

BIDDING DOCUMENTS

FOR

SUPPLY, DELIVERY, INSTALLATION & COMMISSIONING OF A7HPP TIE LINE PROTECTION WITH TRANSFER TRIP FUNCTION

PR No.:MG-A7M23-003

Procurement Services Section Logistics Division

Sixth Edition July 2020 Rev. 2

Table of Contents

	y of Acronyms, Terms, and Abbreviations	
Section	I, Invitation to Bid	.5
	II. Instructions to Bidders	
	Scope of Bid	
	Funding Information	
3.	Bidding Requirements	10
		10
	Eligible Bidders	11
6.	Origin of Goods	11
7	Subcontract	11
8,	Pre-Bid Conference	11
9.	Clarification and Amendment of Bidding Documents	11
10.	Documents comprising the Bid: Eligibility and Technical Components	
11.	Documents comprising the Bid: Financial Component	
12.	Bid Prices	
13.	Bid and Payment Currencies	
14.	Bid Security	
15.	Sealing and Marking of Bids .,	
16.	Deadline for Submission of Bids	14
17.	Opening and Preliminary Examination of Bids	14
18.	Domestic Preference	
19.	Detailed Evaluation and Comparison of Bids	14
20.	Post-Qualification ,	15
21.	Signing of the Contract	16
	III, Bid Data Sheet	
Section	IV. General Conditions of Contract	9
1.	Scope of Contract	20
2.	Advance Payment and Terms of Payment	20
3.	Performance Security	20
4.	Inspection and Tests	
5.	Warranty	21
б.	Liability of the Supplier	21
Section	v. Special Conditions of Contract	.22
Section	vI. Schedule of Requirements	.27
Section	VII. Technical Specifications	.28
Castles	1 VIII. Checklist of Technical and Financial Documents and Bidd	ina
Section	Forms	73
	POI 1110445554441144447744444444444444444444	

Glossary of Acronyms, Terms, and Abbreviations

ABC -Approved Budget for the Contract.

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 S[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 - Burcau of Internal Revenue.

BSP - BangkoSentralngPilipinas.

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])

CDA - Cooperative Development Authority.

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.

CIF – Cost Insurance and Freight.

CIP – Carriage and Insurance Paid.

CPI - Consumer Price Index.

DDP - Refers to the quoted price of the Goods, which means "delivered duty paid."

DTI - Department of Trade and Industry.

EXW - Ex works.

FCA - "Free Carrier" shipping point.

FOB - "Free on Board" shipping point.

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]).

Framework Agreement — Refers to a written agreement between a procuring entity and a supplier or service provider that identifies the terms and conditions, under which specific purchases, otherwise known as "Call-Offs," are made for the duration of the agreement. It is in the nature of an option contract between the procuring entity and the bidder(s) granting the procuring entity the option to either place an order for any of the goods or services identified in the Framework Agreement List or not buy at all, within a minimum period of one (1) year to a maximum period of three (3) years. (GPPB Resolution No. 27-2019)

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 JRR, Section 5[f])

GOP - Government of the Philippines.

GPPB - Government Procurement Policy Board,

INCOTERMS - International Commercial Terms.

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.

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.

Supplier – refers to a citizen, or any corporate body or commercial company duly organized and registered under the laws where it is established, habitually established in business and engaged in the manufacture or sale of the merchandise or performance of the general services covered by his bid. (Item 3.8 of GPPB Resolution No. 13-2019, dated 23 May 2019). Supplier as used in these Bidding Documents may likewise refer to a distributor, manufacturer, contractor, or consultant.

UN - United Nations.

BID DOCUMENTS

NAME OF PROJECT: SUPPLY, DELIVERY, INSTALLATION & COMMISSIONING OF A7HPP TIE LINE PROT. WITH TRANSFER TRIP FUNCTION

SECTION I - INVITATION TO BID

PR NO./REF. NO.: MG-A7M23-003

Section I Invitation to Bid

NAME OF PROJECT: SUPPLY, DELIVERY, INSTALLATION & COMMISSIONING OF A7HPP TIE, LINE PROT. WITH TRANSFER TRIP FUNCTION

SECTION (- INVITATION TO BID

PR NOJREF, NO.: MG-A7M23-003



NATIONAL POWER CORPORATION

MinGen

INVITATION TO BID FOR Supply, Delivery, Installation & Commissioning of A7HPP Tie Line Protection With Transfer Trip Function

- The NATIONAL POWER CORPORATION—MINDANAO GENERATION, through the CORPORATE BUDGET OF NPC intends to apply the sum of Ten million pesos (P10,000,000.00) being the ABC to payments under the contract for Supply, Delivery, Installation & Commissioning of A7HPP Tie Line Protection With Transfer Trip Function. Bids received in excess of the ABC shall be automatically rejected at bid opening.
- 2. The NATIONAL POWER CORPORATION—MINDANAO GENERATION now invites bids for the above Procurement Project. Delivery of the Goods is required Three Hundred Calendar Days (300) from the date Indicated in the Notice to Proceed. Bidders should have completed, within the last five (5) years from the date of submission and receipt of bids, 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 a non-discretionary "pass/fail" criterion as specified in the 2016 revised Implementing Rules and Regulations (IRR) of Republic Act (RA) No. 9184.
 - a. Bidding is open to all interested bidders, whether local or foreign, subject to the conditions for eligibility provided in the 2016 revised IRR of RA No. 9184.
- 4. Prospective Bidders may obtain further information from NATIONAL POWER CORPORATION—MINDANAO GENERATION and inspect the Bidding Documents at the address given below during 8:00 AM 5:00 PM, Monday to Friday.
- 5. A complete set of Bidding Documents may be acquired by interested Bidders on IdNovember-06December 2022 from the given address and website(s) belowand upon payment of the applicable fee for the Bidding Documents, pursuant to the latest Guidelines issued by the GPPB, in the amount of Ten Thousand Pesos (PHP10.000.00) only. The Procuring Entity shall allow the bidder to pay online and present its proof of payment for the fees in person, by facsimile, or through electronic means. For those prospective bidders who wish to pay online, below are the details of the account;

BID DOCUMENTS

~~

NAME OF PROJECT: SUPPLY, DELIVERY, INSTALLATION & COMMISSIONING OF A7HPP TIE LINE PROT. WITH TRANSFER

TRIP FUNCTION

SECTION I - INVITATION TO BID

PR NO/REF, NO.: MG-A7M23-003

LandbankAccount name

NPC GENCO 5 COLLECTIONS FUND

LandbankAccount number

0321-1689-14

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

- The NATIONAL POWER CORPORATION- MINDANAO GENERATION will hold a 6. Pre-Bid Conference on 22November 2022, 9:00AM at BAC-Bidding Room, MINGEN Headquarters, NPC, Maria Cristina, Iligan Cityand/or through video conferencing or webcasting viaZoom, which shall beopen to prospective bidders. Interested online attendees are required to pre-register one (1) day before the scheduled pre-bidding conference. For pre-registration, contact tel. no. (063)-223-4604 or email logistics_afd_mingen@napocor.gov.ph.
- Bids must be duly received by the BAC Secretariat through manual submission at the 7. office address indicated below, on or before <u>06December</u>, <u>9:30AM</u>. 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 14.
- 9. Bid opening shall be on 06 December 2022. 9:30AMat Bidding Room, Mindanao Generation Headquarters, Maria Cristina, Iligan City. Bids will be opened in the presence of the bidders' representatives who choose to attend the activity.
- THE NECESSARY FEATURES OF THE PROJECT TO BE PROCURED: 10.
 - Conduct Site Inspection. a)
 - Supply, Installation, Interfacing with CTs and PTs, Test and Commissioning b) of 4 units line protection relay.
 - Supply and Installation of 1500m of 24-core optical ground wire along the c) 138kV Agus 7 - Agus 6 SS transmission line.
- d) The NATIONAL POWER CORPORATION - MINDANAO GENERATION 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 Sections35.6 and 41 of the 2016 revised IRR of RA No. 9184, without thereby incurring any liability to the affected bidder or bidders.
- For further information, please refer to: e)

BAC Secretariat Bids and Contracts Services Division Logistics Department National Power Corporation BIR Road Corner Quezon Avenue

¹ 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.

SECTION I - INVITATION TO BID

PR NO/REF NO MG-A7M23-003

Dilliman, Quezon City, Philippines 1100

Tel. Fax: (02) 8924-5211 (02) 8921-3541 loc 5564

www.napocor.gov.ph

f) You may visit the following websites:

For downloadingof www.napocor.gov.ph.

BiddingDocuments:https://www.philgeps.gov.ph/

and

ATTY. ALEX E. MACABANGKIT

Vice Chairman

Bids and Awards Committee Mindanao Generation

National Power Corporation

Date of Publication: 14 November 2022

BID DOCUMENTS

NAME OF PROJECT: SUPPLY, DELIVERY, INSTALLATION & COMMISSIONING OF ATHPP TIE LINE PROT. WITH TRANSFER TRIP FUNCTION

SECTION II - INSTRUCTION TO BIDDERS

PR NOJREF, NO.: MG-A7M23-003

Section II Instructions to Bidders

No. 3 Post

SECTION II - INSTRUCTION TO BIDDERS

PR NO./REF, NO.: MG-A7M23-003

1. Scope of Bid

The Procuring Entity, NATIONAL POWER CORPORATION — MINDANAO GENERATION wishes to receive Bids for the Supply, Delivery, Installation & Commissioning of A7HPP Tie Line ProtectionWith Transfer Trip Function, with identification number PR No. MG-A7M23-003

The Procurement Project (referred to herein as "Project") is composed of One (1)Lot, the details of which are described in Section VII (Technical Specifications).

2. Funding Information

- 2.1. The GOP through the source of funding as indicated below for CY 2023 in the amount of ten million pesos (P10,000,000.00) only.
- 2.2. The source of funding is:

GOCC and GFIs, the 2023 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 Manuals 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 IB 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 verified and accepted the general requirements of this Project, including 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, and Coercive Practices

The Procuring Entity, as well as the Bidders and Suppliers, 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 "l" of the 2016 revised IRR of RA No. 9184 or other integrity violations in competing for the Project.

PR NO./REF, NO.: MG-A7M23-003

5. Eligible Bidders

- 5.1. Only Bids of Bidders found to be legally, technically, and financially capable will be evaluated.
- 5.2. Foreign ownership limited to those allowed under the rules may participate in this Project.
- 5.3. Pursuant to Section 23.4.1.3 of the 2016 revised IRR of RA No.9184, the Bidder shall have an SLCC that is at least one (1) contract similar to the Project the value of which, adjusted to current prices using the PSA's CPI, must be at least equivalent to:

For the procurement of Non-expendable Supplies and Services: The Bidder must have completed a single contract that is similar to this Project, equivalent to at least fifty percent (50%) of the ABC.

5.4. The Bidders shall comply with the eligibility criteria under Section 23.4.1 of the 2016 IRR of RA No. 9184.

6. Origin of 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, subject to Domestic Preference requirements under ITB Clause 18.

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 twenty percent (20%) of the Project.

The Procuring Entity has prescribed that:

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 addressand/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

PR NOJREF, NO.: MG-A7M23-003

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 VIII (Checklist of Technical and Financial Documents).
- 10.2. The Bidder's SLCC as indicated in ITB Clause 5.3 should have been completed within the last five (5) years prior to the deadline for the submission and receipt of bids.
- 10.3. 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. Similar to the required authentication above, 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.

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 VIII (Checklist of Technical and Financial Documents).
- 11.2. If the Bidder claims preference as a Domestic Bidder or Domestic Entity, a certification issued by DTI shall be provided by the Bidder in accordance with Section 43.1.3 of the 2016 revised IRR of RA No. 9184.
- 11.3. Any bid exceeding the ABC indicated in paragraph 1 of the IB shall not be accepted.
- 11.4. 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. Bid Prices

- 12.1. Prices indicated on the Price Schedule shall be entered separately in the following manner:
 - a. For Goods offered from within the Procuring Entity's country:

PR NO./REF, NO.: MG-A7M23-003

- The price of the Goods quoted EXW (ex-works, ex-factory, exwarehouse, ex-showroom, or off-the-shelf, as applicable);
- The cost of all customs duties and sales and other taxes already paid or payable;
- ifi. The cost of transportation, insurance, and other costs incidental to delivery of the Goods to their final destination; and
- iv. The price of other (incidental) services, if any, listed in e.

b. For Goods offered from abroad:

- i. Unless otherwise stated in the BDS, the price of the Goods shall be quoted delivered duty paid (DDP) with the place of destination in the Philippines as specified in the BDS. In quoting the price, the Bidder shall be free to use transportation through carriers registered in any eligible country. Similarly, the Bidder may obtain insurance services from any eligible source country.
- ii. The price of other (incidental) services, if any, as listed in Section VII (Technical Specifications).

13. Bid and Payment Currencies

- 13.1. For Goods that the Bidder will supply from outside the Philippines, the 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.
- 13.2. Payment of the contract price shall be made in:
 - a. Philippine Pesos.

14. Bid Security

- 14.1. The Bidder shall submit a Bid Securing Declaration² 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.
- 14.2. The Bid and bid security shall be valid until <u>One Hundred Twenty (120) Days</u> from the <u>Date of Scheduled Bid Opening</u>. Any Bid not accompanied by an

² In the case of Francework Agreement, the undertaking shall refer to entering into contract with the Procuring Entity and furnishing of the performance security or the performance securing declaration within ten (10) calendar days from receipt of Notice to Execute Francework Agreement.

SECTION II -- INSTRUCTION TO BIDDERS PR NO./REF. NO.: MG-A7M23-003 acceptable bid security shall be rejected by the Procuring Entity as non-responsive.

15. Sealing and Marking of Bids

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

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

If the Procuring Entity allows the submission of bids through online submission 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.

16. Deadline for Submission of Bids

16.1. 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.

17. Opening and Preliminary Examination of Bids

17.1. 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.

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

18. Domestic Preference

18.1. The Procuring Entity will grant a margin of preference for the purpose of comparison of Bids in accordance with Section 43.1.2 of the 2016 revised IRR of RA No. 9184.

