTED BY:

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Position: \_\_\_\_\_

Name Company: \_\_\_\_\_

Date: \_\_\_\_\_



Annex – IV

{ATTACH COMPANY LETTERHEAD/LOGO}

Name of Project : \_\_\_\_\_

Location of Project : \_\_\_\_\_

CASH FLOW BY QUARTER AND PAYMENY SCHEDULE

PARTICULAR	% W	1ST QUARTER	2ND QUARTER	3RD QUARTER	4TH QUARTER
ACCOMPLISHMENT					
CASH FLOW					
CUMULATIVE ACCOMPLISHMENT					
CUMULATIVE CASH FLOW					

Submitted by:

Name of the Representative of the Bidder

Position

Name of the Company

Date



Republic of the Philippines  
Department of Transportation

**CIVIL AVIATION AUTHORITY OF THE PHILIPPINES**