ILOILO 1 ELECTRIC COOPERATIVE, INC.
(ILECO – 1)

Procurement of

INFRASTRUCTURE PROJECT

Supply of Labor and Materials for the Construction of Distribution Line and Installation of House Wiring for SEP 2021

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A. Invitation to Bid

Iloilo I Electric Cooperative, Inc.
(ILECO 1)
5021 Tigbauan, Iloilo, Philippines
Tel. Nos. 511-7822 to 25 Telefax 511-8852 E-mail: ogm.ileco1@gmail.com

Coverage Area: Alimodian, Oton, Cabatuan, Pavia, Guimbal, San Joaquin, Igbaras, San Miguel, Leganes, Sta. Barbara, Leon, Tigbauan, Maasin, Tubungan, Miag-ao

INVITATION TO BID NO. 2021-010

The Iloilo I Electric Cooperative, Inc. (ILECO-I) through its Bids and Awards Committee (BAC) now invites bids from interested bidders for the public bidding of hereunder contract:

Item No.	Lot No.	Brief Description	Approved Budget for the Contract (ABC) Inclusive of VAT	Non-refundable Fee for Bid Documents	Completion Period	Source of Fund
1	1	Supply of Labor and Materials for the Construction of Distribution Line and Installation of Housewiring for SEP 2021	Php 20, 235, 366.40	Php 25,000.00	Six (6) Months from receipt of NTP	2021 SEP GAA

The procurement process will be through online via zoom with the following schedule of the procurement activities:

Item No.	Availability of Documents	Pre-Bid Conference	Bid Opening
1	The Bid document is available starting October 1, 2021 until October 27, 2021, Monday to Friday from 9:00 AM to12:00 NN and 1:00 PM to 5:00 PM and October 28, 2021 from 8:00 AM to 9:30 AM.	October 11, 2021 at 10:30 AM via zoom app link will be send to bidders who have paid the bid documents fee the day before the activity	October 28, 2021 at 10:00 AM via zoom app link will be send to bidders who have paid the bid documents fee the day before the activity

Bidding documents are downloadable and free of charge at ILECO 1 website: www.ileco1.com. However, only those who have purchased the Non-Refundable Bid Documents are allowed to attend the Pre-bid Conference and submit their bid offer during the Bid Opening.

Representatives from each bidder/company must submit their notarized authorization letter one (1) day before the Pre-bid conference and Opening of Bids through email. Failure to comply the above-mentioned will automatically mean disqualification.

The submitted documents of each bidder shall be examined and checked to ascertain they are all present using a non-discretionary "pass/fail" criterion. The HOPE reserves the right to reject any and all bids, declare a failure of bidding, or not award the contract as indicated in the Section 41 of The 2016 Revised Implementing Rules and Regulations of Republic Act No. 9184, otherwise known as The Government Procurement Reform Act.

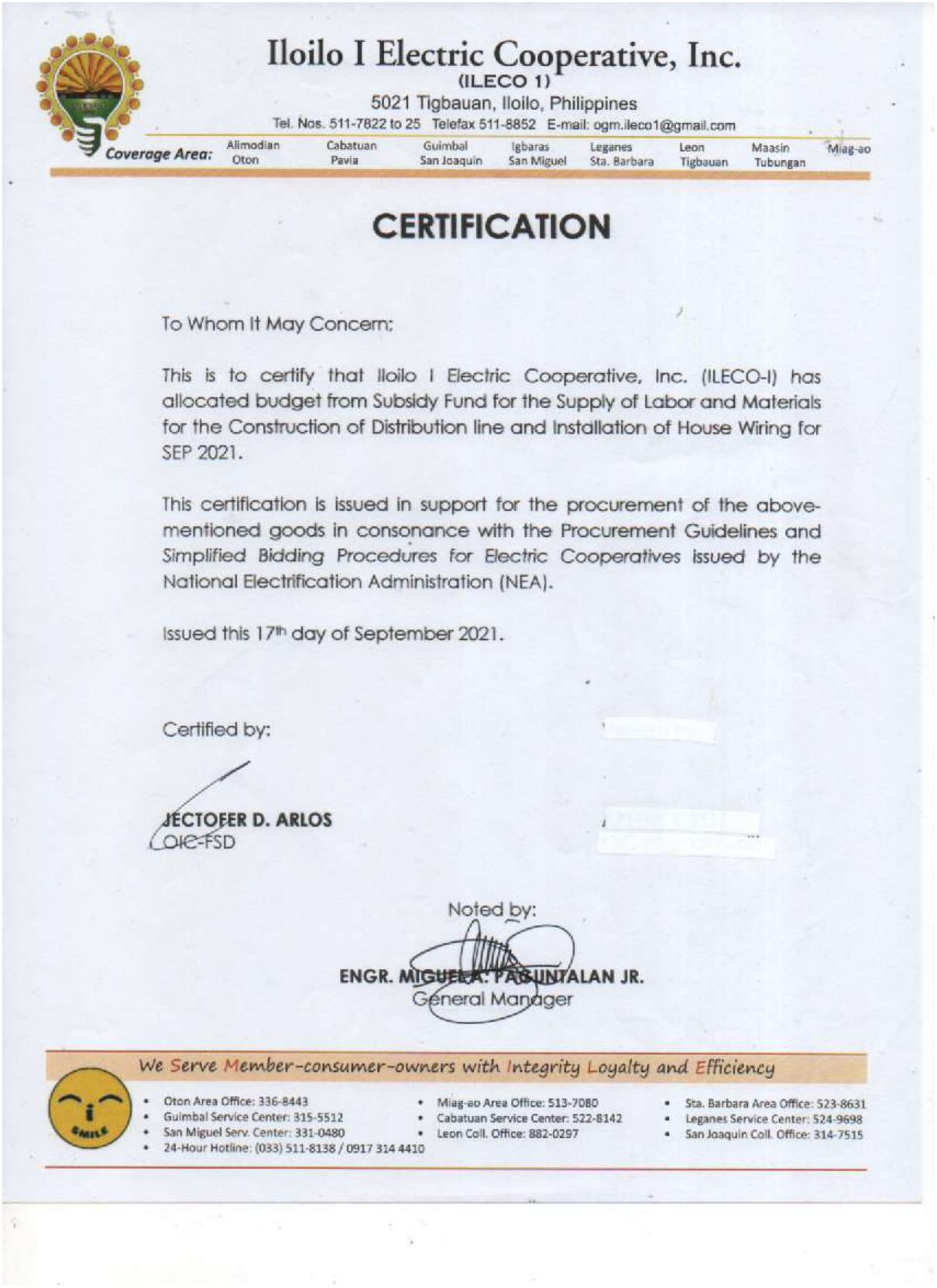
For more queries or clarification, kindly coordinate with our BAC Secretariat, **Josie T. Patricio/Lyka Rev C. Ellorquez** through their Mobile No.: 09171581388/09091312823 or you may email us at bac.ileco1@gmail.com

EVANS C. VILLANUEVA
BAC Chairperson
Iloilo I Electric Cooperative, Inc. (ILECO-I)
Namocon, Tigbauan, Iloilo
October 1, 2021

We Serve Member-consumer-owners with Integrity Loyalty and Efficiency

- Oton Area Office: 336-8443
- Guimbal Service Center: 315-5512
- San Miguel Serv. Center: 331-0480
- 24-Hour Hotline: (033) 511-8138 / 0917 314 4410
- Miag-ao Area Office: 513-7080
- Cabatuan Service Center: 522-8142
- Leon Coll. Office: 882-0297
- Sta. Barbara Area Office: 523-8631
- Leganes Service Center: 524-9698
- San Joaquin Coll. Office: 314-7515

B. Certificate of Availability of Fund



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CERTIFICATION

To Whom It May Concern:

This is to certify that Iloilo I Electric Cooperative, Inc. (ILECO-I) has allocated budget from Subsidy Fund for the Supply of Labor and Materials for the Construction of Distribution line and Installation of House Wiring for SEP 2021.

This certification is issued in support for the procurement of the above-mentioned goods in consonance with the Procurement Guidelines and Simplified Bidding Procedures for Electric Cooperatives issued by the National Electrification Administration (NEA).

Issued this 17th day of September 2021.

Certified by:

JECTOFER D. ARLOS
OIC-FSD

Noted by:

ENGR. MIGUELA. PABUNTALAN JR.
General Manager

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C. INSTRUCTION TO BIDDERS

1. SCOPE OF BID

1.1. Procuring Entity refers to the **Iloilo 1 Electric Cooperative, Inc (ILECO 1)**, invites bids for the construction of Works, as described in Section G ("Scope of Work") and H ("Technical Specifications").

1.2. The successful Bidder will be expected to complete the Works by the intended completion date specified in Special Condition of the Contract (SCC).

1.3 The ILECO 1 through the Bids and Awards Committee (BAC) invites eligible Bidders to Bids for the project *"Supply of Labor and Materials for the Construction of Distribution Line and Installation of House Wiring for SEP 2021".*

2. SOURCE OF FUNDS

The Source of Fund for this project is from the **2021 SEP General Appropriation Act (GAA) Subsidy** of the Philippine Government.

3. ELIGIBLE BIDDERS

3.1 The Bidder must have an experience of having completed a Single Largest Completed Contract (SLCC) that is similar to this Project, equivalent to at least fifty percent (50%) of the ABC adjusted. However, contractors under Small A and Small B categories without similar experience on the contract to be bid may be allowed to bid if the cost of such contract is not more than the Allowable Range of Contract Cost (ARCC) of their registration based on the guidelines as prescribed by the PCAB.

3.2 The Bidder must submit a computation of its Net Financial Contracting Capacity (NFCC), which must be at least equal to the ABC to be bid, calculated as follows:

NFCC = [(Current assets minus current liabilities) (15)] minus the value of all outstanding or uncompleted portions of the projects under ongoing contracts, including awarded contracts yet to be started coinciding with the contract for this Project.

4. BIDDER'S RESPONSIBILITIES

4.1. The Bidder or its duly authorized representative shall submit a sworn statement in the form prescribed in Form-001.

4.2. The Bidder is responsible for the following:

(a) Having taken steps to carefully examine all of the Bidding Documents;

(b) Having acknowledged all conditions, local or otherwise, affecting the implementation of the contract;

(c) Having made an estimate of the facilities available and needed for this Project, if any;

(d) Having complied with its responsibility to inquire or secure Supplemental/Bid Bulletin/s.

(e) Ensuring that it is not "blacklisted" or barred from bidding by the government or any of its agencies, offices, corporations, or LGUs, including foreign government/foreign or international financing institution whose blacklisting rules have been recognized.

(f) Ensuring that 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;

(g) Authorizing the Head of the ILECO 1 or its duly authorized representative/s to verify all the documents submitted;

(h) Ensuring that the signatory is the duly authorized representative of the Bidder, and granted full power and authority to do, execute and perform any and all acts necessary and/or to represent the Bidder in the bidding, with the duly notarized Secretary's Certificate attesting to such fact, if the Bidder is a corporation, partnership, cooperative, or joint venture;

(i) Complying with existing labor laws and standards, if applicable. Failure to observe any of the above responsibilities shall be at the risk of the Bidder concerned.

(j) Complying with existing labor laws and standards, in the case of procurement of services. Moreover, bidder undertakes to:

(i) Ensure the entitlement of workers to wages, hours of work, safety and health and other prevailing conditions of work as established by national laws, rules and regulations; or collective bargaining agreement; or arbitration award, if and when applicable. In case there is a finding by the Iloilo 1 Electric Cooperative, Inc. (ILECO-1) or the DOLE of underpayment or non-payment of workers' wage and wage-related benefits, bidder agrees that the performance security or portion of the contract amount shall be withheld in favor of the complaining workers pursuant to appropriate provisions of Republic Act No. 9184 without prejudice to the institution of appropriate actions under the Labor Code, as amended, and other social legislations.

(ii) Comply with occupational safety and health standards and to correct deficiencies, if any. In case of imminent danger, injury or death of the worker, bidder undertakes to suspend contract implementation pending clearance to proceed from the DOLE Regional Office and to comply with Work Stoppage Order; and

(iii) Inform the workers of their conditions of work, labor clauses under the contract specifying wages, hours of work and other benefits under prevailing national laws, rules and regulations; or collective bargaining agreement; or arbitration award, if and when applicable, through posting in two (2) conspicuous places in the establishment's premises; and (k) Ensuring that it 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.

4.3. It shall be the sole responsibility of the prospective bidder to determine and to satisfy itself by such means as it considers necessary or desirable as to all matters pertaining to this Project, including:

(a) the location and the nature of the contract, project, or work;
(b) climatic conditions;
(c) transportation facilities;
(d) nature and condition of the terrain, geological conditions at the site communication facilities, requirements, location and availability of construction aggregates and other materials, labor, water, electric power and access roads; and
(e) other factors that may affect the cost, duration and execution or implementation of the contract, project, or work.

4.4. The ILECO 1 shall not assume any responsibility regarding erroneous interpretations or conclusions by the Bidder out of the data furnished by the ILECO 1.

4.5. Before submitting their bids, the Bidders are deemed to have become familiar with all existing laws, decrees, ordinances, acts and regulations of the government which may affect the contract in any way.

4.6. The Bidder shall bear all costs associated with the preparation and submission of his bid, and the ILECO 1 will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

4.7. Bidders should note that the ILECO 1 will only accept bids only from those that have paid the non-refundable fee for the Bidding Documents at the office indicated in the Invitation to Bid.

5. CONTENTS OF BIDDING DOCUMENTS

5.1. PRE-BID CONFERENCE

5.1.1. If so specified in the invitation to bid, a pre-bid conference shall be held at the venue and on the date indicated therein, to clarify and address the Bidders' questions on the technical and financial components of this Project.

5.1.2. Bidders are encouraged to attend the pre-bid conference to ensure that they fully understand the ILECO 1's requirements. Non-attendance of the Bidders will in no way prejudice its bid; however, the Bidder is expected to know the changes and/or amendments to the Bidding Documents discussed during the pre-bid conference.

5.1.3. Any statement made at the pre-bid conference shall not modify the terms of the Bidding Documents unless such statement is specifically identified in writing as an amendment thereto and issued as a Supplemental/Bid Bulletin.

5.2. CLARIFICATIONS AND AMENDMENTS TO BIDDING DOCUMENTS

5.2.1. Bidders who have purchased the Bidding Documents may request for clarifications on any part of the Bidding Documents for an interpretation. Such a request must be in writing and submitted to the ILECO 1 at the address indicated in the Invitation to bid at least ten (10) calendar days before the deadline set for the submission and receipt of bids.

5.2.2. Supplemental/Bid Bulletins may be issued upon the ILECO 1's initiative for purposes of clarifying or modifying any provision of the Bidding Documents not later than seven (7) calendar days before the deadline for the submission and receipt of bids. Any modification to the Bidding Documents shall be identified as an amendment.

5.2.3. Any Supplemental/Bid Bulletin issued by the BAC shall be provided to the bidders within five (5) Calendar Days from Pre-Bid Conference. It shall be the responsibility of all Bidders who secure the Bidding Documents to inquire and secure Supplemental/Bid Bulletins that may be issued by the BAC.

6. DOCUMENTS COMPRISING THE BIDS

6.1 Online Submission of Bids shall follow the **online bidding submission and receipt of bids instruction manual** attached as Annex "A".

6.2 Bidder's submission of hard copy of the bidding documents shall be sent via courier the day before the opening of bids and will submit proof of receipt from the courier company to bac.ileco1@gmail.com.