19. Detailed Evaluation and Comparison of Bids

19.1. The Procuring BAC shall immediately conduct a detailed evaluation of all Bids rated "passed," using non-discretionary pass/fail criteria. The BAC shall

PR NOJREF, NO.: MG-A7M23-003

- 19.2. consider the conditions in the evaluation of Bids under Section 32.2 of the 2016 revised IRR of RA No. 9184.
- 19.3. If the Project allows partial bids, bidders may submit a proposal on any of the lots or items, and evaluation will be undertaken on a per lot or item basis, as the case maybe. In this case, the Bid Security as required by ITB Clause 15 shall be submitted for each lot or item separately.
- 19.4. The descriptions of the lots or items shall be indicated in Section VII (Technical Specifications), although the ABCs of these lots or items are indicated in the BDS for purposes of the NFCC computation pursuant to Section 23.4.2.6 of the 2016 revised IRR of RA No. 9184. The NFCC must be sufficient for the total of the ABCs for all the lots or items participated in by the prospective Bidder.
- 19.5. The Project shall be awarded as follows:
 - One Project having several items that shall be awarded as one contract.
- 19.6. Except for bidders submitting a committed Line of Credit from a Universal or Commercial Bank in lieu of its NFCC computation, all Bids must include the NFCC computation pursuant to Section 23.4.1.4 of the 2016 revised IRR of RA No. 9184, which must be sufficient for the total of the ABCs for all the lots or items participated in by the prospective Bidder. For bidders submitting the committed Line of Credit, it must be at least equal to ten percent (10%) of the ABCs for all the lots or items participated in by the prospective Bidder.

20. Post-Qualification

- 20.1. For multi-year Framework Agreement, all bidders initially determined to be eligible and financially compliant shall be subject to initial post-qualification. The BAC shall then recommend the execution of a Framework Agreement among all eligible, technically and financially compliant bidders and the Procuring Entity and shall be issued by HoPE a Notice to Execute Framework Agreement. The determination of the Lowest Calculated Bid (LCB) shall not be performed by the BAC until a Mini-Competition is conducted among the bidders who executed a Framework Agreement. When a Call for Mini-Competition is made, the BAC shall allow the bidders to submit their best financial proposals on such pre-scheduled date, time and place to determine the bidder with the LCB.
- 20.2. 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.

BID DOCUMENTS

NAME OF PROJECT: SUPPLY, DELIVERY, INSTALLATION & COMMISSIONING OF A7HPP TIE LINE PROT. WITH TRANSFER TRIP FUNCTION

SECTION II - INSTRUCTION TO BIDDERS

PR NO./REF, NO.: MG-A7M23-003

21. Signing of the Contract

21.1. 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.

BID DOCUMENTS

NAME OF PROJECT: SUPPLY, DELIVERY, INSTALLATION & COMMISSIONING OF A7HPP TIE LINE PROT. WITH TRANSFER TRIP FUNCTION

SECTION III- BID DATA SHEET

PR NO./REF, NO.: MG-A7M23-003

Section III

Bid Data Sheet

SECTION III- BID DATA SHEET

PR NO./REF. NO.: MG-A7M23-003

Bid Data Sheet

ITB Clause	
5.3	For this purpose, contracts similar to the Project shall be:
	a. Supply,Installation and Commissioningof Medium to Extra High Voltage (13.8kV and higher) substation equipment includingits controls and protection.
	b. Completed within last five (5) years prior to the deadline for the submission and receipt of bids.
7.1	Subcontracting is not allowed.
12	The price of the Goods shall be quoted DDPAgus 6/7 warehouse, Agus 6/7 HPC, Bgry. Ma, Cristina, Iligan City 9200 or the applicable International Commercial Terms (INCOTERMS) for this Project.
14.1	The bid security shall be in the form of a Bid Securing Declaration, or any of the following forms and amounts:
	a. The amount of not less than two hundred thousand pesos (P200,000.00) ((2%) of ABC), if bid security is in cash, cashier's/manager's check, bank draft/guarantee or irrevocable letter of credit; or
	b. The amount of not less five hundred thousand pesos (500,000.00) (5%) of ABC) if bid security is in Surety Bond.
19.3	Partial bid is not allowed.
20.2	Applicable documents to be presented/submitted during post-qualification;
	 Original Valid and Updated PhilGEPS Registration Certificate (Platinum Membership) (all pages); Registration certificate from Securities and Exchange Commission (SEC), Department of Trade and Industry (DTI) for sole proprietorship, or Cooperative Development Authority (CDA) for cooperatives or its equivalent document.
	 Mayor's or Business permit issued by the city or municipality where the principal place of business of the prospective bidder is located, or the equivalent document for Exclusive Economic Zones or Areas; Tax clearance per E.O. No. 398, s. 2005, as finally reviewed and approved by the Bureau of Internal Revenue (BIR).
21.2	[List here any additional contract documents relevant to the Project that may be required by existing laws and/or the Procuring Entity.]

BID DOCUMENTS

NAME OF PROJECT: SUPPLY, DELIVERY, INSTALLATION & COMMISSIONING OF ATHPP TIE LINE PROT, WITH TRANSFER TRIP FUNCTION

SECTION III- BID DATA SHEET

PR NO./REF, NO.; MG-A7M23-003

Section IV

General Conditions of Contract

SECTION IV- GENERAL CONDITIONS OF CONTRACT PRING/REF, NO. MG-A7M23-003

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.

Additional requirements for the completion of this Contract shall be provided in the Special Conditions of Contract (SCC).

2. Advance Payment and Terms of Payment

- 2.1. Advance payment of the contract amount is provided under Annex "D" of the revised 2016 IRR of RA No. 9184.
- 2.2. The Procuring Entity is allowed to determine the terms of payment on the partial or staggered delivery of the Goods procured, provided such partial payment shall correspond to the value of the goods delivered and accepted in accordance with prevailing accounting and auditing rules and regulations. The terms of payment are indicated in the SCC.

3. Performance Security

Within ten (10) calendar days from receipt of the Notice of Award by the Bidder from the Procuring Entity but in no case later than prior to 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 of RA No. 9184.

4. Inspection and Tests

The Procuring Entity or its representative shall have the right to inspect and/or to test the Goods to confirm their conformity to the Project specifications at no extra cost to the Procuring Entity in accordance with the Generic Procurement Manual. In addition to tests in the SCC, Section IV (Technical Specifications) shall specify what inspections and/or tests the Procuring Entity requires, and where they are to be conducted. The Procuring Entity shall notify the Supplier in writing, in a timely manner, of the identity of any representatives retained for these purposes.

SECTION IV- GENERAL CONDITIONS OF CONTRACT PRINO/REF. NO. MG-A7M23-003

All reasonable facilities and assistance for the inspection and testing of Goods, including access to drawings and production data, shall be provided by the Supplier to the authorized inspectors at no charge to the Procuring Entity.

5. Warranty

- 6.1. In order to assure that manufacturing defects shall be corrected by the Supplier, a warranty shall be required from the Supplier as provided under Section 62.1 of the 2016 revised IRR of RA No. 9184.
- 6.2. The Procuring Entity shall promptly notify the Supplier in writing of any claims arising under this warranty. Upon receipt of such notice, the Supplier shall, repair or replace the defective Goods or parts thereof without cost to the Procuring Entity, pursuant to the Generic Procurement Manual.

6. Liability of the Supplier

The Supplier's liability under this Contract shall be as provided by the laws of the Republic of the Philippines.

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

SECTION V- SPECIAL CONDITIONS OF CONTRACT

PR NOJREF, NO. MG-A7M23-003

Section V

Special Conditions of Contract

SECTION V'- SPECIAL CONDITIONS OF CONTRACT

PR NO./REF, NO. MG-A7M23-003

Special Conditions of Contract

GCC	Special Conditions of Contract				
Clause	ļ				
Ciadac					
1	Delivery and Documents —				
	For purposes of the Contract, "EXW," "FOB," "FCA," "CIF," "CIP," "DDP" and other trade terms used to describe the obligations of the parties shall have the meanings assigned to them by the current edition of INCOTERMS published by the International Chamber of Commerce, Paris. The Delivery terms of this Contract shall be as follows:				
	For Goods supplied from abroad, state: "The delivery terms applicable to the Contract are DDP delivered Agus 6/7 warehouse, Agus 6/7 HPC, Brgy. Ma, Cristina, Iligan City 9200. In accordance with INCOTERMS."				
	For Goods supplied from within the Philippines, state: "The delivery terms applicable to this Contract are delivered Agus 6/7 warehouse, Agus 6/7 HPC, Bgry, Ma. Cristina, Iligan City 9200. Risk and title will pass from the Supplier to the Procuring Entity upon receipt and final acceptance of the Goods at their final destination."				
	Delivery of the Goods shall be made by the Supplier in accordance with the terms specified in Section VI (Schedule of Requirements).				
	For purposes of this Clause the Procuring Entity's Representative at the Project Site is Mr. Michael T. Pates, EE/IC Plant Superintendent, Agus 7 HPP.				
	Incidental Services –				
	The Supplier is required to provide all of the following services, including additional services, if any, specified in Section VI. Schedule of Requirements:				
	 a. furnishing of a detailed operations and maintenance manual (3 hardcopies and 1 softcopy) for each appropriate unit of the supplied Goods; 				
	b. performance or supervision or maintenance and/or repair of the supplied Goods, for a period of time agreed by the parties, provided that this service shall not relieve the Supplier of any warranty obligations under this Contract; and				
	c. training of the Procuring Entity's personnel, at the Supplier's plant and/or on-site, in assembly, start-up, operation, maintenance, and/or repair of the supplied Goods.				

SECTION V'-- SPECIAL CONDITIONS OF CONTRACT

PR NO./REF. NO. MG-A7M23-003

The Contract price for the Goods shall include the prices charged by the Supplier for incidental services and shall not exceed the prevailing rates charged to other parties by the Supplier for similar services.

Spare Parts -The Supplier is required to provide all of the following materials, notifications, and information pertaining to spare parts manufactured or distributed by the Supplier:

- a. such spare parts as the Procuring Entity may elect to purchase from the Supplier, provided that this election shall not relieve the Supplier of any warranty obligations under this Contract; and
- b. in the event of termination of production of the spare parts:
 - i. advance notification to the Procuring Entity of the pending termination, in sufficient time to permit the Procuring Entity to procure needed requirements; and
 - ii. followingsuch termination, furnishing at no cost to the Procuring Entity, the blueprints, drawings, and specifications of the spare parts, if requested.

The spare parts and other components required are listed in Section VI (Schedule of Requirements) and the costs thereof are included in the contract price.

The Supplier shall carry sufficient inventories to assure ex-stock supply of consumable spare parts or components for the Goods for a period of three (3) years.

Spare parts or components shall be supplied as promptly as possible, but in any case, within six (6) months of placing the order.

Packaging —The Supplier shall provide such packaging of the Goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in this Contract. The packaging shall be sufficient to withstand, without limitation, rough handling during transit and exposure to extreme temperatures, salt and precipitation during transit, and open storage. Packaging case size and weights shall take into consideration, where appropriate, the remoteness of the Goods' final destination and the absence of heavy handling facilities at all points in transit.

SECTION V'-- SPECIAL CONDITIONS OF CONTRACT

PR NO./REF. NO. MG-A7M23-003

The packaging, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Contract, including additional requirements, if any, specified below, and in any subsequent instructions ordered by the Procuring Entity.

The outer packaging must be clearly marked on at least four (4) sides as follows:

Name of the Procuring Entity

Name of the Supplier

Contract Description

Final Destination

Gross weight

Any special lifting instructions

Any special handling instructions

Any relevant HAZCHEM classifications.

A packaging list identifying the contents and quantities of the package is to be placed on an accessible point of the outer packaging if practical. If not practical the packaging list is to be placed inside the outer packaging but outside the secondary packaging.

Transportation —Where the Supplier is required under Contract to deliver the Goods CIF, CIP, or DDP, transport of the Goods to the port of destination or such other named place of destination in the Philippines, as shall be specified in this Contract, shall be arranged and paid for by the Supplier, and the cost thereof shall be included in the Contract Price.

Where the Supplier is required under this Contract to transport the Goods to a specified place of destination within the Philippines, defined as the Project Site, transport to such place of destination in the Philippines, including insurance and storage, as shall be specified in this Contract, shall be arranged by the Supplier, and related costs shall be included in the contract price.

Where the Supplier is required under Contract to deliver the Goods CIF, CIP or DDP, Goods are to be transported on carriers of Philippine registry. In the event that no carrier of Philippine registry is available, Goods may be shipped by a carrier which is not of Philippine registry provided that the Supplier obtains and presents to the Procuring Entity certification to this effect from the nearest Philippine consulate to the port of dispatch. In the event that carriers of Philippine registry are available but their schedule delays the Supplier in its performance of this Contract the period from when the Goods were first ready for shipment and the actual date of shipment the period of delay will be

NAME OF PROJECT: SUPPLY, DELIVERY, INSTALLATION & COMMISSIONING OF A7HPP TIE LINE PROT. WITH TRANSFER TRIP FUNCTION

The Control Typing

SECTION V'-SPECIAL CONDITIONS OF CONTRACT

PR NO./REF. NO. MG-A7M23-003

	considered force majeure.
	The Procuring Entity accepts no liability for the damage of Goods during transit other than those prescribed by INCOTERMS for DDP deliveries. In the case of Goods supplied from within the Philippines or supplied by domestic Suppliers risk and title will not be deemed to have passed to the Procuring Entity until
	Intellectual Property Rights -The Supplier shall indemnify the Procuring Entity against all third-party claims of infringement of patent, trademark, or industrial design rights arising from use of the Goods or any part thereof. "The terms of payment shall be as follows: 30 days."
2,2	The inspections and tests that will be conducted are: Inspection and Quality Checking Functional Checks Test and Commissioning

SECTION VI- SCHEDULE OF REQUIREMENTS

PR NOJREF, NO. MG-A7M23-003

Section VI. Schedule of Requirements

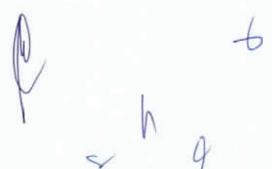
The delivery schedule expressed as weeks/months stipulates hereafter a delivery date which is the date of delivery to the project site.

Item Number	Description	Quantity	Total	Delivered, Weeks/Months
1	Supply, Delivery, Installation & Commissioning of A7HPP Tie Line Protection with Transfer Trip Function	1 lot	PHP10,000,000.00	Three Hundred Calendar Days (300) from the date Indicated in the Notice to Proceed
	_			

SECTION VII- TECHNICAL SPECIFICATION

PR NO./REF. NO.: MG-A7M23-003

Section VII Technical Specifications



SECTION VIII- CHECKLIST OF TECH, AND FINAN DOCS AND BIDDING FORMS

PR NO./REF. NO. MG-A7M23-003

Conformity with the Technical Specifications - 1 (Scope of Works)

Items	Scope of Works	Supplier's Data and Statement of Compliance
1	Site inspection at Agus 6&7 HPPC and confer with end user about specific requirement and other technical details necessary for the completion of the project.	
2	Preparation of Materials/resources onsite and site evaluation.	
3.	Removal of the existing ground wire installed in the transmission tower from Agus 7 – Agus 6 SS 138kV Tie Line.	
4.	Removal of old relays and auxiliaries at the transfer trip/trip device/control/protection panels at Agus 7 Control Room.	
5.	Conduct fiber optic cable (OPGW) laying and installation from NPC SWYD to Agus 6 NGCP Substation. Conduct fiber optic splicing and testing of fiber optic connection with OTDR, Visual Fault Locator and Power Meters.	
6	Supply and design of interfacing drawings, install, test and commissioning of Line Protection Relays at existing NPC Line Protection Panels.	
7.	Supply and delivery of peripheral devices necessary for data and differential relay networking.	
8.	Other parts and accessories which are not specifically mentioned herein but are necessary for the proper assembly and operation of the project shall also be furnished.	
9.	Conduct relay setting and configuration, testing and commissioning of supplied protection relays including the conduct of Line Protection relay end-to-end testing using two(2) sets of GPS time synchronized Protection Relay Test Equipment. Submit calibration certificate of test equipment to be used during post-evaluation.	
10	Conduct Philippine Grid Code (2016) required fault clearance test to determine the total fault clearing time of the relay including associated installed accessories.	
11.	Technology transfer to Agus 7 HPP and CMTSD on the software of the line protective relays.	

SECTION VIII- CHECKLIST OF TECH Name of Bidder:	AND FINAN DOCS AND BIDDING FORMS	PR NO /REF	NO	MG-A7M23-003
Signature(s) of Bidder:				

Conformity with the Technical Specifications - 2 (Administrative and Documentary Requirements)

Warranty After-sales support	Five (5) years for the line protection relays and two (2) years for the OPGW including the installation.	
After-sales support		
	Five years after the warranty period	
Delivery/completion date	300 Calendar Days	
Delivery point	Agus 6&7 Warehouse	
Authority to Bid or Letter of confirmation from the manufacturer of Line Protection Relay and 24- core Fiber Optic Line of OPGW that a local agent or representative is available to provide "After Sales Service" to the supplied Components /parts / accessories during and after the warranty period. Name, address and contact number shall be provided	Submit the authority to bid or letter of confirmation as part of the eligibility requirements(To be included in Envelope 1)coming from 1 The Original Equipment Manufacturer (OEM) or its Philippine Subsidiary, or 2 Authorized Product Distributor In this case, the bidder shall also submit the Distributorship Agreement (DA) between the manufacturer and the said authorized distributor. The DA must also indicate that the distributor is vested with authority to distribute the product in the Philippines. 3 If the bidder is an Authorized Distributor in the Philippines. submission of its DA with OEM in lieu of the required authority to bid will suffice. The submitted Authority to Bid	
1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Authority to Bid or Letter of confirmation from the manufacturer of Line Protection Relay and 24-core Fiber Optic Line of OPGW that a local agent or representative is available to provide "After Sales Service" to the supplied Components /parts / accessories during and after the warranty period. Name, address and contact	Authority to Bid or Letter of confirmation from the manufacturer of Line Protection Relay and 24- core Fiber Optic Line of OPGW that a local agent or representative is available to provide "After Sales Service" to the supplied Components /parts / accessories during and after the warranty period. Name, address and contact number shall be provided Agus 6&7 Warehouse Submit the authority to bid or letter of confirmation as part of the eligibility requirements (To be included in Envelope 1) coming from 1 The Original Equipment Manufacturer (OEM) or its Philippine Subsidiary, or 2 Authorized Distributor In this case, the bidder shall also submit the Distributorship Agreement (DA) between the manufacturer and the said authorized distributor. The DA must also indicate that the distributor is vested with authority to distribute the product in the Philippines. 3 If the bidder is an Authorized Distributor in the Philippines, submission of its DA with OEM in lieu of the required authority to bid will suffice.





SECTION VIII- CHECKLIST OF TECH, AND FINAN DOCS AND BIDDING FORMS PRING/REF, NO. MG-A7M23-003

Item	Description	NP C Requirements	Supplier's Data and Statement of Compliance
		should indicate the validity period and must still be valid during the opening of bids.	
	Manpower requirement	Submit the following as part of the eligibility requirements (To be included in Envelope 1):	
	Registered Electrical Engineer	- copy of valid license - with copy of 10 years experience in installation, testing and commissioning of protection systems	
6	2. Safety Officer	- 40 Hours BOSH/COSH copy of Training Certificate	
ь	Registered Master Electrician	- copy of valid license	
	4. Lineman	with certification training/experience from TESDA or NGCP or any distribution utility.	
	5. Fiber Optic Technician	with certification training/experience from TESDA or any fiber optic training certificates.	
7	Safety Data Sheet	N/A	
	Brochure	Submit the following brochures as part of the eligibility requirements (To be included in Envelope 1): 1. Line protection relay	
8		Optical ground wire (OPGW) Instrumentation cables Industrial grade network switches Fiber optic patch cord	





SECTION VIII- CHECKLIST OF TECH. AND FINAN DOCS AND BIDDING FORMS PR NO./REF. NO. MG-A7M23-003 Supplier's Date and

Item	Description	NP C Requirements	Statement of Compliance
		Fiber optic termination box Test plugs for relay testing as evidence of the compliance to the required Technical Specifications(To be included in Envelope 1)	

Conformity with the Technical Specifications - 3

- Bidders must state here either "Comply" or "Not Comply" against each of the individual parameters of each Specification stating the corresponding performance parameter of the equipment offered.
- 2. Statements of "Comply" or "Not Comply" must be supported by evidence in a Bidders Bid and cross-referenced to that evidence (Under Supplier's Data and Statement of Compliance and after each specification statement, provide guide for the evaluation, such as page number and/or part number, model number where declared specification(s) is found as evidence). Evidence shall be in the form of manufacturer's un-amended sales literature, unconditional statements of specification and compliance issued by the manufacturer, samples, independent test data etc., as appropriate. A statement that is not supported by evidence or is subsequently found to be contradicted by the evidence presented will render the Bid under evaluation liable for rejection. A statement either in the Bidder's statement of compliance or the supporting evidence that is found to be false either during Bid evaluation, post-qualification or the execution of the Contract may be regarded as fraudulent and render the Bidder or supplier liable for prosecution subject to the applicable laws and issuances.

Item	Description	NPC Required Specifications	Supplier's Data and Statement of Compliance
1	Line Protection Relay		
	Quantity	Two (2) sets. Each set is composed of two (2)	



SECTION VIII- CHECKLIST OF TECH. AND FINAN DOCS AND BIDDING FORMS PR NO /REF. NO. MG-A7M23-003

Item	Description	NPC Required Specifications	Supplier's Data and Statement of Compliance
		relays. A total of Four (4) relays • Special Conditions: Each set of relays must have a different brand and model.	
	Brand Name	By Supplier	
	Model Name	By Supplier	
	Ordering Code/Part Number	By Supplier	
	Type:	Micro-processor based, multi- function.	
	Mounting:	Surface Mounted	
	Technical Description	The longitudinal differential protection shall be designed for all overhead line and cable applications, interfacing readily with the end-end communications channel(s) between line terminals. The interface options shall support direct fibre optic, or multiplexed digital links. Model options shall be available to offer resident sub-cycle distance protection, to complement the powerful suite of main and backup protection. Such distance protection shall be full scheme, at least four-zone.	
	General Input/Output Terminals	All terminals shall be ring-lug screw type for security and robustness: • The screw size shall be M4 to allow suitable torque tightness: • Connection of up to two independent ring lugs per terminal shall be supported to permit daisy-chaining of connections where required,	

SECTION VIII- CHECKLIST OF TECH. AND FINAN DOCS AND BIDDING FORMS PRING /REF. NO. MG-A7M23-003

Item	Description	NPC Required Specifications	Supplier's Data and Statement of Compliance
		two wires in a ferrule	
	Front Port Serial PC Interface	A front panel communication port shall be provided for service access by relay technicians/engineers, communicating with the configuring and reporting software: • Isolation shall be to FLV level.	
		Cable lengths up to 15m shall be supported for the PC connection.	
	Rear Ethernet Connections for IEC 61850	Station bus (IEC 61850-8-1) and optional process bus (IEC 61850-9-21 F) physical ports shall be provided, the latter only where required for the application: • The relay shall have two fiber optic ports as an ordering option, to support communication redundancy, for IEC61850-8-1 or DNP3.0 communication. A choice of redundancy protocols shall be available, such as IEC 62439-3 PRP or HSR, RSTP based on IEEE 802.1w. Self-Healing Ring (SHR) and Dual Homing Star (DHS). PRP and HSR shall be provided in a single ordering option, switchable with a software configurator.	
		FX interface in accordance with IEEE 802.3 and IEC 61850, wavelength 1300nm, for multi-mode 50/125µm or 62.5/125µm fibre, connector style: IEC 874-10 BFQC 2.5 -	0./

SECTION VIII- CHECKLIST OF TECH, AND FINAN DOCS AND BIDDING FORMS PRINO, REF. NO. MG-A7M23-003

Item	Description	NPC Required Specifications	Supplier's Data and Statement of Compliance
		(ST®)	
		A single RJ45 or fiber optic Ethernet port shall also be available as an option for IEC61850 / DNP3.0 communication	
		Hot standby redundancy (Ethernet failover) shall also be available as an ordering option.	
	Rear Serial Communication interface for SCADA	The relay shall have a minimum of one rear EIA (RS-485 port) for SCADA communications.	
		 It shall be possible to have an additional rear-panel E1A-232 or E1A-485 port. 	
		A fibre optic port shall be available for serial communication, as an option.	
		 Protocols supported shall be: Modbus, IFC60870-5-103 and DNP3 	
		Windows # -based PC software for setting, event and disturbance record retrieval, metering, and control.	
	AC Measurement Range	 The device shall be suitable for power systems operating at 60Hz. The operating range for the network frequency shall be from 45 to 65Hz; 	
		The relay shall be suitable for current transformer secondary ratings of 5A and shall be selectable, as required. The current transformer inputs shall have a continuous rating of at least 3 times the rated current and a short time thermal withstand capability of 100 times the rated current.	





SECTION VIII- CHECKLIST OF TECH. AND FINAN DOCS AND BIDDING FORMS PRING /REF NO. MG-A7M23-003

Item	Description	NPC Required Specifications	Supplier's Data and Statement of Compliance
		for I second:	
		 The dynamic range for current input shall be in excess of 64 times rated current; 	
		 The current inputs shall have automatic CT shorting when the analogue module is removed, to enhance the safe working environment of technicians and relay engineers; 	
		The voltage transformer inputs shall be rated for 100/120V AC and shall have a continuous rating of at least 1.5 times the rated voltage. The inputs shall have a short time thermal withstand capability of at least 2.5 times the rated voltage for I second.	
	Auxiliary Voltage (Vx)	The device auxiliary power supply input shall accommodate at least two standard battery voltage ratings used by the utility, such as to minimize, or eliminate multiple ordering options and spares holdings. Typical ratings most common in the utility environment shall include: • 110V to 250Vde nominal range (covering both 110/125V and 220/250V battery supplies in a single ordering option);	
		The device shall operate for a deviation from the nominal range of -20% lower nominal voltage, up to +20% of higher nominal voltage: Auxiliary power supply	





SECTION VIII- CHECKLIST OF TECH. AND FINAN DOCS AND BIDDING FORMS PR NO./REF. NO. MG-A7M23-003

Item	Description	NPC Required Specifications	Supplier's Data and Statement of Compliance
		interruption ride-through according to IEC 60255-11: 2013, with all communications ports active, all binary I/O energized, and LCD backlight on: 20ms;	
		 With a tolerable ac ripple of up to <15% for a de supply, as per IEC 60255-11: 2013; 	
		 The quiescent burden of the energized device shall be less than 11W; 	
		The initial current inrush at switch-on shall be limited to no more than 8A.	
	Digital ("Opto") Inputs & Output Contacts	 To accommodate a multitude of protection functions and high number of switchgear elements, the relay shall offer flexibility in ordering up to 8 opto inputs and 12 output contacts. 	
	Opto Inputs	 Opto inputs shall provide independent terminals for wiring. Grouped optos shall not be acceptable; 	
		 The opto inputs shall be universal range, rated from 24V to 250Vdc nominal, with a withstand up to 300Vdc; 	
		 The opto inputs shall have a software-selectable pick-up setting 	
		The pick-up setting shall be matched at approximately 80% of battery nominal, with reset hysteresis such that drop-off is at approximately 60% of battery nominal. Such operation shall ensure that spurious pickup is avoided for battery earth.	

37

Item	Description	NPC Required Specifications	Supplier's Data and Statement of Compliance
		faults where half-voltage may be falsely experienced by capacitive coupling:	
		Opto inputs shall be compliant to ESI 48-4 EB2, presenting a "high burden" to prevent spurious pickup for capacitive discharge, with intelligent switching to reduce the burden to a low quiescent value under genuine operated conditions;	
		 Opto inputs shall be immune to capacitor discharge and power frequency without the need for external suppression. External resistors shall not be permitted; 	
		 It shall be possible to connect two in series, with voltage sharing across the pair, permitting deployment in trip circuit supervision schemes (if required). It shall be possible to implementation full trip circuit supervision scheme via the optos: the supervision shall be active for CB open as well as closed conditions (full H7 scheme). 	
	Output Contacts	The rating of the output contacts shall be as follows, in accordance with IEC 60255-1: 2009: • Maximum continuous current capacity shall be 10A, or 8A as measured by the harsher UL-compliant method;	
		The short term make and carry rating shall be 30A for 2 250A for 30mm.	