6.3 Bidders shall submit the hard copy of their bids in one (1) mother envelope that contains two (2) separate envelopes. First envelope (Envelope 1) should contain the following folders **(1 Original and 1 Photocopy)**:

Eligibility Requirements (Envelope 1)

Folder 1 - Legal Documents

1. DTI Business name registration/SEC registration certificate, whichever is appropriate under laws of the Philippines;
2. Valid and current Mayor's permit/municipal license; (principal place of business)
3. BIR Value Added Tax Registration;
4. Omnibus Sworn Statement-Affidavit;
5. Compliance with E.O #398
   a. Proof of VAT payments for the past six months **(March 2021 to August 2021)**;
   b. Tax clearance from the BIR to prove bidder's full and timely payment of taxes to the government;
   c. A certification under oath from the bidder's responsible officers that the bidder is free and clear of all liabilities with the government;
6. Duly signed and Notarized Instructions to Bidders **(From Page 5-21)**

Folder 2 - Technical Documents

1. Statement in matrix form **(Form-007)** all ongoing and completed government and private contracts (service contracts, maintenance contracts, purchase orders, job orders, etc.) within the relevant period, where applicable, including contracts awarded but not yet started, if any. The statement shall state whether each contract is:

    a. Ongoing, Completed or Awarded but not yet started; within the relevant period, where applicable. Each contract should include the following:
        i. The name of the contract;
        ii. Date of contract;
        iii. Amount of contract and value of outstanding contracts;
        iv. Date of delivery;
        v. End-user's acceptance, if completed

    b. Statement identifying the bidder's Single Largest Completed Contract (SLCC) similar to the contract to be bid within the relevant period as provided in the bidding documents. **(Form-008)**

2. PCAB License (Philippine Contractors Accreditation Board) for Infrastructure Projects. The PCAB should be of Category A for **General Engineering**

Folder 3 - Financial Documents

1. Complete set of audited financial statements, stamped "received" by the BIR or for the preceding calendar year which should not be earlier than 2 years from the date of bid submission.
   Complete set of financial statement includes the following:

        1.) Balance Sheet
        2.) Income Statement
        3.) Statement of Changes in Equity
        4.) Cash Flow Statement
        5.) Notes to Financial Statement
        6.) Statement of Management Responsibility for Financial Statement

2. The prospective bidder's computation for its Net Financial Contracting Capacity (NFCC) should be equal or more than the ABC, or a commitment from a universal or commercial bank to extend to it a credit line if awarded the contract to be bid, in an amount not lower than the amount set by the ILECO 1, which shall be at least equal to ten percent (10%) of the Approved Budget for the Contract (ABC) to be bid.

Folder 4 - Class "B" Documents

Valid joint venture agreement, in case of a joint venture. Each member of the joint venture shall submit the required eligibility documents; and

Bid Proposals (Envelope 2)

Folder 1 - Technical Proposal

1.Bid Security as to form, amount and validity period (2% of the ABC)
2.Confirming on the Detailed Technical Specifications **(Form- 002)**
3.Confirming Statement on Completion Schedule **(Form-005)**
4.Confirming Statement on Warranty of being offered **(Form-006)**
5.Duly signed Statement of Availability of Key Personnel and Equipment **(Form-009)**
6.Proofs of Ownership / Lease Agreements of Contractor's Pledged Equipment. **(Form-010)**
7.Confirming Statement of Availability of Materials **(Form-011)**

Folder 2 - Financial Proposal

1. Bid Form which includes Bid Price in the prescribed bid form **(Form-001) attached with a detailed computation or Bill of Materials.**

6.2. Each document should be placed in a separate folder with **corresponding label**. The Prospective Bidders will be checked as to their eligibility by the completeness of their submitted requirements using the non-discretionary "pass/fail" criteria.

6.3. The second envelope will not be opened if the requirements for the first envelope (Envelope 1) were not complied.

6.4. Online submission of documents is described or cleared Instructed at ITB Clause No. 24

7. BID PRICES

7.1. The contract shall be for the whole Works, based on the priced Bill of Quantities submitted by the Bidder.

7.2. The Bidder shall fill in rates and prices for all items of the Works described in the Bill of Quantities. Bids not addressing or providing all of the required items in the Bidding Documents including, where applicable, Bill of Quantities, shall be considered non-responsive and, thus, automatically disqualified. In this regard, where a required item is provided, but no price is indicated, the same shall be considered as non-responsive, but specifying a zero (0) or a dash (-) for the said item would mean that it is being offered for free to the ILECO 1, except those required by law or regulations to be provided for.

7.3. All duties, taxes, and other levies payable by the Contractor under the Contract, or for any other cause, prior to the deadline for submission of bids, shall be included in the rates, prices, and total bid price submitted by the Bidder.

7.4. All bid prices for the given scope of work in the contract as awarded shall be considered as fixed prices, and therefore not subject to price escalation during contract implementation, except under extraordinary circumstances. Upon the recommendation of the ILECO 1, price escalation may be allowed in extraordinary circumstances as may be determined by the National Economic and Development Authority in accordance with the Civil Code of the Philippines, and upon approval by the HOPE. Furthermore, in cases where the cost of the awarded contract is affected by any applicable new laws, ordinances, or regulations,

promulgated after the date of bid opening, a contract price adjustment shall be made or appropriate relief shall be applied on a no loss-no.

8. BID VALIDITY

8.1. Bids shall remain valid for the period specified in the Bid Data Sheet (BDS) which shall not exceed one hundred twenty (120) calendar days from the date of the opening of bids.

8.2. In exceptional circumstances, prior to the expiration of the bid validity period, the ILECO 1 may request Bidders to extend the period of validity of their bids. The request and the responses shall be made in writing. The bid security described in ITB Clause 9 should also be extended corresponding to, at least, the extension of the bid validity period. A Bidders may refuse the request without forfeiting its bid security, but his bid shall no longer be considered for further evaluation and award. A Bidder granting the request shall not be required or permitted to modify its bid.

9. BID SECURITY

9.1. The bid security, issued in favor of the ILECO 1, in the amount equal to the percentage stated herein of the ABC in accordance with the following forms:

Form of Bid Security	Amount of Bid Security (Equal to Percentage of the ABC)
a) Cash or cashier's/manager's check issued by a Universal or Commercial Bank.	Two percent (2%)
b) Bank draft/guarantee or irrevocable letter of credit issued by a Universal or Commercial Bank: Provided, however, that it shall be confirmed or authenticated by a Universal or Commercial Bank, if issued by a foreign bank.	
(c) Surety bond callable upon demand issued by a surety or insurance company duly certified by the Insurance Commission as authorized to issue such security; and/or	Five percent (5%)

9.2. The bid security should be valid for the period specified in the Clause 8.1. Any bid not accompanied by an acceptable bid security shall be rejected by the ILECO 1 as non-responsive.

9.3. No bid securities shall be returned to the Bidders after the opening of bids and before contract signing, except to those that failed or declared as post-disqualified, upon submission of a written waiver of their right to file a motion for reconsideration and/or protest. Without prejudice on its forfeiture, bid securities shall be returned only after the bidder with the Lowest Calculated and Responsive Bid has signed the contract and furnished the performance security, but in no case later than the expiration of the bid security validity period indicated in ITB Clause 8.

9.4. Upon signing and execution of the contract pursuant to ITB Clause 21, and the posting of the performance security pursuant to ITB Clause 22, the Bidder's bid security will be discharged, but in no case later than the bid security validity period as indicated in ITB Clause 8.

9.5. The bid security may be forfeited:

(a) if a Bidder:

(iii) has a finding against the veracity of the required documents submitted.

(iv) submission of eligibility requirements containing false information or falsified documents;

(v) submission of bids that contain false information or falsified documents, or the concealment of such information in the bids in order to influence the outcome of eligibility screening or any other stage of the public bidding;

(vi) allowing the use of one's name, or using the name of another for purposes of public bidding;

(vii) withdrawal of a bid, or refusal to accept an award, or enter into contract with the ILECO 1 without justifiable cause, after the Bidder had been adjudged as having submitted the LCRB;

(viii) refusal or failure to post the required performance security within the prescribed time;

(ix) refusal to clarify or validate in writing its bid during post qualification within a period of seven (7) calendar days from receipt of the request for clarification;

(x) any documented attempt by a Bidder to unduly influence the outcome of the bidding in his favor;

(xi) failure of the potential joint venture partners to enter into the joint venture after the bid is declared successful; or

(xii) all other acts that tend to defeat the purpose of the competitive bidding, such as habitually withdrawing from bidding, submitting late Bids or patently insufficient bid, for at least three (3) times within a year, except for valid reasons.

(b) if the successful Bidders:

(i) fails to sign the contract in accordance with ITB Clause 21;
(ii) fails to furnish performance security in accordance with ITB Clause 22;

9.6. The Bidders must post a Bid Security in the form stated in ITB Clause 9.1 or may deposit directly to ILECO-I account, RCBC Savings Account, Jalandoni Branch, Iloilo I Electric Cooperative, Inc., Account # 7590534077, wherein the deposit slip must be emailed through bac.ileco1@gmail.com, **two (2) days before the opening of bids for verification of the deposit.** The validity period is 120 calendar days from opening of Bids.

10. FORMAT OF SIGNING BIDS

10.1. Forms as mentioned in ITB Clause 6 must be completed without any alterations to their format, and no substitute form shall be accepted. All blank spaces shall be filled in with the information requested.

10.2. The Bidders shall prepare an original of the first and second envelopes as described in ITB Clauses 6. In addition, the Bidders shall submit copies of the first and second envelopes. In the event of any discrepancy between the original and the copies, the original shall prevail.

10.3. The bid, except for unamended printed literature, shall be signed, and each and every page thereof shall be initialed, by the duly authorized representative/s of the Bidders.

10.4. Any interlineations, erasures, or overwriting shall be valid only if they are signed or initialed by the duly authorized representative/s of the Bidders.

11. SEALING AND MARKINGS OF BIDS

11.1. The Bidders shall enclose their original technical proposal described in ITB Clause 10, in one sealed envelope marked "ORIGINAL - TECHNICAL PROPOSAL", and the original of their financial proposal in another sealed envelope marked "ORIGINAL - FINANCIAL PROPOSAL", sealing them all in an outer envelope marked "ORIGINAL BID".

11.2. Each copy of the first and second envelopes shall be similarly sealed duly marking the inner envelopes as "COPY NO.1" - TECHNICAL PROPOSAL" and "COPY NO. 1" – FINANCIAL PROPOSAL" and the outer envelope as "COPY NO. 1", respectively. These envelopes containing the original and the copies shall then be enclosed in one single envelope.

11.3. All envelopes shall:

(a) contain the name of the contract to be bid in capital letters;
(b) bear the name and address of the Bidders in capital letters;
(c) be addressed to the ILECO 1's BAC.
(d) bear a warning "DO NOT OPEN BEFORE…" the date and time for the opening of bids.

11.4. If bids are not sealed and marked as required, the ILECO 1 will assume no responsibility for the misplacement or premature opening of the bid.

12. DEADLINE FOR SUBMISSION OF BIDS

12.1 Deadline for Submission of Bids

Bids must be received by the ILECO 1's BAC at the address and on the opening of bids schedule stated in the Invitation to Bid.

13. LATE BIDS

13.1 Any bid submitted after the deadline for submission and receipt of bids prescribed by the ILECO 1, pursuant to ITB Clause 12, shall be declared "Late" and shall not be accepted by the ILECO 1.

14. OPENING AND PRELIMINARY EXAMINATION OF BIDS

14.1. The BAC shall open the Bids in public on the specified scheduled opening of bids and in case the Bids cannot be opened as scheduled due to justifiable reasons, the BAC shall reschedule the opening of Bids and shall issue a Notice of Postponement to be posted in the website of the ILECO 1 concerned.

14.2. The BAC shall open the first bid envelopes and determine each Bidder's compliance with the documents using a non-discretionary "pass/fail" criterion. If a Bidder submits the required document, it shall be rated "passed" for that particular requirement. In this regard, bids that fail to include any requirement or are incomplete or patently insufficient shall be considered as "failed". Otherwise, the BAC shall rate the said first bid envelope as "passed".

14.3. Immediately after determining compliance with the requirements in the first envelope, the BAC shall forthwith open the second bid envelope of each remaining eligible Bidder whose first bid envelope was rated "passed." The second envelope of each complying Bidder shall be opened within the same day. In case one or more of the requirements in the second envelope of a particular bid is missing, incomplete or patently insufficient, and/or if the submitted total bid price exceeds the ABC, the BAC shall rate the bid concerned as "failed." Only bids that are determined to contain all the bid requirements for both components shall be rated "passed" and shall immediately be considered for evaluation or subject for Post Qualification.

14.4. The ILECO 1 shall prepare the minutes of the proceedings of the bid opening that shall include, as a minimum: (a) names of Bidders, their bid price (per lot, if applicable, and/or including discount, if any), bid security, findings of preliminary examination, and whether there is a withdrawal or modification; and (b) attendance sheet. The BAC members shall sign the abstract of bids as read.

14.5. The Bidders or their duly authorized representatives may attend the opening of bids. The BAC shall ensure the integrity, security, and confidentiality of all submitted bids. The Abstract of Bids as read and the minutes of the Bid Opening shall be made available to the public upon written request.

15. PROCESS TO BE CONFIDENTIAL

15.1. Members of the BAC, including its staff and personnel, as well as its Secretariat and TWG, are prohibited from making or accepting any kind of communication with any Bidder regarding the evaluation of their bids until the issuance of the Notice of Award.

15.2. Any effort by a Bidder to influence the ILECO 1 in the ILECO 1's decision in respect of bid evaluation, bid comparison or contract award will result in the rejection of the Bidder's bid.

16. CLARIFICATION OF BIDS

To assist in the evaluation, comparison and post-qualification of the bids, the ILECO 1 may ask in writing any Bidder for a clarification of its bid. All responses to requests for clarification shall be in writing. Any clarification submitted by a Bidder in respect to its bid and that is not in response to a request by the ILECO 1 shall not be considered

17. DETAILED EVALUATION AND COMPARISON OF BIDS

17.1. The ILECO 1 will undertake the detailed evaluation and comparison of Bids which have passed the opening and preliminary examination of Bids in order to determine the Lowest Calculated Bid.

17.2. The Lowest Calculated Bid shall be determined in two steps:

(a) The detailed evaluation of the financial component of the bids, to establish the correct calculated prices of the bids; and

(b) The ranking of the total bid prices as so calculated from the lowest to highest. The bid with the lowest price shall be identified as the Lowest Calculated Bid.

17.3. The ILECO 1's BAC shall immediately conduct a detailed evaluation of all bids rated "passed," using non-discretionary "pass/fail" criterion. The BAC shall consider the following in the evaluation of bids:

(a) Completeness of the bid. Unless the BDS allows partial bids, bids not addressing or providing all of the required items in the Schedule of Requirements including, where applicable, bill of quantities, shall be considered non-responsive and, thus, automatically disqualified. In this regard, where a required item is provided, but no price is indicated, the same shall be considered as non-responsive, but specifying a zero (0) or a dash (-) for the said item would mean that it is being offered for free to the ILECO 1,

(b) Arithmetical corrections. Consider computational errors and omissions to enable proper comparison of all eligible bids. It may also consider bid modifications. Any adjustment shall be calculated in monetary terms to determine the calculated prices.

17.4. Based on the detailed evaluation of bids, those that comply with the abovementioned requirements shall be ranked in the ascending order of their total calculated bid prices, as evaluated and corrected for computational errors, discounts and other modifications, to identify the Lowest Calculated Bid. Total calculated bid prices, as evaluated and corrected for computational errors, discounts and other modifications, which exceed the ABC shall not be considered.

17.5. The ILECO 1's evaluation of bids shall be based on the bid price quoted in the Bid Form, which includes the Bill of Quantities.

17.6. Bids shall be evaluated on an equal footing to ensure fair competition. For this purpose, all Bidders shall be required to include in their bids the cost of all taxes, such as, but not limited to, value added tax (VAT), income tax, local taxes, and other fiscal levies and duties which shall be itemized in the bid form and reflected in the detailed estimates. Such bids, including said taxes, shall be the basis for bid evaluation and comparison.

17.7. Bids are being invited for individual lots or for any combination thereof, provided that all Bids and combinations of Bids shall be received by the same deadline and opened and evaluated simultaneously so as to determine the bid or combination of bids offering the lowest calculated cost to the ILECO 1. Bid prices quoted shall correspond to all of the requirements specified for each lot. Bid Security as required shall be submitted for each contract (lot) separately.

18. POST QUALIFICATION

18.1. The BAC shall determine to its satisfaction whether the Bidder that is evaluated as having submitted the **Lowest Calculated Bid** complies with and is responsive to all the requirements and conditions specified herein.

18.2. Failure to submit any of the post-qualification requirements on time, or a finding against the veracity thereof, shall disqualify the Bidder for award. Provided in the event that a finding against the veracity of any of the documents submitted is made, it shall cause the forfeiture of the bid security.

18.4. If the BAC determines that the Bidder with the Lowest Calculated Bid passes all the criteria for post-qualification, it shall declare the said bid as the LCRB, and recommend to the HOPE the award of contract to the said Bidder at its submitted price or its calculated bid price, whichever is lower.