3s, 250A for 30ms;

· The DC break capacity shall

SECTION VIII- CHECKLIST OF TECH. AND FINAN DOCS AND BIDDING FORMS PR NO./REF. NO. MG-A7M23-003

Item	Description	NPC Required Specifications	Supplier's Data and Statement of Compliance
		be 50W resistive or 62.5W inductive (L/R = 50ms);	
		 Maximum Voltage Rating: 250VAC/VDC 	
		 Pick-up time: 5msec (Trip Output) and 10msec (Signal Output) 	
		Bounce Time: Imsec	
		 It shall be possible to configure software latching (lockout) function for output contacts, whose status is memorized for reapplication after a power supply interruption. 	
	High Break Contacts	High speed, high break contacts shall be available optionally (operating time <0.2 ms, DC inductive break – 2500W – L/R = 50 ms).	
	Watchdog Contacts	Watchdog contacts shall be provided, with relay healthy (normally open) and relay fail/de-energized (normally closed) connection outputs available. Any error detected by the device self-monitoring shall cause an alarm to be raised, such that hardwiring of an alarm to adjacent devices is possible, if required. The contact ratings shall be: • DC breaking capacity 30W resistive, 15W inductive (L/R = 40ms).	
	LED Indicators	Up to eight/eighteen freely- programmable LED indicators shall be provided, in addition to fixed function LEDs for Alarm. Trip, Out of Service and Healthy indication: • It shall be possible to	





SECTION VIII- CHECKLIST OF TECH, AND FINAN DOCS AND BIDDING FORMS PRING /REF. NO. MG-A7M23-003

Item	Description	NPC Required Specifications	Supplier's Data and Statement of Compliance
		configure software latching function for the LEDs, whose status is memorized for reapplication after a power supply interruption.	
		In relays with function keys, it shall be possible to set all the programmable LEDs in three different colours - RED / YELLOW / GREEN as per the scheme requirement using the programmable logic scheme.	
	HMI Display	A textual LCD display screen shall be provided on the product, capable to display power system measurements, fault and event records, interrogate alarms, implement pass worded access control, initiate commissioning test modes, monitor I/O status, alter protection settings, and change setting groups;	
		The device menu shall incorporate dependency rules, such that menu cells which are rendered inapplicable as a result of a previous menu selection are removed/hidden. Any of those ranges of options or settings range affected shall also be automatically adapted;	
		Multi-language support shall be provided, the following being the minimum: English, French, German, Spanish, Italian, Russian, Portuguese and Chinese, Whichever local	



s j

SECTION VIII- CHECKLIST OF TECH. AND FINAN DOCS AND BIDDING FORMS PR NO./REF. NO. MG-A7M23-003

Item	Description	NPC Required Specifications	Supplier's Data and Statement of Compliance
		language is applied, simple switching to English shall always be possible to allow factory support, 3rd party commissioning etc.	
	Protection and Control	Optimized models shall be available, considering typical applications: • HV transmission applications (sub-cycle tripping), dual breaker;	
		The relay shall be capable of providing the following functions: • Phase differential: • Neutral differential:	
		 Subcycle distance with at least four (4) zones; 	
		 Minimum 3 stages of directional / non-directional, instantaneous / time delayed phase overcurrent; 	
		 Minimum 2 stages of directional / non-directional, instantaneous / time delayed earth overcurrent; 	
		 Directional / non-directional negative sequence overcurrent; 	
		 RMS thermal overload (single / dual time constant); 	
		Restricted earth fault;	
		 Minimum 2 stages of undervoltage; 	
		 Minimum 2 stages of overvoltage; 	
		 Minimum 2 stages residual overvoltage (neutral displacement); 	
		Minimum 2 stage of underfrequency;	





SECTION VIII. CHECKLIST OF TECH AND FINAN DOCS AND RIDDING FORMS. PRING (REF. NO. MG-A7M23-003

Item	Description	NPC Required Specifications	Supplier's Data and Statement of Compliance
		 Minimum 2 stage of overfrequency; 	
	Differential Protection (87)	The relay shall have per phase line differential protection with inbuilt distance protection available as a permanent parallel main protection function, or selectively enabled in the event of failure of differential element communications. Capacitive charging current compensation shall be provided.	
		In distribution applications it shall be possible to apply the relay to feeders with transformers in their zone. For such applications the relay shall provide phase compensation settings, inrush restraint and CT ratio correction factor settings.	
		The relay shall have starters for the current differential protection to improve differential protection stability during communication path switching and other communication issues. The starters shall offer current magnitudes, sequence components and delta step- changes as detection methods.	
		The relay shall have supervision of standing differential current for alarm purposes.	
		It shall be possible to configure the line differential relays for two and/or three terminal lines in a single variant, without changing any order code.	







	VIII- CHECKLIST OF TECH. AND FI	CONTRACTOR CONTRACTOR),REF. NO. MG-A7M23-003 Supplier's Data and
Jum	Description	NPC Required Specifications	Statement of Compliance
		The relay shall have a neutral	
		differential protection element	
	1	to clear high resistive ground	
		faults which can be below the	
ļ		phase current differential's	
		minimum sensitivity.	
		The differential protection shall	
		support IEEE C37.94 or	
		equivalent IEC standard,	
		1300nm direct fiber and	
		1550nm direct fiber connections	
		between protected circuit ends.	<u></u>
[Distance Protection (21.	Distance protection shall be	
	SOTF, PSB, OST)	available, full scheme, and with	
		five zones.	
		Instantaneous tripping in Zone 1	
		and aided channel signal send	
		shall be in no greater than one	
		power system cycle (16.7ms on	
1		a 60Hz system) for faults up to	
		80% of the zone reach. This	
		shall be true for all source-line	
		impedance ratios up to 5 (60Hz	
		system).	
		The distance characteristics	
		shall be selectable between mho	:
		and quadrilateral for all 5 zones	
		of protection.	
		Simple and advanced setting	
		modes shall be available for	
-		zone settings. All zone	
		characteristic parameters (reach,	
		angle, resistive coverage etc.)	
		shall be independently settable	
		for each zone in the advanced	







mode.

SECTION VIII- CHECKLIST OF TECH, AND FINAN DOCS AND BIDDING FORMS. PR NO./REF, NO. MG-A7M23-003

Item	Description	NPC Required Specifications	Supplier's Data and Statement of Compliance
		The distance protection shall include a load blinder feature for security in the presence of heavy loading. The load blinder shall be released by phase-selective undervoltage detection.	
		Protection zones shall have a settable minimum current sensitivity for pickup.	
		The distance protection shall include CVT (capacitor voltage transformer) filtering for optimum performance with CVTs. This shall be effected as intelligent filtering such as to retain fast operation.	
		There shall be provision for two independent channel aided schemes. In addition to the standard Aided Schemes, there shall be provision for a programmable (user configurable) aided scheme utilizing the available zone signals.	
		The distance zones shall offer a switch on to fault (SOTF) function to detect zero-voltage close-up faults present on line energization.	
		Power swing blocking (PSB) shall be provided, with the response of each zone element during power swings being configurable: to allow tripping, block, or to effect an unblock after a settable delay. An adaptive power swing detection method shall be provided, which is able to recognize the waveform trend of a power	

44

SECTION VIII- CHECKLIST OF TECH. AND FINAN DOCS AND BIDDING FORMS PRING /REF. NO. MG-A7M23-003

Item	Description	NPC Required Specifications	Supplier's Data and Statement of Compliance
		swing, without needing to employ starter zones or impedance bands.	
		Out of step tripping (OST) shall be provided, able to separate the power system in the event that synchronous connection between power system islands has been lost. The OST feature shall employ impedance-based detection, with the means to delay the system separation to when the current passing through the circuit breaker is expected to be minimized.	
	Directional / Non- directional Overcurrent and Earth Fault Protection (50/51, 50N/51N, 67/67N)	The relay shall have the freedom to set directionality (forward/reverse) independently for all the overcurrent and earth fault protection stages. The earth fault protection shall provide two options for directional earth fault (DEF) polarization: residual voltage (zero sequence) or negative sequence. For the phase fault elements, the device shall determine directionality by internal polarization from the quadrature phase-phase voltages. For close up three-phase faults, the device shall include a synchronous polarization feature that stores the pre-fault voltage information and continues to apply this to the directional overcurrent.	







SECTION VIII- CHECKLIST OF TECH. AND FINAN DOCS AND BIDDING FORMS PRINO, REF. NO. MG-A7M23-003

Item	Description	NPC Required Specifications	Supplier's Data and Statement of Compliance
		elements for a time period of a few seconds. This ensures that either instantaneous or time- delayed directional overcurrent elements will be allowed to operate, even with a three-phase voltage collapse.	
		Time overcurrent curve characteristics; IEEE, IEC, and definite time shall be available. The phase and earth elements shall include optional 2nd harmonic blocking.	
		The DEF element shall have an inverse time/definite time characteristic with a possibility to configure the DEF in both channel-aided and/or channel-independent modes of operation.	
	Undervoltage (27)	A minimum of 2 stages of undervoltage protection, configurable as either phase to phase or phase to neutral measuring shall be provided.	
		The protection shall be configurable as any phase or three phase operation. Definite-time shall be available for all stages with IDMT available for at least the first stage.	
	Overvoltage (59)	A minimum of 2 stages of overvoltage protection, configurable as either phase to phase or phase to neutral measuring shall be provided. The protection shall be configurable as any phase or three phase operation. Definite-time shall be available for both stages with IDMT available for at least the first stage.	

PR NO /REF. NO. MG-A7M23-003

Item	Description	NPC Required Specifications	Supplier's Data and Statement of Compliance
	(59N)	shall be available for earth fault protection where there is an isolated or high impedance earth. The residual voltage shall be can be calculated from the three phase to neutral voltage measurements. A minimum of two independent stages of protection shall be provided.	
	RMS Thermal Overload (49)	The relay shall two characteristics for thermal overload protection - a single time constant characteristic and a dual time constant characteristic. Single time constant characteristic shall use same equation as in IEC60255-8 and suitable to be used to protect cables, dry type transformers and capacitor banks. The dual time constant characteristic shall be suitable to be used to protect equipment such as oil-filled transformers with natural air cooling. The dual time constant characteristic serves to protect the winding insulation from ageing and to minimize gas production by overheated oil.	
	Fault Locator (21)	The relay shall include a fault locator function, which identifies the fault location by measuring the fault voltage and current magnitude and phasors. The fault locator shall use prefault and post-fault analogue input signals to calculate the fault location, reading in kilometers, miles or % of protected circuit length.	







SECTION VIII- CHECKLIST OF TECH AND FINAN DOCS AND BIDDING FORMS PRING /REF NO /REF NO

Item	Description	NPC Required Specifications	Supplier's Data and Statement of Compliance
		The fault locator shall offer built-in mutual compensation for parallel circuits.	
	Current Transformer Supervision (CTS)	The relay shall have an inbuilt differential current transformer supervision function, which is not reliant on voltage inputs, to supervise the current transformers and their circuitry, at all ends of the scheme. The function shall differentiate between a fault and a CT circuitry problem. An alarm shall be given after a set time delay, if the CT supervision function operates. There shall also be provision to block the differential protection.	
	Voltage Transformer Supervision (VTS)	Voltage transformer supervision shall be provided (1, 2 and 3 phase fuse failure detection, or MCB opening) to prevent maloperation of voltage dependent protection elements on loss of a VT input signal. There shall also be a provision to block the voltage dependent protection.	
	Phase Rotation	Phase rotation settings shall be available to cater for ABC or ACB primary system senses for all 3-phase current and voltage channels.	
	Disturbance Recording	The device shall include disturbance recording, suitable to record a minimum of 8 fault clearance events: •The resolution of the records shall be 16 samples per cycle or greater:	







SECTION VIII- CHECKLIST OF TECH AND FINAN DOCS AND BIDDING FORMS PRING /REF NO MG-A7M23-003

Item	Description	NPC Required Specifications	Supplier's Data and Statement of Compliance
		•The record storage shall be maintained even after the device has been powered-down;	
		•The disturbance records shall have 8 analogue, 32 digital and 1 time channel;	
		 All channels and the trigger source shall be user configurable; 	
		•The disturbance records time length shall be configurable from 0.5 s to 10.5 s;	
		 It shall be possible to retrigger the recording in case a long duration record is required; 	
		 The disturbance records shall be available from the relay via the remote communications and saved in the COMTRADE format. 	
	Event Recording	The device shall include event recording, suitable to record a minimum of 1024 time-tagged events: •The time stamp resolution of the records shall be 1ms:	
		•The record storage shall be maintained even after the device has been powered-down;	
		•The menu and configuring software shall provide shortcut access to at least the last 5 fault trip records;	
		Any maintenance events captured by the IED self- monitoring shall be visible in the event log:	









SECTION VIII- CHECKLIST OF TECH. AND FINAN DOCS AND BIDDING FORMS PRING/REF. NO. MG-A7M23-003

Item	Description	NPC Required Specifications	Supplier's Data and Statement of Compliance
		 Filtering of events shall be possible at the relay configuration stage so the use of event buffer may be limited to relevant events only. 	
	Programmable Logic	The device shall include a graphical programmable logic facility, to enable customizing of the device response to the utility's exact requirements: •Programmable logic shall be provided including OR, AND and majority gate functions, with the ability to invert the inputs and outputs, and provide feedback paths in the logic. A minimum of 100 logic gates shall be available;	
		Time elements shall be provided, including delay on pick-up (DPU), delay on dropotf (DDO), combined DPU/DDO, pulsed, and minimum dwell time functions.	
		 A minimum of 16 timers shall be provided (not counting the timer functions which are expected to be an inherent provision with each output contact and LED indicator function); 	
		 The concurrent processing of the logic shall ensure that the full logic declares a stable result without any race effects due to calculation lag; 	
		•The logic shall not take the form of logic equations, but must be formed with graphical drag and drop gates, with all logic processed concurrently. There shall be no need to	







SECTION VIII- CHECKLIST OF TECH. AND FINAN DOCS AND BIDDING FORMS PR NO./REF. NO. MG-A7M23-003

Item	Description	NPC Required Specifications	Supplier's Data and Statement of Compliance
		observe sequential "rules" which constrain in what order gates are processed, and how they affect any declared result;	
		•The amount of logic programmed shall not in any way affect the deterministic behavior of the protection, control and communication functions in the relay. Whether the logic is sparsely used, or used up to its maximum capacity, this shall not change the operating time of those functions:	
		 Vice-versa, the programmable logic shall remain deterministic regardless of the extent of other device functions enabled; 	
		 A license-free graphical PC tool shall be provided, to configure the programmable logic; 	
		 The IED shall be supplied with pre-loaded default PSL schemes that provide a typical application scheme, to save on engineering / implementation time in projects. 	
	Measurements	The device shall include capabilities for real-time AC measurements, derived power and energy quantities, and demand values;	
		 It shall be possible to view all remote end currents on the local IED. 	
	Setting Groups	The device shall offer four programmable setting groups, including independent logic	







SECTION VIII- CHECKLIST OF TECH. AND FINAN DOCS AND BIDDING FORMS PRING/REF, NO. MG-A7M23-003

Item	Description	NPC Required Specifications	Supplier's Data and Statement of Compliance
		schemes.	
	Other Required Features	Capable of single-pole and three-pole tripping.	
		With magnetizing inrush restraint and blocking facility.	
		With 2nd harmonic blocking.	
		With continuous monitoring of abnormal conditions of measuring elements and other vital components.	
		With TCS capable of monitoring trip coil during open and close state of breaker.	
		With DC supply monitoring.	
	Configuring and Reporting Software	The device shall be supported by a license-free Windows R-based tool suite, with support for operating systems up to Windows 7. The tool suite shall support: •Creation of offline protection settings, downloading and uploading to the device: •Standard application template creation for protection settings, such that the utility can standardize on a number of global templates, where only local (feeder-specific) thresholds change at each site:	
		Settings file export and import in Excel format; Graphical creation and editing	
		of programmable logic:	
		 Comparison of setting files to identify any differences between versions; 	
		Creation of IEC 61850 configuration file and reports:	







SECTION VIII- CHECKLIST OF TECH. AND FINAN DOCS AND BIDDING FORMS PR NO /REF. NO. MG-A7M23-003

Item	Description	NPC Required Specifications	Supplier's Data and Statement of Compliance
		Retrieval of fault, event and disturbance records, and cybersecurity logs:	
		 Display of extracted records, including disturbance record waveform graphics; 	
		 Changing of settings groups, control and resetting commands; 	
		·Polling of measurement values;	
		 Export of settings files in .xrio format, for compatibility with protection testing equipment. 	
	Communications	Station Bus – IEC 61850-8-1: •IEC 61850 Edition 2 support is preferred:	
		 The relay shall support up to 16 concurrent IEC61850 client connections; 	
		•The logical devices (LD) and logical nodes (LN) shall be editable; such that the LN and LD instances may be renamed, deleted, restored or moved as necessary. This shall allow the user to tailor the IEC 61850 data model in line with the specific application:	
		 Simple Network Management Protocol (SNMP) shall be provided to manage the device in an IP network. Two versions of SNMP shall be supported: version 2c. and a cybersecure implementation of version 3; 	







SECTION VIII- CHECKLIST OF TECH. AND FINAN DOCS AND BIDDING FORMS PR NO /REF. NO. MG-A7M23-003

Item	Description	NPC Required Specifications	Supplier's Data and Statement of Compliance
		•The device shall include edition 2 test modes. The device may be set into its test mode, where it shall respond only to control commands from clients with the 'Test' flag set, with or without contact closure as desired. There shall also be a setting for field testing with simulated IEC 61850-8-1 GOOSE and -9-2LE sampled values (the latter for process bus equipped relays only). In this mode, the device shall be able to distinguish between 'real' and 'simulated' data (from a test set, for example) on the Ethernet LAN and respond appropriately.	
	Serial Communication based on EIA RS485	 The relay shall have a serial communication port based on EIA RS485, that supports the communication protocols Courier, MODBUS, IEC60870- 5-103, DNP3. 	
	Cybersecurity	 The relay shall be provided with a NERC compliant display. 	
		•Relay menu/ settings shall be in such a way that a minimum 4 levels of access shall be provided with different password controls.	
		To comply with NERC requirements of passwords: It shall be possible to program the passwords using any alpha numeric or special characters, minimum up to six characters long: Shall be possible to limit the number attempts to enter the correct	



54





SECTION VIII- CHECKLIST OF TECH. AND FINAN DOCS AND BIDDING FORMS PR NO./REF. NO. MG-A7M23-003

Item	Description	NPC Required Specifications	Supplier's Data and Statement of Compliance
		password, beyond which the password shall be blocked; It shall be possible to block the physical and logical communication interfaces; Event records shall include events related security management.	
	Time synchronization	The device shall support up to two-time synchronisation sources such as IRIG-B, IEEE 1588 and SNTP with the ability to configure the priority (main and backup) for the time sources and dynamically switch based on the availability of each of the two chosen sources: IEEE 1588 Precision Time Protocol shall be delivered according to the C37.238 power profile standard as a slave.	
	Environmental Conditions	The following norms and standards compliance shall be demonstrated. All shall be carried out at an ILAC accredited laboratory: Ambient Temperature Range: As per IEC 60255-27: 2005: Operating temperature range: Up to +55°C (or -13°F to +131°F):	
		Tested as per IEC 60068-2-1: 2007: 25°C storage (96 hours), 40°C operation (96 hours),	







SECTION VIII- CHECKLIST OF TECH AND FINAN DOCS AND BIDDING FORMS. PR NO /REF. NO. MG-A7M23-003

Item	Description	NPC Required Specifications	Supplier's Data and Statement of Compliance
		Ambient Humidity Range •As per IEC 60068-2-78: 2001: 56 days at 93% relative humidity and +40°C; •As per IEC 60068-2-30: 2005: Damp heat cyclic, six (12 + 12) hour cycles, 93% RH, +25 to +55°C.	
	Corrosive Environments	The device shall provide harsh environmental coating of printed circuit boards as standard. The coating shall be applied after printed circuit boards have been subjected to a cleaning and drying process. The environmental claims achieved shall be: •As per IFC 60068-2-42: 2003. IED 60068-2-43: 2003. Part 2. Test Ke, Method (class) 3. Industrial corrosive environment/poor environmental control, mixed gas flow test. 21 days at 75% relative humidity and +30oC exposure to elevated concentrations of H2S. (100 ppb) NO2. (200 ppb) C12 (20 ppb):	
		•As per IEC 60068-2-52 Salt mist (7 days): •As per IEC 60068-2-43 for H2S (21 days), 15 ppm;	
		•As per IEC 60068-2-42 for SO2 (21 days), 25 ppm.	
	Type Tests	The following norms and standards compliance shall be demonstrated: Insulation	







SECTION VIII- CHECKLIST OF TECH. AND FINAN DOCS AND BIDDING FORMS. PR NO./REF. NO. MG-A7M23-003

Item	Description	NPC Required Specifications	Supplier's Data and Statement of Compliance
		As per IEC 60255-27: 2005: •Insulation resistance > 100M at 500Vdc (using only electronic/brushless insulation tester). Creepage Distances and Clearances As per IEC 60255-27: 2005: •Pollution degree 3: •Overvoltage category III: •Impulse test voltage 5 kV.	
		High Voltage (Dielectric) Withstand EIA(RS)232 ports excepted. (i)As per IEC 60255-27: 2005, 2 kV rms AC, I minute: Between all case terminals connected together, and the case earth; Also, between all terminals of independent circuits: •1kV rms AC for I minute, across open watchdog contacts: •1kV rms AC for I minute, across open contacts of changeover output relays. (ii)As per ANSI/IEEE C37.90-2005: •1.0 kV rms AC for I minute, across open contacts of changeover output relays.	
		Impulse Voltage Withstand Test As per II:C 60255-27: 2005: •Front time: 1.2 μs. Time to half-value: 50 μs: •Peak value: 5 kV, 0.5J: •Between all terminals, and all terminals and case earth. Electromagnetic Compatibility	







Item	Description	NPC Required Specifications	Supplier's Data and Statement of Compliance
		(EMC)	
		The following norms and standards compliance shall be demonstrated. All shall be carried out at an accredited laboratory: 1 MHz Burst High Frequency Disturbance Test As per IEC 60255-22-1: 2008, Class III, and IEC 60255-26: 2013: •Common-mode test voltage: 2.5 kV;	
		Differential test voltage: 1.0 kV: Test duration: 2s, Source impedance: 200Ω: EIARS232 ports excepted.	
		Test As per EN61000-4-18: 2011: Level 3, 100 kHz and 1 MHz Level 4: 3 MHz, 10 MHz and 30 MHz, H-C 60255-26:2013: •Common mode test voltage: 2.5kV and 4kV: •Differential mode test voltage: 1kV.	
		Immunity to Electrostatic Discharge As per IEC 60255-22-2; 2009 Class 3 and Class 4, IEC 60255-26;2013; •15kV discharge in air to user interface, display, and exposed	







Burst Requirements

•8kV discharge in air to all communication ports. Electrical Fast Transient or

metalwork:

SECTION VIII. CHECKLIST OF TECH, AND FINAN DOCS AND BIDDING FORMS. PRINO/REF, NO. MG-A7M23-003

Item	Description	NPC Required Specifications	Supplier's Data and Statement of Compliance
		As per IEC 60255-22-4: 2008 and EN61000-4-4:2004. Test severity level III and IV, IEC 60255-26:2013: •Applied to communication inputs: Amplitude: 2 kV, burst frequency 5 kHz and 100 KHz (level 4): •Applied to power supply and all other inputs except for communication inputs: Amplitude: 4 kV, burst frequency 5 kHz and 100 KHz (level 4).	
		Surge Withstand Capability As per IEEE/ANS1 C37.90.1:2002: •4kV fast transient and 2.5kV oscillatory applied common mode and differential mode to opto inputs (filtered), output relays, and power supply: •4kV fast transient and 2.5kV oscillatory applied common mode to communications.	
		Surge Immunity Test EIA(RS)232 ports excepted. As per IEC 61000-4-5: 2005 Level 4: •Time to half-value: 1.2/50 μs; •Amplitude: 4kV between all groups and case earth: •Amplitude: 2kV between terminals of each group.	
		Immunity to Radiated Electromagnetic Energy As per HEC 60255-22-3: 2007. Class III. and HEC 60255- 26:2013:	







SECTION VIII.- CHECKLIST OF TECH, AND FINAN DOCS AND BIDDING FORMS. PR NO /REF. NO. MG-A7M23-003.

Item	Description	NPC Required Specifications	Supplier's Data and Statement of Compliance
		Frequency band 80 MHz to 3.0 GHz; Spot tests at 80, 160, 380, 450, 900, 1850, 2150 MHz; Test field strength 10 V/m; Test using AM 1 kHz @ 80%, As per HELL ANSI C37, 90.2; 2004; 80MHz to 1000MHz, zero and 100% square wave modulated; Field strength of 35V/m. Radiated Immunity from Digital Communications As per IEC 61400-4-3; 2006, Level 4; Test field strength, frequency band 800 to 960 MHz, and 1.4 to 2.0 GHz; 30 V/m. Test using AM; 1 kHz / 80%, Radiated Immunity from Digital Radio Telephones As per IEC 61000-4-3; 2006, and IEC 60253-26; 2013; 10 V/m, 900° Hz and 1.89GHz.	
		Immunity to Conducted Disturbances Induced by Radio Frequency Fields As per IEC 614:00-4-6: 2008. Level 3. •Disturbing to Avoltage: 10 V Power Frequency Magnetic Field Immunity As per IEC 614:00-4-8: 2009. Level 5: •100A/m applied continuously: •1000A/m applied for 3s. As per IEC 614:00-4-9: 2001. Level 5: •1000A/m applied in all planes. As per IEC 614:00-4-10: 2001. Level 5:	







SECTION VIII- CHECKLIST OF TECH. AND FINAN DOCS AND BIDDING FORMS PR NO./REF. NO. MG-A7M23-003

Item	Description	NPC Required Specifications	Supplier's Data and Statement of Compliance
		 100A/m applied in all planes at 100kHz/1MHz with a burst duration of 2s. 	
		Conducted Emissions As per EN 55022: 2010: Class A: •0.15 - 0.5MHz, 79dBμV (quasi peak), 66dBμV (average): •0.5 - 30MHz, 73dBμV (quasi peak), 60dBμV (average). Radiated Emissions As per EN 55022: 2010: Class A: •30 - 230MHz, 40dBμV/m at 10m measurement distance; •230 - 1GHz, 47dBμV/m at 10m measurement distance; •1 - 2 GHz, 76 dBμV/m at 10 m measurement distance. Power Frequency As per IEC 60255-22-7:2003, IEC 60255-26:2013: •300 V common-mode (Class A): •150 V differential mode (Class A).	
	EU Directives	A declaration of conformity shall evidence compliance with EU directives, and each device shall display a CE mark.	
	EMC Compliance	As per 2004/108/EC: Compliance to the European Commission Directive on EMC shall be claimed. Product specific standard EN 60255-26: 2009 shall be used to establish conformity.	
	Product Safety	As per 2006/95/EC: Compliance to the European Commission Low Voltage Directive (LVD) shall be claimed. Product specific	







SECTION VIII- CHECKLIST OF TECH. AND FINAN DOCS AND BIDDING FORMS PR NO /REF. NO. MG-A7M23-003

Item	Description	NPC Required Specifications	Supplier's Data and Statement of Compliance
		standards shall be used to establish conformity: EN 60255-27; 2005.	
	R&TTE Compliance	Radio and Telecommunications Terminal Equipment (R&TTE) directive 99/5/EC: •Compliance demonstrated by compliance to both the EMC directive and the Low voltage directive, down to zero volts. Applicable to rear communications ports.	
	Other Approvals to be demonstrated:	Underwriters Laboratory (UL) cULus compliance shall be demonstrated (Complies with Canadian and US requirements).	
	Mechanical Robustness	The following norms and standards compliance shall be demonstrated: Vibration Test As per EN 60255-21-1: 1996: •Response Class 2: •Endurance Class 2.	
		Shock and Bump As per EN 60255-21-2: 1995: •Shock response Class 2: •Shock withstand Class 1: •Bump Class 1.	
		Seismic Test As per EN 60255-21-3; 1995: •Class 2.	
	Transit Packaging Performance	The primary packaging carton shall comply with the international freight EN standard ISTA IC specification, to minimize the risk of damage in transit: •Vibration tests in 3 orientations, vibratory	