18.5. A negative determination shall result in rejection of the Bidder's bid, in which event the ILECO 1 shall proceed to the next Lowest Calculated Bid, with a fresh period to make a similar determination of that Bidder's capabilities to perform satisfactorily. If the second Bidder, however, fails the post qualification, the procedure for post qualification shall be repeated for the Bidder with the next Lowest Calculated Bid, and so on until the LCRB is determined for recommendation of contract award.

18.6. Within a period not exceeding fifteen (15) calendar days from the determination by the BAC of the LCRB and the recommendation to award the contract, the HOPE or his duly authorized representative shall approve or disapprove the said recommendation.

18.7. In the event of disapproval, which shall be based on valid, reasonable, and justifiable grounds as provided for under Section 41 of the IRR of RA 9184, the HOPE shall notify the BAC and the Bidder in writing of such decision and the grounds for it. When applicable, the BAC shall conduct a post qualification of the Bidder with the next Lowest Calculated Bid. A request for reconsideration may be filed by the Bidder with the HOPE.

19. RESERVATION CLAUSE

19.1. Notwithstanding the eligibility or post-qualification of a Bidder, the ILECO 1 concerned reserves the right to review its qualifications at any stage of the procurement process if it has reasonable grounds to believe that a misrepresentation has been made by the said Bidder, or that there has been a change in the Bidder's capability to undertake the project from the time it submitted its eligibility requirements. Should such review uncover any misrepresentation made in the eligibility and bidding requirements, statements or documents, or any changes in the situation of the Bidder which will affect its capability to undertake the project so that it fails the preset eligibility or bid evaluation criteria, the ILECO 1 shall consider the said Bidder as ineligible and shall disqualify it from submitting a bid or from obtaining an award or contract.

19.2. Based on the following grounds, the ILECO 1 reserves the right to reject any and all Bids, declare a Failure of Bidding at any time prior to the contract award, or not to award the contract, without thereby incurring any liability, and make no assurance that a contract shall be entered into as a result of the bidding:

(a) If there is prima facie evidence of collusion between appropriate public officers or employees of the ILECO 1, or between the BAC and any of the Bidders, or if the collusion is between or among the Bidders themselves, or between a Bidder and a third party, including any act which restricts, suppresses or nullifies or tends to restrict, suppress or nullify competition;

(b) If the ILECO 1's BAC is found to have failed in following the prescribed bidding procedures; or

(c) For any justifiable and reasonable ground where the award of the contract will not redound to the benefit of ILECO – I as follows:

(i) If the physical and economic conditions have significantly changed so as to render the project no longer economically, financially or technically feasible as determined by the HOPE;

(ii) If the project is no longer necessary as determined by the HOPE; and

(iii) If the source of funds for the project has been withheld or reduced through no fault of the ILECO 1.

19.3. In addition, the ILECO 1 may likewise declare a failure of bidding when:

(a) No bids are received;

(b) All prospective Bidders are declared ineligible;

(c) All bids fail to comply with all the bid requirements, fail post qualification; or

(d) The Bidder with the LCRB refuses, without justifiable cause, to accept the award of contract.

20. CONTRACT AWARD

20.1. Subject to ITB Clause 18, the HOPE or its duly authorized representative shall award the contract to the Bidder whose bid has been determined to be the LCRB.

20.2. Prior to the expiration of the period of bid validity, the ILECO 1 shall notify the successful Bidder in writing that its bid has been accepted, through a Notice of Award duly received by the Bidder or its representative personally or by registered mail or electronically, receipt of which must be confirmed in writing within two (2) days by the Bidder with the LCRB and submitted personally or sent by registered mail or electronically to the ILECO 1.

20.3. Notwithstanding the issuance of the Notice of Award, award of contract shall be subject to the following conditions:

(a) Posting of the performance security in accordance with ITB Clause 22;

(b) Signing of the contract as provided in ITB Clause 21; and

(c) Approval by higher authority or by HOPE.

21. SIGNING OF THE CONTRACT

21.1. At the same time as the ILECO 1 notifies the successful Bidder that its bid has been accepted, the ILECO 1 shall send the Contract Form to the Bidder, which Contract has been provided in the Bidding Documents, incorporating therein all agreements between the parties.

21.2. Within **five (5) calendar days** from receipt of the Notice of Award, the successful Bidder shall post the required performance security.

21.3. The ILECO 1 shall enter into contract with the successful Bidder within the **ten (10) calendar day** period and shall sign and date the contract and return it to the ILECO 1 provided that all the documentary requirements are complied with.

21.4. The following documents shall form part of the contract:

(a) Contract Agreement;
(b) Bidding Documents;
(c) Winning Bidder's bid, including the Technical and Financial Proposals, and all other documents/statements submitted (e.g., Bidder's response to request for clarifications on the bid), including corrections to the bid, if any, resulting from the ILECO 1's bid evaluation;
(d) Performance Security;
(e) Notice of Award of Contract; and
(f) S-Curve or Program of Works
(g) Other contract documents that may be required.

22. PERFORMANCE SECURITY

22.1. To guarantee the faithful performance by the winning Bidder of its obligations under the contract, it shall post a performance security within a maximum period of **five (5) calendar days** from the receipt of the Notice of Award from the ILECO 1 and in no case later than the signing of the contract.

22.2. The Performance Security shall be denominated in Philippine Pesos and posted in favor of the ILECO 1 in an amount not less than the percentage of the total contract price in accordance with the following schedule:

Form of Performance Security	Amount of Performance Security (Equal to Percentage of the ABC)
a) Cash or cashier's/manager's check issued by a Universal or Commercial Bank.	Ten percent (10%)
b) Bank draft/guarantee or irrevocable letter of credit issued by a Universal or Commercial Bank: Provided, however, that it shall be confirmed or authenticated by a Universal or Commercial Bank, if issued by a foreign bank.	
(c) Surety bond callable upon demand issued by a surety or insurance company duly certified by the Insurance Commission as authorized	Thirty percent (30%)

22.3. Failure of the successful Bidder to comply with the above-mentioned requirement **within the specified period stated in ITB Clause 22.1** shall constitute sufficient ground for **the annulment of the award and forfeiture of the bid security**, in which event the ILECO 1 shall have a fresh period to initiate and complete the post qualification of the second Lowest Calculated Bid. The procedure shall be repeated until LCRB is identified and selected for recommendation of contract award. However, if no Bidder passed post-qualification, the BAC shall declare the bidding a failure and conduct a re-bidding with re-advertisement, if necessary.

23. NOTICE TO PROCEED

Within seven (7) calendar days from the date of approval of the Contract by the appropriate authority, the ILECO 1 shall issue the Notice to Proceed (NTP) together with a copy or copies of the approved contract to the successful Bidder. All notices called for by the terms of the contract shall be effective only at the time of receipt thereof by the successful Bidder.

D. BID DATA SHEET

<table>
<tr><td>1.1</td><td>The Procuring Entity is Iloilo 1 Electric Cooperative, Inc. (ILECO-1)</td></tr>
<tr><td>1.3</td><td>The name of the Contract is <u>“Supply of Labor and Materials for the Construction of Distribution Line and Installation of House Wiring for SEP 2021”</u></td></tr>
<tr><td>4.3</td><td>Provide the interested bidder time to conduct line survey prior to submission of their bids. The schedule

Line survey schedule will be set/finalize during the Pre-bid conference.</td></tr>
<tr><td>5.1</td><td>The ILECO 1 will hold a Pre-Bid Conference for this project on:

October 11, 2021 at 10:30 AM
via zoom app. link will be send to bidders who have paid the bid documents fee the day before the activity</td></tr>
<tr><td>6.1</td><td><u>Single Largest Completed Contract (SLCC)</u>

The bidders must have an experience of having completed at least one (1) contract that is similar to the contract to be bid, and whose value, adjusted to current prices using the NEA Price Indices (NPI), must be at least <u>fifty percent (50%) of the Approved Budget for the contract</u>.

Adjusted contract price must be supported by the bidder’s computation.

The relevant period for the SLCC for this project is from <u>five (5) years</u> before the opening of bids.

For this purpose, similar contracts shall refer to Construction of Electrical Lines.</td></tr>
<tr><td></td><td>The bidder shall submit the following documents as part of the Technical Proposal:

1. List of Contractors Personnel to be assigned to the contract to be bid with their respective curriculum vitae showing among others their educational attainment, professional qualification and experiences.

The minimum work experience requirements for key personnel are the following:
<table>
<tr><th>Key Personnel</th><th>Quantity</th><th>Minimum Years of Relevant Experience</th></tr>
<tr><td>Project Licensed Electrical Engineer</td><td>1</td><td>5</td></tr>
<tr><td>Foreman</td><td>1</td><td>3</td></tr>
<tr><td>Linemen</td><td>25</td><td>2</td></tr>
<tr><td>Health and Safety Engineer/Officer</td><td>1</td><td>2</td></tr>
</table></td></tr>
</table>

	TOTAL	**28**	
	Duly signed Statement of Availability of Key Personnel and Equipment.		
	The minimum major equipment requirements are the following: **Item No.** / **Number of Units** / **Equipment** 1 / 1 / Delivery Truck 1 / 1 / Boom Truck List of Contractor's Equipment Owned/Leased assigned to the Contract		
	This shall include of the following documents: 1) Bid prices in the prescribed form 2) Detailed estimates or the Bill of Materials Each and every page of the Bid Form, including the Bill of Materials under Form-001 shall be **signed** by duly authorized representative/s of the Bidder.		
7	The ABC is **Twenty Million Two Hundred Thirty Five Thousand Three Hundred Sixty-Six Pesos and 40/100 only** (Php 20, 235, 366. 40)**.** Any bid with a financial component exceeding this amount shall not be accepted.		
8.1	Bid will be valid for 120 calendar days from the opening of Bids.		
9.1	The Bidder's Bid Security may deposit directly to ILECO-I account, RCBC Savings Account, Jalandoni Branch, Iloilo I Electric Cooperative, Inc., Account # 7590534077, wherein the deposit slip must be emailed through bac.ileco1@gmail.com before/**two (2) days before the opening of bids**		
9.2	The bid security shall be valid for 120 calendar days from the date of opening of bids.		
14.1	The place and schedule of the opening of Bids is on: **October 28, at 10:00 AM** via zoom app link will be send to bidders who have paid the bid documents fee the day before the activity		
20	The following documents shall be submitted by the winning bidder **within five (5) calendar days** from receipt of the Notice of BAC recommendation to the HOPE for Award: a.) Duly signed PERT/CPM Network Diagram, Bar Chart with S-Curve, Cash flow Projection;		

	b) Duly signed Manpower Schedule; c) Duly signed Equipment Utilization Schedule; d) Duly signed Construction Method in Detailed Narrative Form; e) Contractor's All Risk Issuance (CARI) in accordance with Clause 12 of the General Conditions of Contract; f) Construction Safety and Health Program received and approved by DOLE.
22	The Performance Security should be paid/posted within **five (5) calendar days** from the receipt of Notice of Award in the form specified in the Clause 22.2 or may deposit directly to ILECO-I account, **RCBC Savings Account, Jalandoni Branch, Iloilo I Electric Cooperative, Inc., Account # 7590534077**, wherein the deposit slip must be emailed through bac.ileco1@gmail.com, upon deposit.

E. General Conditions of Contract

1. Definitions

For purposes of this Clause, boldface type is used to identify defined terms.

1.1. **Bill of Quantities/Materials** refers to a list of the specific items of the Work and their corresponding unit prices, lump sums, and/or provisional sums.

1.2. **The Completion Date** is the date of completion of the Works as certified by the ILECO 1's Representative.

1.3. The **Contract** is the contract between the ILECO 1 and the Contractor to execute, complete, and maintain the Works.

1.4 The **Contract Effectivity Date** is the date of signing of the Contract. However, the contractor shall commence execution of the Works on the Start Date as defined in SCC.

1.5 The **Contract Price** is the price stated in the SCC and thereafter to be paid by Contract

1.6 **Contract Time Extension** is the allowable period for the Contractor to complete the Works in addition to the original Completion Date stated in this Contract.

1.7 The **Contractor** is the juridical entity whose proposal has been accepted by the ILECO 1 and to whom the Contract to execute the Work was awarded.

1.8 The **Contractor's Bid** is the signed offer or proposal submitted by the Contractor to the ILECO 1 in response to the Bidding Documents.

1.9 A **Defect** is any part of the Works not completed in accordance with the Contract.

1.10 The **Defects Liability** Certificate is the certificate issued by ILECO 1's Representative upon correction of defects by the Contractor.

1.11 The **Defects Liability Period** is the period between contract completion and final acceptance within which the Contractor assumes the responsibility to undertake the repair of any damage to the Works at his own expense.

1.12 **Drawings** are graphical presentations of the Works. They include all supplementary details, shop drawings, calculations, and other information provided or approved for the execution of this Contract.

1.13 **Equipment** refers to all facilities, supplies, appliances, materials or things required for the execution and completion of the Work provided by the Contractor and which shall not form or are not intended to form part of the Permanent Works.

1.14 The **Intended Completion Date** refers to the date specified in the SCC when the Contractor is expected to have completed the Works. The Intended Completion Date may be revised only by the ILECO 1's Representative by issuing an extension of time or an acceleration order.

1.15 **Materials** are all supplies, including consumables, used by the Contractor for incorporation in the Works.

1.16 The **Notice to Proceed** is a written notice issued by the ILECO 1 or the ILECO 1's Representative to the Contractor requiring the latter to begin the commencement of the work not later than a specified or determinable date.

1.17 The **ILECO 1** is the Iloilo 1 Electric Cooperative, Inc (ILECO-1)

1.18 The **ILECO 1's Representative** refers to the Head of the ILECO 1 or his duly authorized representative, identified in the SCC, who shall be responsible for supervising the execution of the Works and administering the Contract.

1.19 The **Site** is the place provided by the ILECO 1 where the Works shall be executed and any other place or places which may be designated in the SCC, or notified to the Contractor by the ILECO 1's Representative as forming part of the Site.

1.20 Site **Investigation Reports** are those that were included in the Bidding Documents and are factual and interpretative reports about the surface and subsurface conditions at the Site.

1.21 **Slippage** is a delay in work execution occurring when actual accomplishment falls below the target as measured by the difference between the scheduled and actual accomplishment of the Work by the Contractor as established from the work schedule. This is actually described as a percentage of the whole Works.

1.22 **Specifications** means the description of Works to be done and the qualities of materials to be used, the equipment to be installed and the mode of construction.

1.23 The **Start Date**, as specified in the SCC, is the date when the Contractor is obliged to commence execution of the Works. It does not necessarily coincide with any of the Site Possession Dates.

1.24 A **Subcontractor** is any person or organization to whom a part of the Works has been subcontracted by the Contractor, as allowed by the ILECO 1, but not any assignee of such person.

2. The Contractor's Obligations

2.1. The Contractor shall carry out the Works properly and in accordance with this Contract. The Contractor shall provide all supervision, labor, Materials, Plant and Contractor's Equipment, which may be required. All Materials and Plant on Site shall be deemed to be the property of the ILECO 1.

2.2. The Contractor shall commence execution of the Works on the Start Date and shall carry out the Works in accordance with the Program of Work submitted by the Contractor, as updated with the approval of the ILECO 1 Representative, and complete them by the Intended Completion Date.

2.3. The Contractor shall be responsible for the safety of all activities on the Site.

2.4. The Contractor shall carry out all instructions of the ILECO 1's Representative that comply with the applicable laws where the Site is located.

2.5. The Contractor shall employ the key personnel named in the Schedule of Key Personnel, as referred to in the SCC, to carry out the supervision of the Works. The ILECO 1 will approve

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

2.6. If the ILECO 1's Representative asks the Contractor to remove a member of the Contractor's staff or work force, for justifiable cause, the Contractor shall ensure that the person leaves the Site within seven (7) days and has no further connection with the Work in this Contract.

2.7. During Contract implementation, the Contractor and his subcontractors shall abide at all times by all labor laws, including child labor related enactments, and other relevant rules.

2.8. **The Contractor shall submit to the ILECO 1 for consent the name and particulars of the person authorized to receive instructions on behalf of the Contractor.**

2.9. The Contractor shall cooperate and share the Site with other contractors, public authorities, utilities, and the ILECO 1 between the dates given in the schedule of other contractors particularly when they shall require access to the Site. The ILECO 1 may modify the schedule of the contractors, and shall notify the Contractor of any such modification thereto.