62



SECTION VIII- CHECKLIST OF TECH, AND FINAN DOCS AND BIDDING FORMS PRING/REF, NO. MG-A7M23-003

Item	Description	NPC Required Specifications	Supplier's Data and Statement of Compliance
		movement 7 Hz, amplitude 5.3 mm, acceleration 1.05g:	
		Drop tests - 10 drops from 61 cm height on multiple carton faces, edges and corners.	
	Quality	•The company's quality management system shall be accredited and independently audited to ISO 9001: 2015;	
		 Each device shall be subjected to a 24-hour heat-soak during the manufacturing process, in order to minimize the risk of early-life failures; 	
		•The vendor shall supply the actual measured Mean-Time Between Failures (MTBF) for the device upon request, based on in-service field experience:	
		 The device shall include a ten- year warranty for material and workmanship defects; 	
		•The vendor shall ofter a nominal 5-day turn-around for warranty repairs.	
		•The relay shall incorporate a rating label which is accessible and visible from the front of the relay, without needing to open any cubicle door to expose the terminal side (rear) of the relay. This label shall show the model number, serial number, month of manufacture and rating	
2	OPTICAL GROUND	details of the device.	
	WIRE (OPGW) Quantity	One span equal to: at least	
		1500m	
	Brand Name	By Supplier	







SECTION VIII- CHECKLIST OF TECH AND FINAN DOCS AND BIDDING FORMS PR NO /REF NO MG-A7M23-003

Item	Description	NPC Required Specifications	Supplier's Data and Statement of Compliance
	Model Name	By Supplier	
	Ordering Code/ Part Number	By Supplier	
		The OPGW cable shall be designed for power communication with accessories for the differential line protection.	
		2.OPGW shall be stranded by double three layers of aluminum clad steel wires (ACS) or mix ACS wires and aluminum alloy wires.	
		3.Fiber optic core: at least 24 single-mode designed for 1300 nm wavelength compliance to IEEE	
		4.Applicable voltage range: power line with voltage level of at least 145 kV	
		5.Features: a.Stable structure and high reliability b.Able to obtain second optical fiber excess-length c.Excellent resistance to distortion and side pressure d.Can withstand high mechanical stress, and easy to obtain large short-circuit current capacity.	
		6.Technical parameters: a. Standards: according to IEC, IEEE, DL/T832, GB/T 7424.4	
		 Stranding direction of outer layer; right hand (z- stranding) 	







SECTION VIII. CHECKLIST OF TECH, AND FINAN DOCS AND BIDDING FORMS PRING /REF. NO. MG-A7M23-003

Item	Description	NPC Required Specifications	Supplier's Data and Statement of Compliance
		c. Cable diameter: nominal 16.00 mm	
		d. Cable weight: typical 600 kg/km	
		e. Rate tensile strength (RTS): at least 88 kN	
		f. Modulus of elasticity: (E- modulus): at least 95 kN/mm2	
		g. Thermal elongation coefficient; nominal 17.5x10-6/°C	
		h. Permissible maximum working stress; at least 245 N/mm2	
		i. Everyday stress range: 110 - 150 N/mm2	
		j. Ultimate exceptional stress: 430 N/mm2	
		k. DC Resistance: not to exceed 0.290 Ω/km	
		L. Short time current: at least 13.5 kA, 1s	
		m. Short time current capacity 12t: at least 190 kA, 2s	
		n. Minimum bending radius/installation: 320 mm or more flexible	
		o. Minimum bending radius/operation: 240 mm or more flexible	
		p. Ration between pull and weight: 15.2 km	







SECTION VIII- CHECKLIST OF TECH. AND FINAN DOCS AND BIDDING FORMS PRING/REF NO. MG-A7M23-003

Item	Description	NPC Required Specifications	Supplier's Data and Statement of Compliance
		q. Operating temperature: Up to 80°€	
3	Industrial Grade Ethernet Switch		
	Quantity	At least 2 sets	
	Brand Name	By Supplier	
	Model Name	By Supplier	
	Ordering Code/ Part Number	By Supplier	
	Technical Specifications	1.Designed, built, and tested to function in harsh environments such as substation, hot- swappable, dual power supplies allow connectivity to primary and backup power sources.	
		With maximized flexibility by to meet different network configurations i.e. thru four small form-factor pluggable (SFP) modules to change port configurations when network designs change.	
		With simplified configuration and maintenance with a secure web interface that allows convenient setup and management.	
		 Software or through an exported settings file that can be imported later on the switch. 	
		5. With Virtual Local Area Networks (VLANs). Segregate traffic and improve network organization and performance. Take advantage of IEEE 802.1Q-2005 VLANs to separate IEC 61850 GOOSE messages from other traffic with as many as 4094 LANs.	







SECTION VIII- CHECKLIST OF TECH. AND FINAN DOCS AND BIDDING FORMS PRING/REF NO. MG-A7M23-003

Item	Description	NPC Required Specifications	Supplier's Data and Statement of Compliance
		6. Traffic Prioritization. Support critical substation messaging by classifying and prioritizing traffic into one of four priority levels through VLAN-based 802.1Q-2005 Class of Service (CoS) and IP-based DiffServ Differentiated Services Code Points (DSCP).	
		7. Rapid Spanning Tree Protocol (RSTP), Use IEEE 802.1D-2004 Rapid Spanning Tree Protocol (RSTP) to speed network recovery and convergence after a topology change caused by a link or device failure.	
		8. With Bridge Protocol Data Unit (BPDU) Guard that improve network robustness by enabling BPDU Guard to disable a port when unexpected BPDUs are received.	
		 With Port Rate Limiting that prevent network storms from disabling your network by configuring maximum allowed rates for ingress (incoming) or egress (outgoing) traffic on each port. 	
		 With Multicast MAC Filtering that filter multicast traffic to reduce network load on end devices. 	
		11. With Port-Based MAC Security. Use to limit network access to authorized devices.	
		12. Time Synchronization. Synchronize time by using network time protocol (NTP). Time-align events and user activity across your system.	





PRINO/REF. NO. MG-A7M23-003

Item	Description	NPC Required Specifications	Supplier's Data and Statement of Compliance
		13. Capable to log events for speedy alerts, consistency, compatibility, and centralized collection. Use the switch to forward Syslog system and security logs to as many as three central servers.	
		14. Dynamic Host Configuration Protocol (DHCP). Easily connect a laptop computer during initial setup by using settings that enable the front-panel 10/100BASE-T Ethernet port to function as a DHCP server.	
		15. With Increase security by taking advantage of SNMPv3 and HTTPS features. SNMPv3 provides secure network management and is interoperable with existing network management systems (NMS). An HTTPS web interface provides secure and intuitive switch management.	
		16. Capable to map system and security events to configurable alarm contact behavior for alarming through an external system, such as an existing SCADA network.	
		17. With port Mirroring to monitor ingress and egress traffic for viewing network statistics and performing troubleshooting.	
		18. With Port Monitoring port heath for link flap and frame check sequence cyclic redundancy check (CRC) errors.	







SECTION VIII- CHECKLIST OF TECH, AND FINAN DOCS AND BIDDING FORMS PRIND, REF. NO. MG-A7M23-003

Item	Description	NPC Required Specifications	Supplier's Data and Statement of Compliance
		19. Required system shall provide user accountability and separate authorization levels for configuration and maintenance. Use LDAP or RADIUS with two-factor authentication for centralized user authentication.	
		20. Use per port configuration of settings such as speed, duplex, and auto-negotiation, which facilitates connection with other devices 21. Switching method: store and	
		forward. 22. Switching latency: less than	
		7 μs	
		23. Switch labric throughput: 19.2 Gbps	
		24. Priority queues: at least 4 management systems (NMS)	
		25. Manufacturer's warranty: at least five years	
		26. Network management: HTTPS Web User interface, SNMP, settings import/export, third-party network	
		27. User-base accounts / local accounts: at least 256	
		28. Proces + speed; at least 313 MHz	
		29. Proces or memory: at least 512 MB	
		30. Ethera-ports: 1 front, at least 24 ress	
		31. Front connector: RJ 45	
		32, Standard, IEEE 802.3	







PR NO./REF. NO. MG-A7M23-003 SECTION VIII- CHECKLIST OF TECH. AND FINAN DOCS AND BIDDING FORMS Supplier's Data and NPC Required Specifications Description Statement of Compliance Item 33. Fiber ontic ports: multimode and single inde 34. Supp small form-factor pluggable (SFP) fiber -optic ports 35. Digit output: 24-250 VDC. at least 2 inply: 88-300 VDC 36. Pow /85 - 20AC, 60 Hz, AC/DC powered 37. Consu tion: not to exceed 45W for n: 3.1 kV 38. Insul standards: 39. Type a. Comu ation product 1613-2009 testing: KEMA. 61850 602255 b. EMC: metic compatibility e. Electr C 60255, IEC immuni 61000 mity: IEC 60255. d. Surge IEC 610 istand capability: e. Surge

Quantity 1 lot
Brand Name By Sup

Model Name By Sup

Ordering Code/ Part
Number

By Sup

Must be compatible to
Fiber Optic Cable of the
OPGW

Test plugs for relay

Quantity

Fiber Optic Patch Cord

testing

4



EEE C37,90.1

trength: IEC

C37.90-2005

IEC 602

f. Diele

60255.

Llot

9



SECTION VIII- CHECKLIST OF TECH. AND FINAN DOCS AND BIDDING FORMS PRING, REF. NO. MG-A7M23-003

Item	Description	NPC Required Specifications	Supplier's Data and Statement of Compliance
	Brand Name	By Supplier	
	Model Name	By Supplier	
	Ordering Code/ Part Number	By Supplier	
	Technical Description	Test switch capable of providing automatic shorting device in case of inadvertent opening of a CT circuit and allow injection of current into the relay during test conditions when test plug handle is inserted. To be installed in front of the panel.	
6	Fiber Optic Termination Box		
	Quantity	1 lot	
	Brand Name	By Supplier	
	Model Name	By Supplier	
	Ordering Code/ Part Number	By Supplier	
	Ingress Protection	IP67	
7	Wires, terminal lugs and labeler		
	Quantity	1 lot	
	Brand Name	By Supplier	
	Model Name	By Supplier	
	Ordering Code/ Part Number	By Supplier	
	Brand & Model	As per Supplier	
8	Other parts and accessories which are not specifically mentioned herein but are necessary for the proper assembly and operation of the project shall also be furnished.	YES	







NAME OF PROJECT: SUPPLY, DELIVERY, INSTALLATION & COMMISSIONING OF A7HPP TIE LINE PROT, WITH TRANSFER TRIP FUNCTION

SECTION VIII- CHECKLIST OF TECH Name of Bidder:	H. AND FINAN DOCS AND BIDDING FORMS	PR NO REF. NO. MG-A/M23-003
Signature(s) of Bidder:		 :

٥

× 4

SECTION VIII- CHECKLIST OF TECH. AND FINAN DOCS AND BIDDING FORMS

PR NO./REF, NO. MG-A7M23-003

Section VIII. Checklist of Technical and Financial Documents

Checklist of Technical and Financial Documents

TECHNICAL COMPONENT ENVELOPE[Submit in three (3) copies- one (1) marked Original with the understanding that the Pass/Fail evaluation will be based only on the copy marked "Original"]

only on the copy marked "Original"] Class "A" Documents Legal Documents Valid and Updated PhilGEPS Registration Certificate (Platinum (a) Membership) (all pages); and Technical Documents Statement of the prospective bidder of all its ongoing government and (b) 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 using NPC form NPCSF-GOODS-002 Form G; and Statement of the bidder's Single Largest Completed Contract (SLCC) similar to the contract to be bid, except under conditions provided for in Sections 23.4.1.3 and 23.4.2.4 of the 2016 revised IRR of RA No. 9184, within the relevant period as provided in the Bidding Documents using NPC form NPCSF-GOODS-003 Form Fsupported by the following documents: i. Purchase Order or Contract Proof of Payment and/or Certificate of Acceptance ii.

and

Original copy of Bid Security. If in the form of a Surety Bond, submit also a certification issued by the Insurance Commission;

<u>or</u>

Original copy of Notarized Bid Securing Declaration; and

į

section viii- checklist of tech. And finan docs and bidding forms PR No./Ref. No. Mg-A7M23-003

(e) Conformity with the Technical Specifications 1, 2 and 3 (refer to Section VII for documentary eligibility requirements), which may include production/delivery schedule, manpower requirements, and/or after-

sales/parts, if applicable; and

√ (f) 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

Financial Documents

(g) The prospective bidder's computation of Net Financial Contracting Capacity (NFCC);

<u>or</u>

A committed Line of Credit from a Universal or Commercial Bank in lieu of its NFCC computation.

Class "B" Documents

(h) If applicable, a duly signed joint venture agreement (JVA) in case the joint venture is already in existence;

<u>or</u>

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.

Other documentary requirements under RA No. 9184 (as applicable)

(i) [For foreign bidders claiming by reason of their country's extension of reciprocal rights to Filipinos] Certification from the relevant government office of their country stating that Filipinos are allowed to participate in government procurement activities for the same item or product.

SECTION VIII— CHECKLIST OF TECH. AND FINAN DOCS AND BIDDING FORMS PR NO./REF. NO. MG-A7M23-003

(j) Certification from the DTI if the Bidder claims preference as a Domestic Bidder or Domestic Entity.

II. FINANCIAL COMPONENT ENVELOPE/Submit in three (3) copies- one (1) marked Original with the understanding that the Pass/Fail evaluation will be based only on the copy marked "Original"]
 (a) Original of accomplished and duly signed (each and every page) Financial Bid Form; and

(b) Original of accomplished and duly signed (each and every page) Price Schedule(s).

BID DOCUMENTS

NAME OF PROJECT, SUPPLY, DELIVERY, INSTALLATION & COMMISSIONING OF A7HPP TIE LINE PROT. WITH TRANSFER TRIP FUNCTION

PR NO / REF. NO. MG-A7M23-003

Form G

SECTION VIII— CHECKLIST OF TECH. AND FINAN DOCS AND BIDDING FORMS NPCSF-GOODS-02

		Value of	Outstanding	Vories/ Undelivered Portion	İ							<u> </u>		
	ot yet sta	fishment		Actual										
Description:	arded but no	% of Accomplishment		Planned									Total Cost	
	ng contracts awa			a. Date Awarded b. Date Started c. Date of Completion										. I trains But multipoplom
	ıcludi	٩	١	%										
	Contracts in	Bidder's Role		Description									İ	•
	ent & Private (Nature of Work					İ					
	List of all Ongoing Government & Private Contracts including contracts awarded but not yet started siness Name			a. Owner's Name b. Address c. Telephone Nos.										
REFERENCE NO.	List of all On Business Name	Business Address :		Name of Contract/ Project cost	Congrament					FTWate				

Note: The listed attachments are no longer needed to be submitted during Bid Opening, but are required during Post qualification:
1. Notice of Award and/or Contract
2. Notice to Proceed issued by the owner
3. Certificate of Accomplishments signed by the owner or authorized

(Printed Name & Signature)	
Submitted by	Designation Date Designation Date

BID DOCUMENTS

NAME OF PROJECT: SUPPLY, DELIVERY, INSTALLATION & COMMISSIONING OF A7HPP TIE LINE PROT. WITH TRANSFER TRIP FUNCTION

PR NOJREF, NO. MG-A7M23-003 SECTION VIII-CHECKLIST OF TECH, AND FINAN DOCS AND BIDDING FORMS

Form F

50DS-03
)-SQQ(
Sao
ğ
×
\sim
ড
ß,
ķ
\sim
\geq

REFERENCE NO.					Description:	
Statement	Statement of all Government	& Private Conti	acts completed v	vhich are	t & Private Contracts completed which are similar in nature	6)
Business Name :						
Business Address :						
			Bidder's Role	41		
Name of Contract	a. Owner's Name b. Address c. Telephone Nos.	Nature of Work	Description	8	a. Amount of Award b. Amount of Completion c. Duration	a. Date Awareco b. Contract Effectivity c. Date Completed
Government				İ		
						!
				į		
Drivato						
7.11/216				!		:

Note: This statement shall be supported with:

Contract Certificate of Completion Certificate of Acceptance લંજ

(Printed Name & Signature) Submitted by

Designation

Date
This statement will show that the value of the prospective bidder's largest single completed contract, adjusted to current prices using the National Statistic Office (NSO) consumer
price indices available at the G-EPS website, and similar to the contract to be bid, must be at least fifty percent (50%) of the approved budget for the contract to be bid

-

BID DOCUMENTS NAME OF PROJECT SUPPLY, DELIVERY, INSTALLATION & COMMISSIONING OF A7HPP TIE LINE PROT. WITH TRANSFER TRIP FUNCTION SECTION VIII- CHECKLIST OF TECH. AND FINAN DOCS AND BIDDING FORMS PR NO./REF. NO. MG-A7M23-003

Form B

STATEMENT OF NFCC COMPUTATION

		Date:
THE BAC CHAIRMAN Mindanao Generation, HQ National Power Corporation Maria Cristina, Iligan City		
CONTACT/PROJECT	:	
COMPANY/FIRM ADDRESS	:	
The undersigned, duly authorized to the Bidder hereby submits this statement relation with the Application for Eligibility CURRENT ASSETS LESS: CURRENT LIABILITIES	of Net :	tative of the Applicant, for and in behalf of Financial Contracting Capacity (NFCC) in for the (Name of the Contract/Project):
NET CURRENT ASSETS Multiply by" Less: Value of On-going Contracts & Awarded contracts yet to be started	P P	15
NFCC	P	
Name of Authorized Sign	atory:	
Signature :		

APPROVED BUDGET FOR THE CONTRACT

SECTION VIII- CHECKLIST OF TECH, AND FINAN DOCS AND BIDDING FORMS

PR NOJREF, NO. MG-A7M23-003

(S A M P L E) JOINT VENTURE AGREEMENT

KNOWN ALL MEN BY THESE PRESENTS:

NAME OF PROJECT

That this JOINT VENTURE AGREEMENT is entered into by and between

(NAME OF LEAD COMPANY), represented by (NAME OF REPRESENTATIVE), of legal age, married, owner and a resident of (COMPLETE ADDRESS), appointed as the lawful attorney-in-fact and lead company to sign the contract if awarded the project.

- and -

(NAME OF THE OTHER COMPANY), represented by (NAME OF REPRESENTATIVE), of legal age, married, owner and a resident of (COMPLETE ADDRESS) represents as member/principal of the Joint Venture.

That both parties agreed to join together their manpower, equipment and resources needed to facilitate the Joint Venture to participate in the bidding and undertaking of the here-under stated project to be conducted by the NATIONAL POWER CORPORATION, (Plant/location of the project)

P	
That both parties agreed that, (NAME OF representative and/or lead of the Joint Venture; and is grand perform any and all acts necessary and/or to represent effectively and the Joint Venture may do and if per and revocation.	ranted full power and authority to do, execute sent the Joint Venture in the bidding as fully
That this Joint Venture Agreement shall remauntil terminated by both parties.	in in effect only for the above stated project
That both parties hereby bind themselves joint Corporation in the prosecution of the above-named under	ily and severally liable to the National Power ertaking.
(Signature over printed name of representative) (Designation) (Name of lead company)	(Signature over printed name of representative) (Designation) (Name of the other company)
signed in the	PRESENCE OF
<u> </u>	

BID DOCUMENTS

NAME OF PROJECT SUPPLY, DELIVERY, INSTALLATION & COMMISSIONING OF A7HPP TIE LINE PROT. WITH TRANSFER TRIP FUNCTION
SECTION VIII- CHECKLIST OF TECH, AND FINAN DOCS AND BIDDING FORMS
PRINCIPLE OF NO. MG-A7M23-003

ACKNOWLEDGMENT

REPU	BLIC OF	THE P	HILIP	PINES	3) }						
	Before	me,		,,,,,				******			*****
	All kn	own t	o me	and	known	to	be	the	same	person	
	WITNE	ESS M	, HAN	D SEA	AL on th	e dat	te an	d pla	ce state	ed above.	
Doc N	No										(NOTARY PUBLIC)
Page : Book	no,										

PR NO./REF. NO. MG-A7M23-003

FORM OF BID SECURITY (BANK GUARANTEE)

WHERI	EAS, (Name of Bidder) (hereinafter called "the Bidder" has submitted his bid Date) for the (Name of Project) (hereinafter called "the Bid").
KNOW of Com called "	ALL MEN by these presents that We (Name of Bank) the Bank" are bound unto National Power Corporation (hereinafter called "the Entity") in the (amount in words & figures as prescribed in the bidding documents) for which payment well by to be made to the said Entity the Bank binds himself, his successors and assigns by these
SEALE	D with Common Seal of the said Bank this day of 20
тне с	ONDITIONS of this obligation are that:
I)	if the Bidder withdraws his Bid during the period of bid validity specified in the Bidding documents; or
2)	if the Bidder does not accept the correction of arithmetical errors of his bid price in accordance with the instructions to Bidder; or
3)	if the Bidder, having determined as the LCB, fails or refuses to submit the required tax clearance, latest income and business tax returns and PhilGEPS registration certificate within the prescribed period; or
4)	if the Bidder having been notified of the acceptance of his bid and award of contract to him by the Entity during the period of bid validity:
	a) fails or refuses to execute the Contract; or
	b) fails or refuses to submit the required valid JVA, if applicable; or
	 fails or refuses to furnish the Performance Security in accordance with the instructions to Bidders;
withou that th	idertake to pay to the Entity up to the above amount upon receipt of his first written demand it the Entity having to substantiate its demand, provided that in his demand the Entity will not be amount claimed by it is due to the occurrence of any one or combination of the four(4 ions stated above.
by the	uarantee will remain in force up to 120 days after the opening of bids or as it may be extende Entity, notice of which extension (s) to the Bank is hereby waived. Any demand in respect ourantee should reach the Bank not later than the above date.
DATE	SIGNATURE OF THE BANK
WITN	IESSSEAL
	(Signature , Name and Address)

SECTION VIII- CHECKLIST OF TECH. AND FINAN DOCS AND BIDDING FORMS

PR NO./REF. NO. MG-A7M23-003

FORM OF BID SECURITY (SURETY BOND)

By this bond, We. (Name of Ridder) (hereinafter called "the Pri Surety) of (Name of Country of Surety) business in the Philippines (hereinafter called "the Surety") are held and fir Power Corporation (hereinafter called "the Employer") as Obligee, in the su figures as prescribed in the bidding documents), callable on demand, for the well and truly to be made, we, the said Principal and Surety bind ourse assigns, jointly and severally, firmly by these presents. SEALED with our seals and dated this day of 20	mly bound unto National m of famount in words & le payment of which sum, elves, our successors and
WHEREAS, the Principal has submitted a written Bid to the Employer of the (hereinafter	r called "the Bid").
NOW, THEREFORE, the conditions of this obligation are:	
 if the Bidder withdraws his Bid during the period of bid validity Documents; or 	specified in the Bidding
 if the Bidder docs not accept the correction of arithmetical e accordance with the Instructions to Bidder; or 	rrors of his bid price in
3) if the Bidder, having determined as the LCB, fails or refuses to clearance, latest income and business tax returns and PhilGEPs reptate prescribed period; or	o submit the required tax gistration certificate within
4) if the Bidder having been notified of the acceptance of his bid and a the Entity during the period of bid validity:	ward to contract to him by
fails or refuses to execute the Contract; or	
e) fails or refuses to submit the required valid JVA, if applica	ble; or
fails or refuses to furnish the Performance Security Instructions to bidders;	in accordance with the
then this obligation shall remain in full force and effect, otherwise it shall b	e null and void.
PROVIDED HOWEVER, that the Surety shall not be:	
a) liable for a greater sum than the specified penalty	of this bond, nor
b) liable for a greater sum that the difference betw	cen the amount of the said

Principal's Bid and the amount of the Bid that is accepted by the Employer. This Surety executing this instrument hereby agrees that its obligation shall be valid for 120 Calendar days after the deadline for submission of Bids as such deadline is stated in the instructions to Bidders

waived.

or as it may be extended by the Employer, notice of which extension (s) to the Surety is hereby

BID DOCUMENTS NAME OF PROJECT SUPPLY, DELIVERY, INSTALLATION & COMMISSIONING OF A7HPF TIE LINE PROT. WITH TRANSFER TRIP FUNCTION SECTION VIII- CHECKLIST OF TECH, AND FINAN DOCS AND BIDDING FORMS PRING/REF, NO. MG-A7M23-003

PRINCIPAL	SURETY
SIGNATURE (\$)	SIGNATURE (S)
NAME (S) AND TITLE (S)	NAME (S)
SEAT.	SEAL

SECTION VIII- CHECKLIST OF TECH, AND FINAN DOCS AND BIDDING FORMS

PR NO./REF. NO. MG-A7M29-003

Bid Securing Declaration Form

[shall be submitted with the Bid If bidder opts to provide this form of bid security]

REPUBLIC OF THE PHILIPPINES)	
CITY OF) S.S

BID SECURING DECLARATION Project Identification No.: [Insert number]

To: [Insert name and address of the Procuring Entity]

I/We, the undersigned, declare that:

- 1. I/We understand that, according to your conditions, bids must be supported by a Bid Security, which may be in the form of a Bid Securing Declaration.
- 2. I/We accept that: (a) I/we will be automatically disqualified from bidding for any procurement contract with any procuring entity for a period of two (2) years upon receipt of your Blacklisting Order; and, (b) I/we will pay the applicable fine provided under Section 6 of the Guidelines on the Use of Bid Securing Declaration, within fifteen (15) days from receipt of the written demand by the procuring entity for the commission of acts resulting to the enforcement of the bid securing declaration under Sections 23.1(b), 34.2, 40.1 and 69.1, except 69.1(f),of the IRR of RA No. 9184; without prejudice to other legal action the government may undertake.
- 3. I/We understand that this Bid Securing Declaration shall cease to be valid on the following circumstances:
 - Upon expiration of the bid validity period, or any extension thereof pursuant to your request;
 - b. I am/we are declared ineligible or post-disqualified upon receipt of your notice to such effect, and (i) I/we failed to timely file a request for reconsideration or (ii) I/we filed a waiver to avail of said right; and
 - c. I am/we are declared the bidder with the Lowest Calculated Responsive Bid, and I/we have furnished the performance security and signed the Contract.

IN WITNESS WHEREOF, I/We have hereunto set my/our hand/s this _____ day of [month] [year] at [place of execution].

[Insert NAME OF BIDDER OR ITS AUTHORIZED REPRESENTATIVE]
[Insert signatory's legal capacity]
Affiant

[Jurat]

[Format shall be based on the latest Rules on Notarial Practice].

NAME OF PROJECT SUPPLY, DELIVERY, INSTALLATION & COMMISSIONING OF ATHPP TIE LINE PROT, WITH TRANSFER TRIP FUNCTION

SECTION VIII- CHECKLIST OF TECH, AND FINAN DOCS AND BIDDING FORMS

PR NOJREF, NO. MG-A7M23-003

Omnibus Sworn Statement (Revised)

Ishall be submitted with the Bidj

REPUBLIC OF THE PHILIPPINES)	
CITY/MUNICIPALITY OF)	S.S.