2.10. Should anything of historical or other interest or of significant value be unexpectedly discovered on the Site, it shall be surrender to ILECO 1. The Contractor shall notify the ILECO 1's Representative of such discoveries and carry out the ILECO 1's Representative's instructions in dealing with them.

2.11 The Contractor's Safety Officer shall secure that all their personnel shall be protected with the following Personal Protective Equipment (PPE) but not limited to:

1. Hardhat
2. Safety Shoes
3. Safety Gloves
4. Safety Belt

3. Performance Security

3.1. Within five (5) calendar days from receipt of the Notice of Award from the ILECO 1 but in no case later than the signing of the contract by both parties, the Contractor shall furnish the performance security in any of the forms prescribed in ITB Clause 22.2.

3.2. The performance security posted in favor of the ILECO 1 shall be forfeited in the event it is established that the Contractor is in default in any of its obligations under the Contract.

3.3. The performance security shall remain valid until issuance by the ILECO 1 of the Certificate of Final Acceptance.

3.4. The performance security may be released by the ILECO 1 and returned to the Contractor after the issuance of the Certificate of Final Acceptance subject to the following conditions:

(a) There are no pending claims against the Contractor or the surety company filed by the ILECO 1;

(b) The Contractor has no pending claims for labor and materials filed against it; and

(c) Other terms specified in the SCC.

3.5. The Contractor shall post an additional performance security following the amount and form specified in ITB Clause 22.2 to cover any cumulative increase of more than ten percent (10%) over the original value of the contract as a result of amendments to order or change orders, extra work orders and supplemental agreements, as the case may be. The Contractor shall cause the extension of the validity of the performance security to cover approved contract time extensions.

3.6. In case of a reduction in the contract value or for partially completed Works under the contract which are usable and accepted by the ILECO 1 the use of which, in the judgment of the implementing agency or the ILECO 1, will not affect the structural integrity of the entire project, the ILECO 1 shall allow a proportional reduction in the original performance security, provided that any such reduction is more than ten percent (10%) and that the aggregate of such reductions is not more than fifty percent (50%) of the original performance security.

3.7. Unless otherwise indicated in the SCC, the Contractor, by entering into the Contract with the ILECO 1, acknowledges the right of the ILECO 1 to institute action pursuant to Act 3688 **(An act for the protection of persons furnishing material and labor for the construction of public works)** against any subcontractor be they an individual, firm, partnership, corporation, or association supplying the Contractor with labor, materials and/or equipment for the performance of this Contract.

4. Subcontracting

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

4.2. If subcontracting is allowed. The contractor may identify its subcontractor during contract implementation stage. Subcontractors disclosed and identified during the bidding may be changed during the implementation of this Contract. In either case, subcontractors must submit the documentary requirements under ITB Clause 12 and comply with the eligibility criteria specified in the BDS. In the event that any subcontractor is found by any ILECO 1 to be ineligible, the subcontracting of such portion of the Works shall be disallowed.

5. Liquidated Damages

5.1. The Contractor shall pay liquidated damages to the ILECO 1 for each day that the Completion Date is later than the Intended Completion Date. The applicable liquidated damages are at least one-tenth (1/10) of a percent of the cost of the unperformed portion for every day of delay. The total amount of liquidated damages shall not exceed ten percent (10%) of the amount of the contract. The ILECO 1 may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor's liabilities. Once the cumulative amount of liquidated damages reaches ten percent (10%) of the amount of this Contract, the ILECO 1 may rescind or terminate this Contract, without prejudice to other courses of action and remedies available under the circumstances.

6. Site Investigation Reports

The Contractor, in preparing the Bid, shall rely on the Site Investigation Reports conducted by Contractor's personnel and supplemented by any information obtained by the Contractor.

7. Licenses and Permits

The ILECO 1 shall, if requested by the Contractor, assist him in applying for permits, licenses or approvals, which are required for the Works.

8. Contractor's Risk and Warranty Security

8.1. The Contractor shall assume full responsibility for the Works from the time project construction commenced up to final acceptance by the ILECO 1 and shall be held responsible for any damage or destruction of the Works except those occasioned by force majeure. The Contractor shall be fully responsible for the safety, protection, security, and convenience of his personnel, third parties, and the public at large, as well as the Works, Equipment, installation, and the like to be affected by his construction work.

8.2. The defects liability period for infrastructure projects shall be **Eighteen (18) months** from contract completion up to final acceptance by the ILECO 1. During this period, the Contractor shall undertake the repair works, at his own expense, of any damage to the Works on account of the use of materials of inferior quality within ninety (90) days from the time the HOPE has issued an order to undertake repair. In case of failure or refusal to comply with this mandate, the ILECO 1 shall undertake such repair works and shall be entitled to full reimbursement of expenses incurred therein upon demand.

8.3. Unless otherwise indicated in the SCC, in case the Contractor fails to comply with the preceding paragraph, the ILECO 1 shall forfeit its performance security, subject its property(ies) to attachment or garnishment proceedings, and perpetually disqualify it from participating in any public bidding.

8.4. After final acceptance of the Works by the ILECO 1, the Contractor shall be held responsible for "Structural Defects," i.e., major faults/flaws/deficiencies in one or more key structural elements of the project which may lead to structural failure of the completed elements or structure, or "Structural Failures," i.e., where one or more key structural elements in an infrastructure facility fails or collapses, thereby rendering the facility or part thereof incapable of withstanding the design loads, and/or endangering the safety of the users or the general public:

(a) Contractor – Where Structural Defects/Failures arise due to faults attributable to improper construction, use of inferior quality/substandard materials, and any violation of the contract plans and specifications, the contractor shall be held liable;

(b) Consultants – Where Structural Defects/Failures arise due to faulty and/or inadequate design and specifications as well as construction supervision, then the consultant who prepared the design or undertook construction supervision for the project shall be held liable;

(c) ILECO 1's Representatives/Project Manager/Construction Managers and Supervisors – The project owner's representative(s), project manager, construction manager, and

supervisor(s) shall be held liable in cases where the Structural Defects/Failures are due to his/their willful intervention in altering the designs and other specifications; negligence or omission in not approving or acting on proposed changes to noted defects or deficiencies in the design and/or specifications; and the use of substandard construction materials in the project;

(d) Third Parties - Third Parties shall be held liable in cases where Structural Defects/Failures are caused by work undertaken by them such as leaking pipes, diggings or excavations, underground cables and electrical wires, underground tunnel, mining shaft and the like, in which case the applicable warranty to such structure should be levied to third parties for their construction or restoration works.

(e) Users - In cases where Structural Defects/Failures are due to abuse/misuse by the end user of the constructed facility and/or non– compliance by a user with the technical design limits and/or intended purpose of the same, then the user concerned shall be held liable.

8.5. The warranty against Structural Defects/Failures, except that occasioned-on force majeure, shall cover the period specified in the SCC reckoned from the date of issuance of the Certificate of Final Acceptance by the ILECO 1.

8.6. The Contractor shall be required to put up a warranty security in the form of cash, bank guarantee, letter of credit, surety bond callable on demand, in accordance with the following forms:

Form of Warranty	**Amount of Warranty Security Not less than the Percentage (%) of Total Contract Price**
(a) Cash or letter of credit issued by Universal or Commercial bank: provided, however, that the letter of credit shall be confirmed or authenticated by a Universal or Commercial bank, if issued by a foreign bank	Ten Percent (10%)
(b) Bank guarantee confirmed by Universal or Commercial bank: provided, however, that the letter of credit shall be confirmed or authenticated by a Universal or Commercial bank, if issued by a foreign bank	
(c) Surety bond callable upon demand issued by any surety or insurance company duly certified by the Insurance Commission Thirty	Thirty Percent (30%)

8.7. The warranty security shall be stated in Philippine Pesos and shall remain effective for 18 months from the date of issuance of the Certificate of Final Acceptance by the ILECO 1, and returned only after the lapse of said period.

8.8. In case of structural defects/failure occurring during the applicable warranty period provided in GCC Clause 8.2, the ILECO 1 shall undertake the necessary restoration or reconstruction works and shall be entitled to full reimbursement by the parties found to be liable for expenses incurred therein upon demand, without prejudice to the filing of appropriate administrative, civil, and/or criminal charges against the responsible persons as well as the forfeiture of the warranty security posted in favor of the ILECO 1.

9. Liability of the Contractor

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

10. Price Adjustment

Except for extraordinary circumstances as determined by ILECO 1 dully approved by the HOPE, no price escalation shall be allowed. Nevertheless, in cases where the cost of the awarded contract is affected by any applicable new laws, ordinances, regulations, or other acts of the National Electrification Administration (NEA), promulgated after the date of bid opening, a contract price adjustment shall be made or appropriate relief shall be applied on a no loss-no gain basis.

11. Insurance

11.1. The Contractor shall, under his name and at his own expense, obtain and maintain, for the duration of this Contract, the following insurance coverage:

(a) Contractor's All Risk Insurance;

(b) Transportation to the project Site of Equipment, Machinery, and Supplies owned by the Contractor;

(c) Personal injury or death of Contractor's employees; and

(d) Comprehensive insurance for third party liability to Contractor's direct or indirect act or omission causing damage to third persons.

11.2. The Contractor shall provide evidence to the ILECO 1's Representative that the insurances required under this Contract have been effected and shall, within a reasonable time, provide copies of the insurance policies to the ILECO 1's Representative. Such evidence and such policies shall be provided to the ILECO 1's through the ILECO 1's Representative.

11.3. The Contractor shall notify the insurers of changes in the nature, extent, or program for the execution of the Works and ensure the adequacy of the insurances at all times in accordance with the terms of this Contract and shall produce to the ILECO 1's Representative the insurance policies in force including the receipts for payment of the current premiums.

11.4. If the Contractor fails to obtain and keep in force the insurances referred to herein or any other insurance which he may be required to obtain under the terms of this Contract, the ILECO 1 may obtain and keep in force any such insurances and pay such premiums as may be necessary for the purpose. From time to time, the ILECO 1 may deduct the amount it shall pay for said premiums including twenty five percent (25%) therein from any monies due, or which may become due, to the Contractor, without prejudice to the ILECO 1

exercising its right to impose other sanctions against the Contractor pursuant to the provisions of this Contract.

11.5. In the event the Contractor fails to observe the above safeguards, the ILECO 1 may, at the Contractor's expense, take whatever measure is deemed necessary for its protection and that of the Contractor's personnel and third parties, and/or order the interruption of dangerous Works. In addition, the ILECO 1 may refuse to make the payments until the Contractor complies with this Clause.

11.6. The Contractor shall immediately replace the insurance policy obtained as required in this Contract, without need of the ILECO 1's demand, with a new policy issued by a new insurance company acceptable to the ILECO 1 for any of the following grounds:

(a) The issuer of the insurance policy to be replaced has:

(i) become bankrupt;

(ii) been placed under receivership or under a management committee;

(iii) been sued for suspension of payment; or

(iv) been suspended by the Insurance Commission and its license to engage in business or its authority to issue insurance policies cancelled; or

(v) Where reasonable grounds exist that the insurer may not be able, fully and promptly, to fulfill its obligation under the insurance policy.

12. Termination by Default of Contractor

12.1. The ILECO 1 shall terminate this Contract for default when any of the following conditions attend its implementation:

(i) Due to the Contractor's fault and while the project is on-going, it has incurred negative slippage of fifteen percent (15%) or more in accordance with Presidential Decree 1870 (Authorizing the ILECO 1 take-over by Administration of Delayed Infrastructure Projects or Awarding of the Contract to other Qualified Contractors) regardless of whether or not previous warnings and notices have been issued for the Contractor to improve his performance;

(ii) Due to its own fault and after this Contract time has expired, the Contractor incurs delay in the completion of the Work after this Contract has expired; or

(iii) The Contractor:

a. abandons the contract Works, refuses or fails to comply with a valid instruction of the ILECO 1 or fails to proceed expeditiously and without delay despite a written notice by the ILECO 1;

b. does not actually have on the project Site the minimum essential equipment listed on the bid necessary to prosecute the Works in accordance with the approved Program of Work and equipment deployment schedule as required for the project;

c. does not execute the Works in accordance with this Contract or persistently or flagrantly neglects to carry out its obligations under this Contract;

d. neglects or refuses to remove materials or to perform a new Work that has been rejected as defective or unsuitable; or

e. sub-lets any part of this Contract without approval by the ILECO 1.

12.2. All materials on the Site, Plant, Works, including Equipment purchased and funded under the Contract shall be deemed to be the property of the ILECO 1 if this Contract is rescinded because of the Contractor's default.

13. Termination by Default of ILECO 1

The Contractor may terminate this Contract with the ILECO 1 if the works are completely stopped for a continuous period of at least sixty (60) calendar days through no fault of its own, due to any of the following reasons:

(a) Failure of the ILECO 1 to deliver, within a reasonable time, supplies, materials, right-of-way, or other items it is obligated to furnish under the terms of this Contract; or

14. Termination for Other Causes

14.1. The ILECO 1 may terminate this Contract, in whole or in part, at any time for its convenience. The HOPE may terminate this Contract for the convenience of the ILECO 1 if he has determined the existence of conditions that make Project Implementation economically, financially or technically impractical and/or unnecessary, such as, but not limited to, fortuitous event(s) or changes in law and National Government policies.

14.2. The ILECO 1 or the Contractor may terminate this Contract if the other party causes a fundamental breach of this Contract.

14.3. Fundamental breaches of Contract shall include, but shall not be limited to, the following:

(a) The Contractor stops work for twenty-eight (28) days when no stoppage of work is shown on the current Program of Work and the stoppage has not been authorized by the ILECO 1's Representative;

(b) The ILECO 1's Representative instructs the Contractor to delay the progress of the Works, and the instruction is not withdrawn within twenty-eight (28) days;

(c) The ILECO 1 shall terminate this Contract if the Contractor is declared bankrupt or insolvent as determined with finality by a court of competent jurisdiction. In this event, termination will be without compensation to the Contractor, provided that such termination will not prejudice or affect any right of action or remedy which has accrued or will accrue thereafter to the ILECO 1 and/or the Contractor. In the case of the Contractor's insolvency, any Contractor's Equipment which the ILECO 1 instructs in the notice is to be used until the completion of the Works;

(d) A payment certified by the ILECO 1's Representative is not paid by the ILECO 1 to the Contractor within eighty-four (84) days from the date of the ILECO 1's Representative's certificate;

(e) The ILECO 1's Representative gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the ILECO 1's Representative;

(f) The Contractor does not maintain a Security, which is required;

(g) The Contractor has delayed the completion of the Works by the number of days for which the maximum amount of liquidated damages can be paid, as defined in the GCC Clause 9; and

(h) In case it is determined prima facie by the ILECO 1 that the Contractor has engaged, before or during the implementation of the contract, in unlawful deeds and behaviors relative to contract acquisition and implementation, such as, but not limited to, the following:

(i) corrupt, fraudulent, collusive, coercive, and obstructive practices

(ii) drawing up or using forged documents;

(iii) using adulterated materials, means or methods, or engaging in production contrary to rules of science or the trade; and

(iv) any other act analogous to the foregoing.

(i) Slippage of more than thirty (30) days would result in non-payment, the contractor's cancellation, blacklisting of the contractor, and the engagement of another contractor to finish the project.

14.4. The Funding Source or the ILECO 1, as appropriate, will seek to impose the maximum civil, administrative and/or criminal penalties available under the applicable law on individuals and organizations deemed to be involved with corrupt, fraudulent, or coercive practices.

14.5. When persons from either party to this Contract gives notice of a fundamental breach to the ILECO 1's Representative in order to terminate the existing contract for a cause other than those listed under GCC Clause 14.3, the ILECO 1's Representative shall decide whether the breach is fundamental or not.

14.6. If this Contract is terminated, the Contractor shall stop work immediately, make the Site safe and secure, and leave the Site as soon as reasonably possible.

14.7 The prosecution of the Work is disrupted by the adverse peace and order situation, as certified by the Armed Forces of the Philippines Provincial Commander and approved by the Secretary of National Defense.