AFFIDAVIT

- I, [Name of Affiant], of legal age, [Civil Status], [Nationality], and residing at [Address of Affiant], after having been duly sworn in accordance with law, do hereby depose and state that:
- 1. [Select one, delete the other:]

[If a sole proprietorship:] I am the sole proprietor or authorized representative of [Name of Bidder] with office address at [address of Bidder];

[If a partnership, corporation, cooperative, or joint venture:] I am the duly authorized and designated representative of [Name of Bidder] with office address at [address of Bidder];

[Select one, delete the other:]

[If a sole proprietorship:] As the owner and sole proprietor, or authorized representative of [Name of Bidder], I have full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for [Name of the Project] of the [Name of the Procuring Entity], as shown in the attached duly notarized Special Power of Attorney;

[If a partnership, corporation, cooperative, or joint venture:] I am granted full power and authority to do, execute and perform any and all acts necessary to participate, submit the bid, and to sign and execute the ensuing contract for [Name of the Project] of the [Name of the Procuring Entity], as shown in the attached [state title of attached document showing proof of authorization (e.g., duly notarized Secretary's Certificate, Board/Partnership Resolution, or Special Power of Attorney, whichever is applicable;)];

- 3. [Name of Bidder] is not "blacklisted" or barred from bidding by the Government of the Philippines or any of its agencies, offices, corporations, or Local Government Units, foreign government/foreign or international financing institution whose blacklisting rules have been recognized by the Government Procurement Policy Board, by itself or by relation, membership, association, affiliation, or controlling interest with another blacklisted person or entity as defined and provided for in the Uniform Guidelines on Blacklisting;
- Each of the documents submitted in satisfaction of the bidding requirements is an authentic copy of the original, complete, and all statements and information provided therein are true and correct;

NAME OF PROJECT SUPPLY, DELIVERY, INSTALLATION & COMMISSIONING OF A7HPP TIE LINE PROT. WITH TRANSFER TRIP FUNCTION

SECTION VIII— CHECKLIST OF TECH. AND FINAN DOCS AND BIDDING FORMS PRINO/REF. NO. MG-A7M23-003

- 5. [Name of Bidder] is authorizing the Head of the Procuring Entity or its duly authorized representative(s) to verify all the documents submitted;
- 6. [Select one, delete the rest:]

[If a sole proprietorship:] The owner or sole proprietor is not related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree:

[If a partnership or cooperative:] None of the officers and members of [Name of Bidder] is related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

[If a corporation or joint venture:] None of the officers, directors, and controlling stockholders of [Name of Bidder] is related to the Head of the Procuring Entity, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, the head of the Project Management Office or the end-user unit, and the project consultants by consanguinity or affinity up to the third civil degree;

- [Name of Bidder] complies with existing labor laws and standards; and
- 8. [Name of Bidder] is aware of and has undertaken the responsibilities as a Bidder in compliance with the Philippine Bidding Documents, which includes:
 - a. Carefully examining all of the Bidding Documents;
 - Acknowledging all conditions, local or otherwise, affecting the implementation of the Contract;
 - Making an estimate of the facilities available and needed for the contract to be bid, if any; and
 - Inquiring or securing Supplemental/Bid Bulletin(s) issued for the [Name of the Project].
- [Name of Bidder] did not give or pay directly or indirectly, any commission, amount, fee,
 or any form of consideration, pecuniary or otherwise, to any person or official, personnel
 or representative of the government in relation to any procurement project or activity.
- 10. In case advance payment was made or given, failure to perform or deliver any of the obligations and undertakings in the contract shall be sufficient grounds to constitute criminal liability for Swindling (Estafa) or the commission of fraud with unfaithfulness or abuse of confidence through misappropriating or converting any payment received by a person or entity under an obligation involving the duty to deliver certain goods or services, to the prejudice of the public and the government of the Philippines pursuant to Article 315 of Act No. 3815 s. 1930, as amended, or the Revised Penal Code.

BID DOCUMENTS NAME OF PROJECT SUPPLY, DELIVERY, INSTALLATION & COMMISSIONING OF A7HPP TIE LINE PROT, WITH TRANSFER TRIP FUNCTION SECTION VIII- CHECKLIST OF TECH, AND FINAN DOCS AND BIDDING FORMS PRIND/REF, NO. MG-A7M23-003

PR NOJREF, NO. MG-A7M23-003

IN WITNESS WHEREOF, I have hereunto set my hand this __ day of ___, 20__ at ____, Philippines.

> [Insert NAME OF BIDDER OR ITS AUTHORIZED REPRESENTATIVE] [Insert signatory's legal capacity] Affiant

[Jurat] [Format shall be based on the latest Rules on Notarial Practice].

PR NOJREF, NO. MG-A7M23-003

APPENDIX "1"

Bid Form for the Procurement of Goods

[shall be submitted with the Bld]

	BID FORM Date:
Project Identific	eation No. :
To: [name and	address of Procuring Entity]
Supplemental acknowledged, Goods] in configures] or the sand other bid sand of the sand of the sand sand sand sand sand sand sand sand	examined the Philippine Bidding Documents (PBDs) including the or Bid Bulletin Numbers [insert numbers], the receipt of which is hereby duly we, the undersigned, offer to [supply/deliver/perform] [description of the formity with the said PBDs for the sum of [total Bid amount in words and total calculated bid price, as evaluated and corrected for computational errors, modifications in accordance with the Price Schedules attached herewith and this Bid. The total bid price includes the cost of all taxes, such as, but not exify the applicable taxes, e.g. (i) value added tax (VAT), (ii) income tax, (iii) and (iv) other fiscal levies and duties], which are itemized herein or in the Price
If our B	iid is accepted, we undertake:
a,	to deliver the goods in accordance with the delivery schedule specified in the Schedule of Requirements of the Philippine Bidding Documents (PBDs);
b.	to provide a performance security in the form, amounts, and within the times prescribed in the PBDs;
C.	to abide by the Bid Validity Period specified in the PBDs and it shall remain binding upon us at any time before the expiration of that period.
Comm	this paragraph if Foreign-Assisted Project with the Development Partner: issions or gratuities, if any, paid or to be paid by us to agents relating to this ntract execution if we are awarded the contract, are listed below:
Name and ad ofagentCurrer	dress Amount and Purpose of neyCommission or gratuity
(If none, state	"None")]

Until a formal Contract is prepared and executed, this Bid, together with your written acceptance thereof and your Notice of Award, shall be binding upon us.

We understand that you are not bound to accept the Lowest Calculated Bid or any Bid you may receive.

BID DOCUMENTS

NAME OF PROJECT SUPPLY, DELIVERY, INSTALLATION & COMMISSIONING OF A7HPP TIE LINE PROT. WITH TRANSFER TRIP FUNCTION

SECTION VIII— CHECKLIST OF TECH. AND FINAN DOCS AND BIDDING FORMS

PRINGREP, NO. MG-A7M23-003 We certify/confirm that we comply with the eligibility requirements pursuant to the PBDs.

The undersigned is authorized to submit the bid on behalf of [name of the bidder] as evidenced by the attached [state the written authority].

We acknowledge that failure to sign each and every page of this Bid Form, including the attached Schedule of Prices, shall be a ground for the rejection of our bid.

Name;	
Legal capacity:	
Signature:	
Duly authorized to sign the Bid for and behalf of:	
Date:	

SECTION VIII- CHECKLIST OF TECH, AND FINAN DOCS AND BIDDING FORMS

PR NO./REF, NO. MG-A7M23-003

Performance Securing Declaration (Revised)

[if used as an alternative performance security but it is not required to be submitted with the Bid, as it shall be submitted within ten (10) days after receiving the Notice of Award]

REPUBLIC OF	THE PHILIPPINES)	
CITY OF) S.S

PERFORMANCE SECURING DECLARATION

Invitation to Bid: [Insert Reference Number indicated in the Bidding Documents] To; [Insert name and address of the Procuring Entity]

I/We, the undersigned, declare that:

- I/We understand that, according to your conditions, to guarantee the faithful performance by the supplier/distributor/manufacturer/contractor/consultant of its obligations under the Contract, I/we shall submit a Performance Securing Declaration within a maximum period of ten (10) calendar days from the receipt of the Notice of Award prior to the signing of the Contract.
- I/We accept that: I/we will be automatically disqualified from bidding for any
 procurement contract with any procuring entity for a period of one (1) year for the first
 offense, or two (2) years for the second offense, upon receipt of your Blackilsting
 Order if I/We have violated my/our obligations under the Contract;
- 3. I/We understand that this Performance Securing Declaration shall cease to be valid
 - a. issuance by the Procuring Entity of the Certificate of Final Acceptance, subject to the following conditions:
 - Procuring Entity has no claims filed against the contract awardee;
 - ii. It has no claims for labor and materials filed against the contractor; and
 - iii. Other terms of the contract; or
 - b. replacement by the winning bidder of the submitted PSD with a performance security in any of the prescribed forms under Section 39.2 of the 2016 revised IRR of RA No. 9184 as required by the end-user.

IN WITNESS WHEREOF, I/We have hereunto set my/our hand/s this ____ day of [month] [year] at [place of execution].

[insert NAME OF BIDDER OR ITS AUTHORIZED REPRESENTATIVE] [Insert signatory's legal capacity] Affiant

[Jurat]
[Format shall be based on the latest Rules on Notarial Practice]

BID DOCUMENTS NAME OF PROJECT SUPPLY, DELIVERY, INSTALLATION & COMMISSIONING OF A7HPP TIE LINE PROT. WITH TRANSFER TRIP FUNCTION SECTION VIII— CHECKLIST OF TECH. AND FINAN DOCS AND BIDDING FORMS PR NOJREF. NO. MG-A7M28-003

Price Schedule for Goods Offered from Abroad [shall be submitted with the Bid if bidder is offering goods from Abroad]

ame	of Bidder		_		Project	ID No	Page of		
1	2	3	4	5	6	7	8	9	
ţem	Description	Country of origin	Quantily	Unit price CIF port of entry (specify port) or CIPnamed place (specify border point or place of destination)	Total CIForCIP price per item (col. 4 x 5)	Unit Price Delivered Duty Unpaid (DDU)	Unit priceDellvere d Duty Paid (DDP)	Total Price delivered DDP (col 4 x 8)	
			<u> </u>			<u> </u>			
	-								
Vam	e;								
_ega	al Capacity	:		<u> </u>					
Sian	ature:						. <u> </u>		

BID DOCUMENTS

NAME OF PROJECT SUPPLY, DELIVERY, INSTALLATION &
COMMISSIONING OF ATHEP THE LINE PROT. WITH TRANSFER.
TRIP FUNCTION
SECTION VIII- CHECKLIST OF TECH, AND FINAN DOCS AND BIDDING FORMS
PR NOJREF, NO. MG-A7M23-003

PR NOJREF, NO. MG-A7M23-003

Price Schedule for Goods Offered from Within the Philippines

fshall be submitted with the Bid if bidder is offering goods from within the Philippines/

Nam	e of Bidde			Offered from Within the Philippines Project ID No.				Page _	_of
I	2	3	4	5	6	7	8	9	10
Item	Description	Country of origin	Quantity	Unit. price EXWp er item	Transportation and all other costs incidental to delivery, per item	Sales and other taxes payable if Contract is awarded, per item	Cost of Incidental Services, if applicable, per item	Total Price, per unit (col 5+6+7+8)	Total Price delivered Final Destination (col 9) x (col 4)

Duly authorized to sign the Bid for and behalf of: ______

SECTION VIII- CHECKLIST OF TECH, AND FINAN DOCS AND BIDDING FORMS

PR NO./REF, NO. MG-A7M23-003

Contract Agreement Form for the Procurement of Goods (Revised)
[Not required to be submitted with the Bid, but it shall be submitted within ten (10) days after receiving the
Notice of Award]

CONTRACT AGREEMENT

THIS AGREEMENT made the _____ day of _____ 20____ between [name of PROCURING ENTITY] of the Philippines (hereinafter called "the Entity") of the one part and [name of Supplier] of [city and country of Supplier] (hereinafter called "the Supplier") of the other part;

WHEREAS, the Entity invited Bids for certain goods and ancillary services, particularly [brief description of goods and services] and has accepted a Bid by the Supplier for the supply of those goods and services in the sum of [contract price in words and figures in specified currency] (hereinafter called "the Contract Price").

NOW THIS AGREEMENT WITNESSETH AS FOLLOWS:

- In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Conditions of Contract referred to.
- 2. The following documents as required by the 2016 revised Implementing Rules and Regulations of Republic Act No. 9184 shall be deemed to form and be read and construed as integral part of this Agreement, viz.:
 - Philippine Bidding Documents (PBDs);
 - i. Schedule of Requirements;
 - ii. Technical Specifications;
 - iii. General and Special Conditions of Contract; and
 - iv. Supplemental or Bid Bulletins, if any
 - Winning bidder's bid, including the Eligibility requirements, Technical and Financial Proposals, and all other documents or statements submitted;

Bid form, including all the documents/statements contained in the Bidder's bidding envelopes, as annexes, and all other documents submitted (e.g., Bidder's response to request for clarifications on the bid), including corrections to the bid, if any, resulting from the Procuring Entity's bid evaluation;

- iii. Performance Security;
- Notice of Award of Contract; and the Bidder's conforme thereto; and
- v. Other contract documents that may be required by existing laws and/or the Procuring Entity concerned in the PBDs. Winning bidder agrees that additional contract documents or information prescribed by the GPPB that are subsequently required for submission after the contract execution, such as the Notice to Proceed, Variation Orders, and Warranty Security, shall likewise form part of the Contract.
- In consideration for the sum of [totalcontract price in words and figures] or such other sums as may be ascertained, [Named of the bidder] agrees to [state the object of the contract] in accordance with his/her/its Bid.

BID DOCUMENTS

NAME OF PROJECT SUPPLY, DELIVERY, INSTALLATION &
COMMISSIONING OF A7HPP TIE LINE PROT. WITH TRANSFER
TRIP FUNCTION
SECTION VIII— CHECKLIST OF TECH. AND FINAN DOCS AND BIDDING FORMS
PR NO./REF. NO. MG-A7M23-003

The [Name of the procuring entity] agrees to pay the above-mentioned sum in accordance with the terms of the Bidding.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of the Republic of the Philippines on the day and year first above written.

[Insert Name and Signature]

[Insert Name and Signature]

1

[Insert Signatory's Legal Capacity]

for:

[Insert Signatory's Legal Capacity]

[Insert Procuring Entity]

[Insert Name of Supplier]

for:

Acknowledgment

[Format shall be based on the latest Rules on Notarial Practice]

SECTION VIII- CHECKLIST OF TECH, AND FINAN DOCS AND BIDDING FORMS

PR NOJREF, NO. MG-A7M23-003

Republic of the Philippines

y v

Government Producement Policy Board