15. Procedures for Termination of Contracts

15.1. The following provisions shall govern the procedures for the termination of this Contract:

(a) Upon receipt of a written report of acts or causes which may constitute ground(s) for termination as aforementioned, or upon its own initiative, the ILECO 1 shall, within a period of seven (7) calendar days, verify the existence of such ground(s) and cause the execution of a Verified Report, with all relevant evidence attached;

(b) Upon recommendation by the ILECO 1, the HOPE shall terminate this Contract only by a written notice to the Contractor conveying the termination of this Contract. The notice shall state:

(i) that this Contract is being terminated for any of the ground(s) afore-mentioned, and a statement of the acts that constitute the ground(s) constituting the same;

(ii) the extent of termination, whether in whole or in part;

(iii) an instruction to the Contractor to show cause as to why this Contract should not be terminated; and

(iv) special instructions of the ILECO 1, if any. The Notice to Terminate shall be accompanied by a copy of the Verified Report;

(c) Within a period of seven (7) calendar days from receipt of the Notice of Termination, the Contractor shall submit to the HOPE a verified position paper stating why the contract should not be terminated. If the Contractor fails to show cause after the lapse of the seven (7) day period, either by inaction or by default, the HOPE shall issue an order terminating the contract;

(d) The ILECO 1 may, at any time before receipt of the Contractor's verified position paper described in item (c) above withdraw the Notice to Terminate if it is determined that certain items or works subject of the notice had been completed, delivered, or performed before the Contractor's receipt of the notice;

(e) Within a non-extendible period of ten (10) calendar days from receipt of the verified position paper, the HOPE shall decide whether or not to terminate this Contract. It shall serve a written notice to the Contractor of its decision and, unless otherwise provided in the said notice, this Contract is deemed terminated from receipt of the Contractor of the notice of decision. The termination shall only be based on the ground(s) stated in the Notice to Terminate; and

(f) The HOPE may create a Contract Termination Review Committee (CTRC) to assist him in the discharge of this function. All decisions recommended by the CTRC shall be subject to the approval of the HOPE.

15.2. Pursuant to Section 69(f) of RA 9184 and without prejudice to the imposition of additional administrative sanctions as the internal rules of the agency may provide and/or further criminal prosecution as provided by applicable laws, the ILECO 1 shall impose on contractors after the termination of the contract the penalty in accordance with the policy on sanction of the contractors who have violated the following:

(a) Failure of the contractor, due solely to his fault or negligence, to mobilize and start work or performance within the specified period in the Notice to Proceed ("NTP");

(b) Failure by the contractor to fully and faithfully comply with its contractual obligations without valid cause, or failure by the contractor to comply with any written lawful instruction of the ILECO 1 or its representative(s) pursuant to the implementation of the contract. For the procurement of infrastructure projects or consultancy contracts, lawful instructions include but are not limited to the following:

(i) Employment of competent technical personnel, competent engineers and/or work supervisors;

(ii) Provision of warning signs and barricades in accordance with approved plans and specifications and contract provisions;

(iii) Stockpiling in proper places of all materials and removal from the project site of waste and excess materials, including broken pavement and excavated debris in accordance with approved plans and specifications and contract provisions;

(iv) Deployment of committed equipment, facilities, support staff and manpower; and

(v) Renewal of the effectivity dates of the performance security after its expiration during the course of contract implementation.

(c) Assignment and subcontracting of the contract or any part thereof or substitution of key personnel named in the proposal without prior written approval by the ILECO 1.

(d) Poor performance by the contractor or unsatisfactory quality and/or progress of work arising from his fault or negligence as reflected in the Constructor's Performance Evaluation System ("CPES") rating sheet. In the absence of the CPES rating sheet, the existing performance monitoring system of the ILECO 1 shall be applied. Any of the following acts by the Contractor shall be construed as poor performance:

(i) Negative slippage of 15% and above within the critical path of the project due entirely to the fault or negligence of the contractor; and

(ii) Quality of materials and workmanship not complying with the approved specifications arising from the contractor's fault or negligence.

(e) Willful or deliberate abandonment or non-performance of the project or contract by the contractor resulting to substantial breach thereof without lawful and/or just cause. In addition to the penalty of suspension, the performance security posted by the contractor shall also be forfeited.

16. Force Majeure, Release from Performance

16.1. For purposes of this Contract the terms *"force majeure"* and *"fortuitous event"* may be used interchangeably. In this regard, a fortuitous event or force majeure shall be interpreted to mean an event which the Contractor could not have foreseen, or which though foreseen, was inevitable. It shall not include ordinary unfavorable weather conditions; and any other cause the effects of which could have been avoided with the exercise of reasonable diligence by the Contractor.

16.2. If this Contract is discontinued by an outbreak of war or by any other event entirely outside the control of either the ILECO 1 or the Contractor, the ILECO 1's Representative shall certify that this Contract has been discontinued. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all works carried out before receiving it and for any Work carried out afterwards to which a commitment was made.

16.3. If the event continues for a period of eighty-four (84) days, either party may then give notice of termination, which shall take effect twenty-eight (28) days after the giving of the notice.

16.4. After termination, the Contractor shall be entitled to payment of the unpaid balance of the value of the Works executed and of the materials and Plant reasonably delivered to the Site, adjusted by the following:

(a) any sum to which the Contractor is entitled to claimed.

(b) the cost of his suspension and demobilization;

(c) any sum to which the ILECO 1 is entitled.

16.5. The net balance due shall be paid or repaid within a reasonable time period from the time of the notice of termination.

17. Approval of Drawings and Temporary Works by the ILECO 1's Representative

17.1. All Drawings prepared by the Contractor for the execution of the Temporary Works, are subject to prior approval by the ILECO 1's Representative before its use.

17.2. The Contractor shall be responsible for design of Temporary Works.

17.3. The ILECO 1's Representative's approval shall not alter the Contractor's responsibility for design of the Temporary Works.

17.4. The Contractor shall obtain approval of third parties to the design of the Temporary Works, when required by the ILECO 1.

18. Extension of the Intended Completion Date

18.1. The ILECO 1's Representative shall extend the Intended Completion Date if a Variation is issued which makes it impossible for the Intended Completion Date to be achieved by the Contractor without taking steps to accelerate the remaining work, which would cause the Contractor to incur additional costs. No payment shall be made for any event which may warrant the extension of the Intended Completion Date.

18.2. The ILECO 1's Representative shall decide whether and by how much to extend the Intended Completion Date within twenty-one (21) days of the Contractor asking the ILECO 1's Representative for a decision thereto after fully submitting all supporting information. If the Contractor has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion.

19. Contractor's Right to Claim

If the Contractor incurs cost as a result of any of the events under GCC Clause 9, the Contractor shall be entitled to the amount of such cost. If as a result of any of the said events, it is necessary to change the Works, this shall be dealt with as a Variation.

20. Dayworks

20.1. Subject to GCC Clause 34 on Variation Order, and if applicable as indicated in the SCC, the Dayworks rates in the Contractor's bid shall be used for small additional amounts of work only when the ILECO 1's Representative has given written instructions in advance for additional work to be paid for in that way.

20.2. All work to be paid for as Dayworks shall be recorded by the Contractor on forms approved by the ILECO 1's Representative. Each completed form shall be verified and signed by the ILECO 1's Representative within two days of the work being done.

20.3. The Contractor shall be paid for Dayworks subject to obtaining signed Dayworks forms.

21. Early Warning

21.1. The Contractor shall warn the ILECO 1's Representative at the earliest opportunity of specific likely future events or circumstances that may adversely affect the quality of the work, increase the Contract Price, or delay the execution of the Works. The ILECO 1's Representative may require the Contractor to provide an estimate of the expected effect of the future event or circumstance on the Contract Price and Completion Date. The estimate shall be provided by the Contractor as soon as reasonably possible.

21.2. The Contractor shall cooperate with the ILECO 1's Representative in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the ILECO 1's Representative.

22. Program of Work

22.1. Within the time stated in the SCC, the Contractor shall submit to the ILECO 1's Representative for approval a Program of Work showing the general methods, arrangements, order, and timing for all the activities in the Works.

22.2. An update of the Program of Work shall show the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work, including any changes to the sequence of the activities.

22.3. The Contractor shall submit to the ILECO 1's Representative for approval an updated Program of Work at intervals no longer than the period stated in the SCC. If the Contractor does not submit an updated Program of Work within this period, the ILECO 1's Representative may withhold the amount stated in the SCC from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Program of Work has been submitted.

22.4. The ILECO 1's Representative's approval of the Program of Work shall not alter the Contractor's obligations. The Contractor may revise the Program of Work and submit it to the ILECO 1's Representative again at any time. A revised Program of Work shall show the effect of any approved Variations.

22.5. When the Program of Work is updated, the Contractor shall provide the ILECO 1's Representative with an updated cash flow forecast. The cash flow forecast shall include different currencies, as defined in the Contract, converted as necessary using the Contract exchange rates.

22.6. All Variations shall be included in updated Program of Work produced by the Contractor.

23. Management Conferences

23.1. Either the ILECO 1's Representative or the Contractor may require the other to attend a Management Conference. The Management Conference shall review the plans for remaining work and deal with matters raised in accordance with the early warning procedure.

23.2. The ILECO 1's Representative shall record the business of Management Conferences and provide copies of the record to those attending the Conference and to the ILECO 1. The responsibility of the parties for actions to be taken shall be decided by the ILECO 1's Representative either at the Management Conference or after the Management Conference and stated in writing to all who attended the Conference.

24. Bill of Quantities

24.1. The Bill of Quantities shall contain items of work for the construction, installation, testing, and commissioning of work to be done by the Contractor.

24.2. The Bill of Quantities is used to calculate the Contract Price. The Contractor is paid for the quantity of the work done at the rate in the Bill of Quantities for each item.

24.3. If the final quantity of any work done differs from the quantity in the Bill of Quantities for the particular item and is not more than twenty five percent (25%) of the original quantity, provided the aggregate changes for all items do not exceed ten percent (10%) of the Contract price, the ILECO 1's Representative shall make the necessary adjustments to allow for the changes subject to applicable laws, rules, and regulations.

24.4. If requested by the ILECO 1's Representative, the Contractor shall provide the ILECO 1's Representative with a detailed cost breakdown of any rate in the Bill of Quantities.

25. Instructions, Inspections and Audits

25.1. The ILECO 1's personnel shall at all reasonable times during construction of the Work be entitled to examine, inspect, measure and test the materials and workmanship, and to check the progress of the construction.

25.2. If the ILECO 1's Representative instructs the Contractor to carry out a test not specified in the Specification to check whether any work has a defect and the test shows that it does, **the Contractor shall pay for the test and any samples**. If there is no defect, the test shall be a Compensation Event.

25.3. The Contractor shall permit the Funding Source named in the SCC to inspect the Contractor's accounts and records relating to the performance of the Contractor and to have them audited by ILECO-1 internal auditors

26. Identifying Defects

The ILECO 1's Representative shall check the Contractor's work and notify the Contractor of any defects that are found. Such checking shall not affect the Contractor's responsibilities. The ILECO 1's Representative may instruct the Contractor to search uncover defects and test any work that the ILECO 1's Representative considers below standards and defective.

27. Cost of Repairs

Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defects Liability Periods shall be remedied by the Contractor at the Contractor's cost if the loss or damage arises from the Contractor's acts or omissions.

28. Correction of Defects

28.1. The ILECO 1's Representative shall give notice to the Contractor of any defects before the end of the Defects Liability Period, which is 18 Months period from project completion up to final acceptance by the ILECO 1's Representative.

28.2. Every time notice of a defect is given, the Contractor shall correct the notified defect within the length of time specified in the ILECO 1's Representative's notice.

28.3. The Contractor shall correct the defects which he notices himself before the end of the Defects Liability Period.

28.4. The ILECO 1 shall certify that all defects have been corrected. If the ILECO 1 considers that correction of a defect is not essential, he can request the Contractor to submit a quotation for the corresponding reduction in the Contract Price. If the ILECO 1 accepts the quotation, the corresponding change in the SCC is a Variation.

29. Uncorrected Defects

29.1. The ILECO 1 shall give the Contractor at least **fourteen (14) day notice** of his intention to use a third party to correct a Defect. If the Contractor does not correct the Defect himself within the period, the ILECO 1 may have the Defect corrected by the third party. The cost of the correction will be deducted from the Contract Price.

29.2. The use of a third party to correct defects that are uncorrected by the Contractor will in no way relieve the Contractor of its liabilities and warranties under the Contract.

30. Advance Payment

30.1. No advance payment or mobilization fees shall be more than the allowable payment.

31. Progress Payments

31.1. The Contractor may submit a request for payment for Work accomplished. Such request for payment shall be verified and certified by the ILECO 1's Representative/Project Engineer. Except as otherwise stipulated in the SCC, materials and equipment delivered on the site but not completely put in place shall not be included for payment.

31.2. The ILECO 1 shall deduct the following from the certified gross amounts to be paid to the contractor as progress payment:

(a) Cumulative value of the work previously certified and paid for.

(b) Portion of the advance payment to be recouped for the month.

(c) Retention money in accordance with the condition of contract.

(d) Amount to cover third party liabilities.

(e) Amount to cover uncorrected discovered defects in the works.

31.3. Payments shall be adjusted by deducting there from the amounts for advance payments and retention. The ILECO 1 shall pay the Contractor the amounts certified by the ILECO 1's Representative within twenty-eight (28) days from the date each certificate was issued. No payment of interest for delayed payments and adjustments shall be made by the ILECO 1.

31.4. The progress payment may be paid by the ILECO 1 to the Contractor provided that the Contractor's accomplishment reached the required percentage accomplishment specified on the Progress Payment Terms of SCC as certified by the ILECO 1's Representative.

31.5. Items of the Works for which a price of "0" (zero) has been entered will not be paid for by the ILECO 1 and shall be deemed covered by other rates and prices in the Contract.

32. Payment Certificates

32.1. The Contractor shall submit to the ILECO 1's Representative **monthly statements of the estimated value of the work executed** less the cumulative amount certified previously.

32.2. The ILECO 1's Representative shall check the Contractor's monthly statement and certify the amount to be paid to the Contractor.

32.3. The value of Work executed shall:

(a) be determined by the ILECO 1's Representative;

(b) comprise the value of the quantities of the items in the Bill of Quantities completed; and

(c) include the valuations of approved variations.

32.4. The ILECO 1's Representative may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.

33. Retention

33.1. The ILECO 1 shall retain from each payment due to the Contractor an amount equal to a percentage thereof using the rate as specified in GCC Sub- Clause 33.2.

33.2. Progress payments are subject to retention of ten percent (10%), referred to as the "retention money." Such retention shall be based on the total amount due to the Contractor prior to any deduction and shall be retained from every progress payment until fifty percent (50%) of the value of Works, as determined by the ILECO 1, are completed. If, after fifty percent (50%) completion, the Work is satisfactorily done and on schedule, no additional retention shall be made; otherwise, the ten percent (10%) retention shall again be imposed using the rate specified thereof

33.3. The total "retention money" shall be due for release upon the **issuance of NEA the Certificate of Final Inspection and Acceptance (CFIA)** of the Works. The Contractor may, however, may request the substitution of the retention money for each progress

billing with irrevocable standby letters of credit from a commercial bank, bank guarantees or surety bonds callable on demand, of amounts equivalent to the retention money substituted for and acceptable to the ILECO 1, provided that the project is on schedule and is satisfactorily undertaken. Otherwise, the ten (10%) percent retention shall be made. Said irrevocable standby letters of credit, bank guarantees and/or surety bonds, to be posted in favor of ILECO 1 and shall be valid for a duration to be determined by ILECO 1 and will answer for the purpose for which the ten (10%) percent retention is intended, i.e., to cover uncorrected discovered defects and third party liabilities.

33.4. Upon issuance of CFIA by NEA or prior to the release of 10% retention fee to the contractor, ILECO 1 shall require the Contractor to substitute the retention money with an "on demand" Bank guarantee in a form acceptable to the ILECO 1 except only if contractor substituted the withheld retention fee from every progress billing with a bank guarantee or surety bond. The purpose of this Clause is to cover contractor's liability defects within **18 months of the warranty period.**

34. Variation Orders

34.1. Variation Orders may be issued by the ILECO 1 to cover any increase/decrease in quantities, including the introduction of new work items that are not included in the original contract or reclassification of work items that are either due to change of plans, design or alignment to suit actual field conditions resulting in disparity between the preconstruction plans used for purposes of bidding and the "as staked plans" or construction drawings prepared after a joint survey by the Contractor and the ILECO 1 after award of the contract, provided that the cumulative amount of the Variation Order does not exceed ten percent (10%) of the original project cost. The addition/deletion of Works should be within the general scope of the project as bid and awarded. The scope of works shall not be reduced so as to accommodate a positive Variation Order. A Variation Order may either be in the form of a Change Order or Extra Work Order.

34.2. A Change Order may be issued by the ILECO 1 to cover any increase/decrease in quantities of original Work items in the contract.

34.3. An Extra Work Order may be issued by the ILECO 1 to cover the introduction of new work necessary for the completion, improvement or protection of the project which were not included as items of Work in the original contract, such as, where there are subsurface or latent physical conditions at the site differing materially from those indicated in the contract, or where there are duly unknown physical conditions at the site of an unusual nature differing materially from those ordinarily encountered and generally recognized as inherent in the Work or character provided for in the contract.

34.4. Any cumulative Variation Order beyond ten percent (10%) shall be subject of another contract to be bid out if the works are separable from the original contract. In exceptional cases where it is urgently necessary to complete the original scope of work, the HOPE may authorize a positive Variation Order go beyond ten percent (10%) but not more than twenty percent (20%) of the original contract price, subject to the guidelines to be determined by ILECO-1: Provided, however, That appropriate sanctions shall be imposed on the designer, consultant or official responsible for the original detailed engineering design which failed to consider the Variation Order beyond ten percent (10%).

34.5. In claiming for any Variation Order, the Contractor shall, within seven (7) calendar days after such work has been commenced or after the circumstances leading to such condition(s) leading to the extra cost, and within twenty-eight (28) calendar days deliver a written communication giving full and detailed particulars of any extra cost in order that it may be investigated at that time. Failure to provide either of such notices in the time stipulated shall constitute a waiver by the contractor for any claim. The preparation and submission of Variation Orders are as follows:

(a) If the ILECO 1's representative/Project Engineer believes that a Change Order or Extra Work Order should be issued, he shall prepare the proposed Order accompanied with the notices submitted by the Contractor, the plans therefore, his computations as to the quantities of the additional works involved per item indicating the specific stations where such works are needed, the date of his inspections and investigations thereon, and the log book thereof, and a detailed estimate of the unit cost of such items of work, together with his justifications for the need of such Change Order or Extra Work Order, and shall submit the same to the HOPE for approval.

(b) The HOPE or his duly authorized representative, upon receipt of the proposed Change Order or Extra Work Order shall immediately instruct the appropriate technical staff or office of the ILECO 1 to conduct an on-the-spot investigation to verify the need for the Work to be prosecuted and to review the proposed plan, and prices of the work involved.

(c) The technical staff or appropriate office of the ILECO 1 shall submit a report of their findings and recommendations, together with the supporting documents, to the Head of ILECO 1 or his duly authorized representative for consideration.

(d) The HOPE or his duly authorized representative, acting upon the recommendation of the technical staff or appropriate office, shall approve the Change Order or Extra Work Order after being satisfied that the same is justified, necessary, and in order.

(e) The timeframe for the processing of Variation Orders from the preparation up to the approval by the ILECO 1 concerned shall not exceed thirty (30) calendar days.

35. Contract Completion

Once the project reaches an accomplishment of ninety-five (95%) of the total contract amount, the ILECO 1 may create an inspectorate team to make preliminary inspection and submit a punch-list to the Contractor in preparation for the final turnover of the project. Said punch-list will contain, among others, the remaining Works, Work deficiencies for necessary corrections, and the specific duration/time to fully complete the project considering the approved remaining contract time. This, however, shall not preclude the claim of the ILECO 1 for liquidated damages.

36. Suspension of Work

36.1. The ILECO 1 shall have the authority to suspend the work wholly or partly by written order for such period as may be deemed necessary, due to force majeure or any fortuitous events or for failure on the part of the Contractor to correct bad conditions which are unsafe for workers or for the general public, to carry out valid orders given by the ILECO 1 or to

perform any provisions of the contract, or due to adjustment of plans to suit field conditions as found necessary during construction. The Contractor shall immediately comply with such order to suspend the work wholly or partly.

36.2. The Contractor or its duly authorized representative shall have the right to suspend work operation on any or all projects/activities along the critical path of activities after fifteen (15) calendar days from date of receipt of written notice from the Contractor to ILECO 1, as the case may be, due to the following:

(a) There exist right-of-way problems which prohibit the Contractor from performing work in accordance with the approved construction schedule.

(b) Requisite construction plans which must be owner-furnished are not issued to the contractor precluding any work called for by such plans.

(c) Peace and order conditions make it extremely dangerous, if not possible, to work. However, this condition must be certified in writing by the Philippine National Police (PNP) station which has responsibility over the affected area and confirmed by the Department of Interior and Local Government (DILG) Regional Director.

(d) Delay in the payment of Contractor's claim for progress billing beyond forty-five (45) calendar days from the time the Contractor's claim has been certified to by the ILECO 1's authorized representative that the documents are complete unless there are justifiable reasons thereof which shall be communicated in writing to the Contractor.

36.3. In case of total suspension, or suspension of activities along the critical path, which is not due to any fault of the Contractor, the elapsed time between the effectivity of the order suspending operation and the order to resume work shall be allowed the Contractor by adjusting the contract time accordingly.

37. Payment on Termination

37.1. If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the ILECO 1's Representative shall issue a certificate for the value of the work done and Materials ordered less advance payments received up to the date of the issue of the certificate and less the percentage to apply to the value of the work not completed, as indicated in the SCC. Additional Liquidated Damages shall not apply. If the total amount due to the ILECO 1 exceeds any payment due to the Contractor, the difference shall be a debt payable to the ILECO 1.

37.2. If the Contract is terminated for the ILECO 1's convenience or because of a fundamental breach of Contract by the ILECO 1, the ILECO 1's Representative shall issue a certificate for the value of the work done, Materials ordered, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works, and less advance payments received up to the date of the certificate.

37.3. The net balance due shall be paid or repaid within twenty-eight (28) days from the notice of termination.

37.4. If the Contractor has terminated the Contract under GCC Clauses 12 or 13, the ILECO 1 shall promptly return the Performance Security to the Contractor.

38. Extension of Contract Time

38.1. Should the amount of additional work of any kind or other special circumstances of any kind whatsoever occur such as to fairly entitle the contractor to an extension of contract time, the ILECO 1 shall determine the amount of such extension; provided that the ILECO 1 is not bound to take into account any claim for an extension of time unless the Contractor has, prior to the expiration of the contract time and within thirty (30) calendar days after such work has been commenced or after the circumstances leading to such claim have arisen, delivered to the ILECO 1 notices in order that it could have investigated them at that time. Failure to provide such notice shall constitute a waiver by the Contractor of any claim. Upon receipt of full and detailed particulars, the ILECO 1 shall examine the facts and extent of the delay and shall extend the contract time completing the contract work when, in the ILECO 1's opinion, the findings of facts justify an extension.

38.2. No extension of contract time shall be granted the Contractor due to

(a) ordinary unfavorable weather conditions and

(b) inexcusable failure or negligence of Contractor to provide the required equipment, supplies or materials.

38.3. Extension of contract time may be granted only when the affected activities fall within the critical path.

38.4. No extension of contract time shall be granted when the reason given to support the request for extension was already considered in the determination of the original contract time during the conduct of detailed engineering and in the preparation of the contract documents as agreed upon by the parties before contract perfection.

38.5. Extension of contract time shall be granted for rainy/unworkable days considered unfavorable for the prosecution of the works at the site, based on the actual conditions obtained at the site, in excess of the number of rainy/unworkable days pre-determined by the ILECO 1 in relation to the original contract time during the conduct of detailed engineering and in the preparation of the contract documents as agreed upon by the parties before contract perfection, and/or for equivalent period of delay due to major calamities such as exceptionally destructive typhoons, floods and earthquakes, and epidemics, and for causes such as non-delivery on time of materials, working drawings, or written information to be furnished by the ILECO 1, non-acquisition of permit to enter private properties or non-execution of deed of sale or donation within the right-of-way resulting in complete paralysation of construction activities, and other meritorious causes as determined by the ILECO 1's Representative and approved by the HOPE. Shortage of construction materials, general labor strikes, and peace and order problems that disrupt construction operations through no fault of the Contractor may be considered as additional grounds for extension of contract time provided, they are publicly felt.

39. Completion

The Contractor shall request the ILECO 1's Representative to issue a certificate of Completion of the Works, and the ILECO 1's Representative will do so upon deciding that the work is completed.

40. Taking Over

The ILECO 1 shall take over the Site and the Works within seven (7) days from the date the ILECO 1's Representative issues a certificate of Completion.

41. Operating and Maintenance Manuals

41.1. If "as built" Drawings and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates stated in the SCC.

41.2. If the Contractor does not supply the Drawings and/or manuals by the dates stated in the SCC, or they do not receive the ILECO 1's Representative's approval, the ILECO 1's Representative shall withhold the amount stated in the SCC from payments due to the Contractor

F. Special Conditions of Contract

<table>
<tr><td>GCC Clause</td><td></td></tr>
<tr><td>1.2</td><td>The Completion Date/Delivery Schedule is as follows:

Six (6) months from the receipt of Notice to Proceed (NTP).</td></tr>
<tr><td>1.3</td><td>The Contract Name is “Supply of Labor and Materials for the Construction of Distribution Line and Installation of House Wiring for SEP 2021”</td></tr>
<tr><td>1.5</td><td>The Contract Price is the bid offer of the winning bidding accepted by ILECO 1.</td></tr>
<tr><td>1.17</td><td>The Procuring Entity is ILECO 1</td></tr>
<tr><td>1.18</td><td>The ILECO 1’s Representative:

Authorized representative: Engr. Miguel A. Paguntalan Jr.
General Manager

Project End-user : Engr. Jerry Dignos
ESD Chief/End-User</td></tr>
<tr><td>1.19</td><td>The Site:
<table>
<tr><th>Municipality</th><th>Barangay</th><th>Sitio/s</th></tr>
<tr><td>Tubungan</td><td>Igtuble</td><td>Kagus-an</td></tr>
<tr><td>Tubungan</td><td>Igtuble</td><td>Narsalan</td></tr>
<tr><td>Tubungan</td><td>Igtuble</td><td>Nampungan</td></tr>
<tr><td>San Joaquin</td><td>Cata-an</td><td>Kiling</td></tr>
<tr><td>Maasin</td><td>Sinubsuban</td><td>Upper Kaning</td></tr>
<tr><td>Oton</td><td>Abilay Sur</td><td>Zone 1</td></tr>
<tr><td>Leon</td><td>Oluangan</td><td>Bugnay</td></tr>
<tr><td>Miag-ao</td><td>Bagumbayan</td><td>Zone 4</td></tr>
<tr><td>Maasin</td><td>Dagami</td><td>Calawing Sapa</td></tr>
<tr><td>Cabatuan</td><td>Ito Norte</td><td>Zone 7</td></tr>
<tr><td>Cabatuan</td><td>Ito Norte</td><td>Zone IV Ubos</td></tr>
<tr><td>Leon</td><td>Gines</td><td>Lawod</td></tr>
<tr><td>Igbaras</td><td>Buga</td><td>Upper Caragmayan</td></tr>
<tr><td>Igbaras</td><td>Buga</td><td>Lower Tamo-oc</td></tr>
<tr><td>Igbaras</td><td>Buga</td><td>Abang Ilaya</td></tr>
<tr><td>Leon</td><td>Carara-an</td><td>Upper Talibong</td></tr>
<tr><td rowspan="2">Igbaras</td><td rowspan="2">Alameda</td><td>Bucao</td></tr>
<tr><td>Riverside</td></tr>
<tr><td>Leon</td><td>Banagan</td><td>Taruk</td></tr>
<tr><td rowspan="2">Leon</td><td rowspan="2">Banagan</td><td>Camando</td></tr>
<tr><td>Danao</td></tr>
<tr><td>Tigbauan</td><td>Danao</td><td>Biga-a</td></tr>
</table></td></tr>
</table>

2.5	The Contractor shall employ the following Key Personnel: 1 Project Licensed Electrical Engineer 1 Foreman 25 Linemen 1 Health and Safety Engineer/Officer
3.4 (c)	No further Instruction
3.7	No further Instruction
5	The applicable rate is one tenth (1/10) of one (1) percent of the cost of the unperformed portion for every day of delay. The maximum deduction shall be ten percent (10%) of the amount of contract. Once the cumulative amount of liquidated damages reaches ten percent (10%) of the amount of the contract, the ILECO 1 shall rescind the contract, without prejudice to other courses of action and remedies open to it.
6	The site investigation reports are: It shall be the responsibility of the Contractor to obtain the site investigation reports.
8.3	No further Instruction
8.5	No further Instruction
9	All partners to the joint venture shall be jointly and severally liable to the Procuring Entity.
20	No further Instruction
22.1	The Contractor shall submit the Program of Work to the Procuring Entity's Representative within five (5) calendar days from its receipt of the Notice of Award duly conformed and accepted.
22.3	The period between Program of Work updates is thirty (30) calendar days. The amount to be withheld for late submission of an updated Program of Work is **twenty five percent (25%) of the amount of the progress payment being billed.**
25.3	The Funding Source is the General Appropriation Act (GAA) 2021
28.4	No further Instruction
30	Advance payment or mobilization equivalent to 15% of the total Contract price.
31.1	The Payment Terms 1. Payment Schedule - 15% - Advance payment as mobilization fee upon signing of contract. - 30% of the Contract Price shall be paid upon 50% completion. - 30% of the Contract Price shall be paid upon 80% completion - 15% of the Contract Price shall be paid upon 100% completion - 10% Retention shall be paid upon issuance of Certificate of Final Inspection and Acceptance (CFIA) by the National Electrification Administration (NEA).

	2. Payment shall be processed within 30 working days upon receipt of Request for Payment/ Billing Statement/Statement of Account from the Contractor that addressed to ILECO 1 General Manager, Engr. Miguel A. Paguntalan Jr. and duly supported with the required documents: 3. The request must be fully supported with Certification from end-user to the effect that it has been Completed in accordance with the terms of this contract and have been duly inspected and accepted with complete submission of required documents. 4. Payment is inclusive of VAT and all other taxes subject to corresponding withholding tax, auditing and accounting rules and regulations of the Cooperative relative to release of payment. 5. A retention fee of ten percent (10%) of the amount of each payment shall be retained to cover the Supplier's warranty obligations under this contract. Upon issuance of CFIA from NEA Contractor are required to post a Bank Guarantee of equivalent to 10% of the Contract Price or Surety Bond equivalent to 30% of the Contract Price to cover the warranty period.
37.1	No further Instruction
41.1	The date by which "As-Built Drawing" are required is fifteen (15) calendar days after project completion
41.2	The amount to be withheld for failing to produce "as built" drawings by the date required is five percent (5%) of the contract amount.

G. TECHNICAL SPECIFICATION AND SCOPE OF WORK

Bidders must state under the Column "Statement of Compliance" either "Comply" or "Not Comply" against each of the individual parameters of each Specification stating the corresponding performance parameter of the equipment offered. Statements of "Comply" or "Not Comply" must be supported by evidence in a Bidders Bid and cross-referenced to that 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 Bidders 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.

All line hardwares / materials shall meet the performance requirements application criteria and manufacturing tolerances passed on the following standards and other applicable standards. Materials or items that can be found under NEA Engineering Bulletin shall conform with the standards therein.

SPECIFICATION		STATEMENT OF COMPLIANCE	BIDDER'S BID/FORM OF EVIDENCE
SUSPENSION INSULATOR			
Type :	Clevis Suspension		
Class :	52-1		
ANSI Specification :	C29.2-1983		
PERFORMANCE REQUIREMENTS:			
Insulators shall meet the following minimum performance ratings:			
A. Suspension Insulators (ANSI C29.2-1983.rm.)			
I. Electrical:			
a. Low-frequency dry flashover (Kv)	60		
b. Low-frequency wet flashover (Kv)	30		
c. Critical impulse flashover, positive (Kv)	100		
d. Critical impulse flashover, negative (Kv)	100		
e. Low-frequency puncture (Kv)	80		
2. Radio-influence voltages (RIV):			
a. Low-frequency test voltage (rms-ground) Kv	7.5		
b. Maximum.RIV @ 1.0 Mhz micro-volts	50		
3. Mechanical:			
a. Combined mechanical and electrical strength (lbs)	1000		
b. Mechanical impact Strength (inch-lbs)	45		
c. Tension proof (lb)	5000		
d. Time load (lb)	6000		
4. Dimensions:			
a. Leakage distance (inches)	7		
dimension "see dx224, p8"			

SPOOL INSULATORS

Type Spool
Class 53-1; 53-2; 53-4
Specification C29.3-1986

PERFORMANCE REQUIREMENTS:
Insulators shall meet the following minimum performance ratings:

	ANSI Class		
1. Electrical:	53-1	53-2	53-4
a. Low frequency dry flashover (Kv)	20	25	25
b. Low frequency wet flashover (Kv)	8	12	12
1. Vertical	8	12	12
2. Horizontal	10	15	15

2. Mechanical:
a.Transverse Strength (lbs) 2000 3000 4500
dimension "see dx224, p9-11"

PIN INSULATORS

Type Medium Voltage Pin
Class 55-3; 55-5
ANSI Specification C29.5-1984

PERFORMANCE REQUIREMENTS:
Insulators shall meet the following minimum performance ratings:

1. Electrical:	
a. Low-frequency dry flashover (Kv)	65
b. Low-frequency wet flashover (Kv)	35
c. Critical impulse flashover, positive (Kv)	100
d. Critical impulse flashover, negative (Kv)	130
e. Low-frequency puncture (Kv)	95
2. Radio-influence voltages (RIV):	
a. Low-frequency test voltage (rms-ground) Kv	10
b. Maximum.RIV @ 1.0 Mhz micro-volts	50
3. Mechanical:	
a. Cantilever strength(lb)	2500
4. Dimensions:	
a. Leakage distance (inches)	7
b. Dry arcing distance(inches)	4.5
c. Minimum pin height(inches)	5

dimension "see dx224, p12"

STEEL PINS ANSI/ASTM Specification (I) ASTM A575-81:Standard Specification for Steel Bars, Carbon, Merchant Quality, M-Grade. (2) ASTM A576-81: Standard Specification for Steel Bars, Carbon, Hot Wrought, Special Quality. (3) ANSI C135.1-1979: American National Standard for Galvanized Steel Bolts and Nuts for Overhead Line Construction. (4) NEMA PHIQ-1977: NEMA Standard for Galvanized Ferrous Washers. (5) NEA Technical Standard 116: Standard for Locknuts. (6) ANSI/ASTM AI53-82: Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware. (7) ANSI C135.17-1979: American National Standard for Galvanized Ferrous Bolt-Type Insulator Pins with Lead Threads for Overhead Line Construction. (8) ANSI BI8.2.2-1972: Square and Hex Nuts (9) ANSI B1.1-1982: Unified Inch Screw Threads (UN and UNR Thread Form). (10) ANSI BI8.21.1-1983: American National Standard for Lock Nuts "see dimensions dx2250, p7-11"		

POLE TOP PINS ANSI/ASTM Specification 1. ANSI CI35.22-1979: American National Standard for Galvanized Ferrous Pole-Top Insulator Pins with Lead Threads for Overhead Line Construction. 2. ANSI/ASTMAI53-82: Standard specification for zinc coating (hot-dip)on iron and steel hardware. "see dimension dx2250,p15-17		

MACHINE BOLT ANSI/ASTM Specification [1] ANSI CI35.I-I979: American National Standard for Galvanized Steel Bolts and Nuts for Overhead Line Construction. [2] ANSI/ASTMAI53-82 : Standard Specification for Zinc Coating on Iron and Steel Hardware [3] ANSI BI8.2.2-I981: Square and Hex Bolts and Screws Including a Square Head Bolts, Hex Cap Screws, and Lag Screws. [4] ANSI BI8.2.2-1972: Square and Hex Nuts. [5] ANSI Bl.I-1982: Unified Inch Screw Threads (UN and UNR Form) [6] NEA Tech. Standard 186: Standard for Coarse Screw Threads. [7] NEA Tech. Standard 113: Standard for Square Steel Nuts. "see dimensions dx2250,p21-23"		

OVAL-EYE BOLT ANSI/ASMT Specification [I] ANSI C135.4-1979: American National Standard for Galvanized Ferrous Eye-Bolts and Nuts for Overhead Line Construction. [2] ANSI/ASTMAIS3-82: Standard' Specification for Zinc Coating (Hot-Dip) on Iron or Steel Hardware. [3] ANSI B18.2.2-1972: Square and Hex Nuts. [4] ANSI C135.1-1979: American National Standard for Galvanized Steel Bolts and Nuts for Overhead Line Construction. [5] ANSI Bl.l-1982: Unified Inch Screw Threads (UN and UNR Thread Form). [6] NEA Standard 186: Standard for Coarse Screw Threads. "see dimensions dx2250, p27"		

THIMBLE-EYE BOLT ANSI/ASTM Specification [I] ANSI C135.4-1979 : American National Standard for Galvanized Ferrous Eye-Bolts and Nuts for Overhead Line Construction. [2] ANSI/ASTMAIS3-82 : Standard' Specification for Zinc Coating (Hot-Dip)on Iron or Steel Hardware. [3] ANSI B18.2.2-1972 : Square and Hex Nuts. [4] ANSI C135.1-1979 : American National Standard for Galvanized Steel Bolts and Nuts for Overhead Line Construction. [5] ANSI Bl.l-1982: Unified Inch Screw Threads (UN and UNR Thread Form). [6] NEA Standard 186: Standard for Coarse Screw Threads. "see dimensions dx2250, p31"		

DOUBLE-ARMING BOLTS **ANSI/ASTM Specification** 1. ANSI CI35.1-1979: American National Standard for Galvanized Steel Bolts and Nuts for C Nerhead Line Construction. 2. ANSI/ASTM AI53-80: Standard Specification for .Zinc Coating (Hot-Dip) on Iron and Steel Hardware. 3. ANSI BI8.2.2-1972: Square and Hex Nuts. 4. ANSIB1.1-1982:Unified Inch Screw Threads (UN and UNR Thread Form). 5. NEA Technical Standard 186: Standard for Coarse Screw Threads. **"see dimensions dx2250, p35"**		

CARRIAGE BOLTS **ANSI/ASTM Specification** 1. ANSI C135.1-l979: American National Standard for Galvanized Steel Bolts and Nuts for Overhead Line Construction. 2. ASTM A663-82: Standard Specification for Steel Bars, Carbon, Merchant Quality, Mechanical Properties. 3. ASTM A675,-82: Standard Specification for Steel Bars, Carbon, Hot Wrought, Special Quality, Mechanical Properties. 4. ANSI/ASTM AI53-82: Standard Specification for Zinc Coating (Hot Dip) on Iron and Steel Hardware. 5. ANSI BI8.5-1978: Round Head Bolts. 6. ANSI BI8.2.2-l972: Square and Hex Nuts. 7. ANSI B1.1-1982: Unified Inch Screw Threads (UN and UNR Thread Form). 8. NEA Technical Standard 186: Standard for Coarse Screw Threads. **"see dimensions dx2250, p42"**		

SINGLE AND DOUBLE UPSET BOLTS **ANSI/ASTM Specification** [1] ANSI C 135.31-1980: American National Standard for Galvanized Ferrous Single and Double Upset Spool Insulator Bolts for Overhead Line Construction. [2] NEMA PH31-1977: NEMA Standard for Galvanized Ferrous Single and Double Upset Spool Insulator Bolts. [3] ANSI/ASTM AI53-82: [4] ANSI BI8.2.2-1972: Square and Hex Nuts. [5] ANSI C135.l-1979: American National Standard for Steel Bolts and Nuts for Overhead Line Construction. [6] NEMA Pub. No. PHIO-1977: NEMA Standards for Galvanized Ferrous Washers [7] NEA specification 116: NEA spec. for Square Locknuts. [8] ANSI B1.l-1982: Unified Inch Screw Threads (UN and UNR Thread Form) [9] NEA specification 186: Spec. for Coarse Screw Threads. **"see dimensions dx2250, p46-48"**		

STEEL CROSS-ARM BRACES ANSI/ASTM Specification 1. ASTM A570-79: Standard Specification for Hot-Rolled Carbon Steel Sheet and Strip, Structural Quality. 2. NEMA Pub. No. .PH6-1970: EEI-NEMA Standards for Metal Crossarms Braces. 3. ANSI/ASTM AI53.82: Standard Specifications for Zinc Coating (Hot Dip) on Iron and Steel Hardware "see dimensions dx2250, p56-59"		

FERROUS WASHER ANSI/ASTM Specification 1. ASTM A569-72 (R-1979): Standard Specification for Steel, Carbon (0.15 Maximum, Percent), Hot-Rolled Sheet and Strip, Commercial Quality. 2. ASTM A570-79: Standard Specification for Hot-Rolled Carbon Steel Sheet and Strip, Structural Quality. 3. ASTM A575-81: Standard Specification for Steel Bars, Carbon, Merchant Quality, M-Grade. 4. ASTM A635-81: Standard Specification for Hot-Rolled Carbon Steel Sheet and Strip, Commercial Quality, Heavy Thickness Coils (Formerly Plate). 5. ASTM A197-79: Standard Specification for Cupola Malleable Iron. 6. ASTM A536-80: Standard Specification for Ductile Iron Castings. 7. NEMA Pub. No. PH10-1971: NEMA Standards for Galvanized Ferrous Washers. 8. ANSIIASTMA153-82: Standard Specification for Zinc Coating (Hot-Dip) on Iron or Steel Hardware. "see dimensions dx2250, p63"		

SQUARE LOCK NUTS ANSI/ASTM Specification [1] ANSI C135.1-1979: American National Standard for Galvanized Steel.Bolts and Nuts for Overhead Line Construction. [2] ANSI/ASTM AI53-82: Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware. [2] ANSI/ASTM AI53-82: Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware. [3] ANSI Bl.l~1982: Unified Inch Screw Threads (UN and UNR Thread Form). 4] NEA Standard 186-1988: Standard for coarse screw threads. "see dimensions dx2250, p80"		

SQUARE NUT ANSI/ASTM Specification 1. ANSI C135.1-1979: American National Standard for galvanized steel bolts and nuts for overhead line construction. 2. ASMEIANSIAI53-82: American National Standard specifications for zinc coating (hot-dip) on iron and steel hardware. 3. ANSI BI8.2.2-1987: Square and Hex nuts 4. ANSI BI.1-1982: Unified inch screw threads (UN and UNR thread form). 5. ANSI B18.2.1-1981: Square and hex bolts and screws including square head bolts, hex cap screws, and lag crews. 6. NEA Specification 186: Specification for coarse screw threads. 7. NEA Specification 103: Specification for machine bolts. "see dimensions dx2250, p67"		

OVAL-EYE NUTS ANSI/ASTM Specification [1] ASTM A663-82: Standard Specification for Steel Bars, Carbons, Merchant Quality, Mechanical Properties. [2] ANSICI35.5-1979: American National Standard for Galvanized Ferrous Eye Nuts and Eyelets for Overhead Line Construction. [3] ANSIIASTM AI53-82: Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware. [4] ANSI Bl.l-1982: Unified Inch Screw Threads (UN and UNR, Thread Form). [5] NEA Standard 186: Standard for coarse screw threads. "see dimensions dx2250, p83"		

THIMBLE-EYE NUT ANSI/ASTM Specification 1. ASTM A663-82: Standard Specification for Steel Bars, Carbon, Merchant Quality, Mechanical Properties. 2. ASTM A675-82: Standard Specification for Steel Bars, Carbon, Hot Wrought, Special Quality, Mechanical Properties. 3. ANSI C135.5-1979: American National Standard for Galvanized Ferrous Eye Nuts and Eyelets for Overhead Line Construction. 4. ANSI/ASTM AI53-82: Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware. 5. ANSI Bl.l-1982: Unified Inch Screw Threads (UN and UNR Thread Form). 6. NEA Standard 186: Standard for Coarse Screw Threads.		

ANCHOR SHACKLE ANSI/ASTM Specification [1] ASTM A668-83 : Standard Specification for Steel forging, Carbon and Alloy, for General Industrial Use. [2] ANSI CI35.1-1979 : American National Standard for Galvanized Steel Bolts for Overhead Line Construction. [3] ANSIIASTMAI53-82: Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware. "see dimensions dx2250, p89"		

ATTACHMENT GUY ANSI/ASTM Specification 1. ANSI/ASTM A153-82: Standard Specification Zinc Coating (hot-dip) on Iron and Steel Hardware. "see dimensions dx2250, 100"		

ANCHOR ROD ANSI/ASTM Specification [I] ASTM A663-82: Standard Specification for Steel Bars, Carbon, Merchant Quality, Mechanical Properties. [2] ASTM A675-82: Standard Specification for Steel Bars, Carbon Hot Wrought, Special Quality, Mechanical Properties. [3] ANSI C135.2-1979: American National Standard for Threaded Galvanized Ferrous Strand-Eye Anchor Rods and Nuts for Overhead Line Construction. [4] ANSI/ASTM AI53-82: Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware. [5] ANSI Bl.l-1982: Unified Inch Screw Threads (UN and UNR Thread Form). [6] NEA STANDARD 186: Standard for Coarse Screw Threads. "see dimensions dx2250, p107-108"		

SOLID FERROUS GROUND RODS

ANSI/ASTM Specification

1. NEA Specification 140: Specification for ground rod clamps.

2. ASTM A663-82: Standard Specification for steel bars, carbon, merchant quality, mechanical properties.

3. ASTM A675-82: Standard specification for steel bars, carbon, hot wrought, special quality, mechanical properties.

4. ASTM Ad47-77: Standard specification for malleable iron castings.

5. ANSI/ASTM AI53-82: Standard specification for zinc coating (hot-dip) on iron and steel hardware.

"see dimensions dx2250, p111"

CONNECTOR COMPRESSION

ANSI/ASTM Specification

1. NEMA Pub. No. CC-3: EI-NEMA Standards for connectors for use between aluminum or aluminum-copper overhead conductors.

"see dimensions dx2260, p78"

CONDUCTOR BARE, ACSR

Size AWG	Strands no. & Size (inches)		Overall Diamater (inches)	DC Resistance Ohms/mile @ 25 C	Ultimate Strength (lbs)
	Aluminum	Steel			
6	6 X 0.0661	1 X 0.0661	0.0198	3.56	1,170
4	6 X 0.0834	1 X 0.0834	0.25	2.24	1,830
2	6 X 0.1092	1 X 0.1092	0.316	1.41	2,790
1/0	6 X 0.1327	1 X 0.1327	0.398	0.885	4,280
2/0	6 X 0.1490	1 X 0.1490	0.447	0.702	5,345
3/0	6 X 0.1672	1 X 0.1672	0.502	0.556	6,675
4/0	6 X 0.1878	1 X 0.1878	0.563	0.441	8,420

ANSI/ASTM Specification

[1] ASTM B232: Standard Specification for Concentric-Lay-Stranded Aluminum Conductors, Coated-Steel Reinforced (ACSR).

[2] ASTM B498: Standard Specification for Zinc Coated (Galvanized) Steel Core Wire for Aluminum Conductors, Steel Reinforced (ACSR).

[3]ASTM B230: Siandard Specification for Aluminum 1350-HI9 Wire for Electrical Purposes.

[4] ASTM B233: Standard Specification for Aluminum 1350 Redraw Rod for Electrical Purposes.

[5] IEC 888: Zinc-coated steel wires for stranded conductor.

CONDUCTOR, INSULATED
ACSR

Size AWG	Strands no. & Size (inches)		Before Insulation Overall Diameter (inches)	DC Resistance Ohms/mile @ 25 C	Ultimate Strength (lbs)
	Aluminum	Steel			
6	6 X 0.0661	1 X 0.0661	0.0198	3.56	1,170
4	6 X 0.0834	1 X 0.0834	0.25	2.24	1,830
2	6 X 0.1092	1 X 0.1092	0.316	1.41	2,790
1/0	6 X 0.1327	1 X 0.1327	0.398	0.885	4,280
2/0	6 X 0.1490	1 X 0.1490	0.447	0.702	5,345
3/0	6 X 0.1672	1 X 0.1672	0.502	0.556	6,675
4/0	6 X 0.1878	1 X 0.1878	0.563	0.441	8,420

Physical andAging Requirements

The insulation should exhibit the following performances:

1. Unaged Condition

Minimum tensile strength (lb/in.2) 1800

Minimum elongation at rupture (%) 250

2. Aged condition after oven test at 121°C + / -1°C for 168 hours.

Minimum tensile strength at rupture (% of unaged value) 75

Elongation at rupture (% of unaged value) 75

Heat distortion (% of unaged value)

4/0 AWG and smaller (30)

Larger than 4/0 AWG (10)

3. Insulation Thickness

Insulation jacket thickness of cables are listed below:

Conductor Size AWG	Insulation Thickness (mils)
4	45
2	45
1/0	60
2/0	60
4/0	60

ANSI/ASTM Specification [1] ASTM B232: Standard Specification for Concentric-Lay-Stranded Aluminum Conductors, Coated-Steel Reinforced (ACSR). [2] ASTM B498: Standard Specification for Zinc Coated (Galvanized) Steel Core Wire for Aluminum Conductors, A27 Steel Reinforced (ACSR). [3] ASTM B230: Standard Specification for Aluminum 1350-H19 Wire for Electrical Purpose. [4] ASTM B233: Standard Specification for Aluminum 1350 Redraw Rod for Electrical Purpose [5] AWPA C 1: Standards for Preservatives Treatment by Pressure Process - All Timber Products. [6] AWPA P5: Standards for Water-Borne Preservatives. [7] AWPA A2: Standard Methods for Analysis of Water-Borne Preservatives and Fire Retardant Formulations. [8] AwPA A7: Wet Ashing Procedures for Preparing Wood for Chemical Analysis. [9] AWPA A9: Standard Method for Analysis of Treated Wood And Treating solutions by X-Ray Emission Spectroscopy. [10] AWPA All: Analysis of Treated Wood and Treating solutions by Atomic Absorption Spectroscopy.		

Tree Wire Cable, 15 kv 2-Layer ACSR, ACSR (ANSI/ICEA S-66-524) Construction Conductors are concentrically stranded, AAC (1350-H19), compressed or full compact with conductor size, ACSR. Application Used for primary and secondary overhead distribution where limited space is available or desirable for rights of way. Installed as an uninsulated conductor; However, covering is effective in preventing direct shorts and instantaneous flashovers should tree limbs or other objects contact conductors in such close proximity. The resulting close-proximity configuration minimizes the amount of space and hardware required for line installation. Specifications 15kV covered multi-layer tree wire meets or exceeds all applicable ICEA specifications and the following ASTM specifications: ASTM B230 ASTM B231 ASTM B232 ASTM B398 ASTM B399 ASTM B400		

2-Layer 15kV ACSR Tree Wire							
Size		Conductor Diameter	Covering Thickness (mils)		Cable O.D.	Rated Strength	Weight per 1000 ft.
(AWG or kcmil)	Stranding	(mils)	Inner Layer	Outer Layer	(mils)	(lbs)	(lbs)
4	6/1	250	75	75	550	1767	136
2	6/1	316	75	75	616	2708	184
1/0	6/1	398	75	75	698	4161	255
2/0	6/1	447	75	75	747	5045	303
3/0	6/1	502	75	75	802	6289	362
4/0	6/1	563	75	75	863	7933	432

STEEL POLES						
		30 FEET	35 FEET	40 FEET		
	Type	Burial Type				
1	SHAPE	Octagonal				
2	Holes Arrangement	X-X, Y-Y, Z-Z				
3	Surface treatment	Hot dip galvanized in accordance with ASTM A 123.				
4	Section	1	1	1		
5	Design of pole	Against earthquake of 8 grade				
6	Wind Speed	160 Km/Hour . 30 m /s				
7	Minimum yield strength	355 mpa	355 mpa	355 mpa		
8	Minimum ultimate tensile strength	470 mpa	470 mpa	470 mpa		
9	Max ultimate tensile strength	630 mpa	630 mpa	630 mpa		
10	Standard	ISO 9001 : 2008				
11	Thickness	3.0mm, 86 Micron				
12	Design Load	500 Kg (Minimum Load Break)				

Annotations:

1. Steel poles shall be fabricated from structural quality hot rolled steel which conforms to NEA Specification Standard and ASTM A570-79.

2. Steel poles must be Hot Dip Galvanized in accordance with ANSI/ASTM A153-82.

4. Pole framing holes shall be based on NEA Specification.

5. Holes are through holes for 5/8 “diameter bolts mounting except for grounding slot.

6. Lifting points and ground line section shall be properly marked.7. 5/8" diameter step bolt holes are through & through to the body of the pole starting 10 feet from the butt up to 4 1/2 feet from the tip spaced at 20" on center at 90 degrees angle with the face of the pole. 8. Manufacturer's mark, date of manufacture, pole height &class ,type of coating, pole production or serial number shall be indicated on the face of the pole 10 feet from the butt. 9. With marking ground level should be based on standard.		

CONCRETE ANCHOR Class : AA Shape : Rectangular Ave. weight : 30kg Size : 5" X 5" X 30"		

MOUNTING BRACKETS Transformer : Hot-Dip Galvanized Fuse Cut-out : Hot-Dip Galvanized		

CLAMPS Strain : Hot-Dip Galvanized Guy : Hot-Dip Galvanized Loop Dead-end : Hot-Dip Galvanized Hot-Line : Hot-Dip Galvanized Suspension : Hot-Dip Galvanized		

SECONDARY CLEVIS Swinging : Hot-Dip Galvanized Bracket : Hot-Dip Galvanized		

FUSE CUT-OUT Rating : 100 amps Type : Porcelain		

TIE WIRES Line : Insulated, Jacketed Side : Insulated, Jacketed Tangent : Insulated, Jacketed		

HOUSE WIRING MATERIALS		
Circuit Breaker, 30 amps (SEP)		
Wire, PDX #10/2, Brand: Megawire (75 Mtrs./Box) (SEP)		
Wire, PDX #14/2 (75 Mtrs./Box) (SEP)		
Convenience Outlet, Two (2) Gang, Brand: ANAM (SEP)		
Receptacle, Plastic, 2", Brand: KOTI, Japan		
Staple, Insulated, 1"Japan (SEP)		
Tape, Electrical, 0.16mm X 19 mm X 16m (SEP)		
Bulb, CFL, 3U, Brand: Firefly		
Conductor, Insulated, #6, Poly ACSR (SEP)		
Conductor, Insulated, #6, Poly AAC (SEP)		
Junction Box, PVC, 4" X 4" w/ cover, Brand: POLY (SEP)		
Switch, Tumbler, 1-Pole, 6A, 250V, Brand: Firefly (SEP)		
Wire, PDX, #12/2, Brand: PUREFLEX (75 Mtrs./Box)		

Scope of Works

I. General

The scope of works shall include handling, transportation to sites, erection of all equipment and materials for the construction and installations of the distribution lines and networks, then Coordination with ILECO-1 Technical Services Department to energize the installed lines and testing before acceptance.

II. Coordination

A detailed plan / methodology of the Works (Gantt chart) shall be prepared by the Contractor in taking into account that any existing network, if possible, is to remain operational during the works. The contractor shall also submit a (PERTCPM) as basis for the computation of work slippage.

The necessary power cut-offs and disturbances for the consumers shall be reduced to a minimum and the Contractor shall prepare a time schedule for these temporary shutdowns in close coordination with the End user's Engineer.

The Contractor shall anticipate these operations so that sufficient notice of the disturbances shall be given in advance in order to allow ILECO-1 to inform the public.

The contractor is required to submit weekly detailed accomplishment report every Friday. Failure to submit shall mean no update of accomplishment for the week. Possible negative slippage to the contractor will result to a penalty as provided in the contract.

III. Extension of Lines and Networks

The Contractor shall have to inspect all sites and lines for the extension works are called for. The situation described in the as-plan staking sheet may have deviated from the actual situation at site. The contractor shall anticipate and be responsible for such deviation which falls under auxiliary work.

The work for the extension of distribution lines shall be done according to the NEA standard specifications and based on the latest Philippine Electrical Code (PEC).

IV. Lines Routes

The routes for the distribution lines are given in the drawings annexed to the present Document (as-plan staking sheet). The quantities of materials for the line networks are resulting from the engineering studies and from preliminary site visits and the basis of line length and angles, taking into account the span data of the poles given in the related specifications.

The ***Final Line Route*** *(basis of bid offer)* of the lines will be rechecked by the Contractor and ILECO-1 after the contract award. The final and detailed line route survey and profile drawings are in the responsibility of the Contractor.

V. New Distribution Lines

The new distribution lines shall be erected on steel poles with insulated primary conductors. The contractor shall secure approval of the materials to be utilized in the construction before transportation to the project site.

The main tasks to be performed in the construction of the lines shall include but not necessarily be limited to the following:

a) Verify the line survey (refer to as-plan staking sheets) shown on the maps and drawings supplied by the End-user (Final Line Route shall be determined by the Contractor)
b) Clearing the rights-of-way before construction
c) Checking of standard size and quality of materials and equipment which will used
d) Transportation to site, unloading at site of all equipment, materials, poles and conductors.
e) Staking of poles
f) Setting out the pole's locations at site
g) Excavations
h) Erect the poles complete with hardware's and necessary devices
i) Install and connect the grounding system.
j) Perform the pulling out, stringing and clamping of conductors
k) Perform the connections between feeders and branch feeders and install necessary clamps
l) Commissioning and testing of the lines.
m) Provide the necessary staff and instruments and assist ILECO-1 in the commissioning stages of the networks.

VI. House Wiring Installation

The contractor shall install the following to the project beneficiaries:

1. Complete house wiring materials (see bill of materials for HW)
2. Service drop wire – **maximum of 30 meters per beneficiary. In exist of 30 meters, the recipient may avail the services of the contractor. However, the charges/expenses is to the account of the recipient.**
3. kWh Meter

The end user is in-charge with the identification of SEP beneficiaries to be submitted to the contractor prior to the installation of the house wiring materials.

The contractor shall install the service drop wire (including the source side) from the tapping pole going the service entrance of the beneficiaries. In case the service drop wire is insufficient in length, the contractor must secure the wire inside the beneficiaries dwelling unit. The beneficiary is responsible in providing the lacking wire for their service connection.

It is the obligation of the contractor to submit a map out of the project reflecting the location of the tapping poles of beneficiaries after the completion of a project.

The contractor shall comply all back jobs provided by the end-user which is plus (+) or minus (-) 10% of the contract price

VII. General Requirements

a. Contractor's obligations

The Contractor shall act as a complete construction organization furnishing all supervision, labor, tools, camps, storage yards, apparatus, equipment and conveyances necessary for the specified works.

The contractor shall provide all materials for the work covered by this Specification.

The Contractor shall provide for storage at site of all materials to the extent required, shall haul and distribute all materials to the points where they are to be erected and shall erect the materials in accordance within NEA standard Specification and Drawings.

Site storage yards shall be secured and rented and guarded by the Contractor. These storage yards shall be kept neat and clean and growth of grass and weeds shall be controlled.

The price bid under each item shall include all labor equipment, materials, expenses and costs which are not to be classified under any other item or items and which may be necessary to completely perform the work to be done under said items in the manner herein set forth and specified.

The Contractor shall carry the sole responsibility for the employment and the assignment of his personnel to this project according to the regulations set by the department of labor and employment (DOLE).

The Contractor shall be responsible for assigning the staff and personnel having the necessary competence and experience to carry out the tasks required for the works.

All work shall be done and completed in a thoroughly workmanlike manner in accordance with NEA standard specifications for construction of distribution lines, notwithstanding any omissions from this Specification or Drawings.

b. Auxiliary work

All and any kind of work, material, services, safety measures, etc., as well as all tests and samples requested by the End User's Engineer and required for the completion of the work, shall be included in the contract amount. The auxiliary work comprises, but is not necessarily limited to, the following:

a. solution of difficulties in transport due to existing site, ground and road conditions
b. sorting of excavated material which, if necessary, is to be used for special purposes
c. Any expenditure for provision, maintenance and later removal of driveways; maintenance of existing ways and roads: provision, placing, maintenance and later removal of conveying and dumping equipment which might be required.
d. supply of all required materials
e. safety measures during the work to prevent damages to all human beings (site personnel, ILECO-1 personnel) as well as to public and private vehicles and properties.
f. removal of all pollution resulting from the Contractor's work, and of the Contractor's debris
g. protection of the completed works and the articles handed over for construction against damage and theft until acceptance
h. fixing of embedded parts in proper position, material supplied by the Contractor and/or others

VIII. Checklist

The issuance of **Certificate of Completion and Acceptance** shall only be given after accomplishing all the items given in this check list:

1. As-built staking of the newly constructed distribution line (detailed with assembly units)
2. Map-out of all installed house wiring installation
3. Pictures of the distribution line (pole-to-pole), kWhr meter and house wiring installation per recipient
4. Secure signature for certificate of energization from the barangay captain and Municipal Engineer (if necessary)
5. Secure signature of the recipient for the house wiring
6. Comply all back jobs provided by the end-user
7. Secure Certificate of Final Inspection from the end user
8. Energize the project— both distribution line and house wiring

IX. General Technical Requirements

The Contractor shall make any necessary special arrangements for unrolling and sagging the conductors or cables where the route crosses buildings, roads, plantations, gardens or other ground over which the erection cannot be carried out in the normal manner.

The contractor shall report to the end user's engineer for excess materials/items which was not use in the project. The excess materials/items shall be assumed by the end-user; however, its corresponding unperformed labor cost shall be deducted to the project.

No extra charge for handling of material or for any special precautions or methods necessary at such positions shall be allowed.

When the Contractor is about to carry out erection of the conductors or cables along or across power or telephone lines, public roads, waterways, he shall be responsible for giving the requisite notice to the appropriate Employers of the date and time at which he proposes to carry out the work.

The Contractor is responsible for the safety of utilities along or across which the works are being performed. In this way, protections shall eventually be placed to ensure the safety of these utilities. The number and placement, the specifications of such protections is under the responsibility of the Contractor.

No additional payment shall be made for special crossings, such as power lines, roads, valleys and passing over cultivated or built-up areas.

No joints are admissible in spans crossing other lines, roads, buildings, or other obstacles.

At his own cost and at his own responsibility the Contractor shall take all necessary steps to avoid any accident, breakdown, power outage of other lines, and other inconveniences.

All works shall be done in accordance with the latest version of the Philippine Electrical Code (PEC) and the NEA standard under the supervision of duly registered electrical engineer.

Statement of Compliant

_____

Submitted by:

Name : _____
Signature over Printed Name

Designation : _____

Date : _____

H. Bidding Forms

1. Bid Form (Form-001) FORM OF BID

Date: _____

To: _____

_____

Gentlemen and/or Ladies:

Having examined the Bidding Documents, the receipt of which is hereby duly acknowledged, we, the undersigned offer for ***Supply of Labor and Materials for the Construction of Distribution Line and Installation of House Wiring for SEP 2021*** in conformity with the said Bidding Documents for the sum of _____
Php_____) or such others sums may be ascertained in accordance with the Schedule of Prices attached herewith and made part of this Bid.

We undertake, if our Bid is accepted, to perform/conduct the construction in accordance with the schedule specified in the Delivery Schedule.

If our Bid is accepted, we undertake to provide a performance security in the forms, amounts, and within the times specified in the Bidding Documents.

We agree to abide by this Bid for the Bid Validity Period specified in the Instruction to Bidders (ITB) and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

Commissions or gratuities, if any, paid or to be paid by us to agents relating to this Bid, and to contract execution if we are awarded the contract, are listed below:

Name and Address of Agent	Amount and Currency	Purpose of Commission 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 or any Bid you may receive.

We certify/confirm that we comply with the eligibility requirements as per Instruction to Bidders (ITB) Clause No. 4 of the Bidding Documents.

Dated this _____ day of _____ 2019.

_____ _____

(signature) *(in the capacity of)*

Duly authorized to sign Bid for on behalf of _____ .

Detailed Project Cost per Sitio/s

Count	Municipality	Barangay	Sitio/s	Line Distribution		Housewiring		Total
				Materials	Labor	Materials	Labor	
1	Tubungan	Igtuble	Kagus-an					
2	Tubungan	Igtuble	Narsalan					
3	Tubungan	Igtuble	Nampungan					
4	San Joaquin	Cata-an	Kiling					
5	Maasin	Sinubsuban	Upper Kaning					
6	Oton	Abilay Sur	Zone 1					
7	Leon	Oluangan	Bugnay					
8	Miag-ao	Bagumbayan	Zone 4					
9	Maasin	Dagami	Calawing Sapa					
10	Cabatuan	Ito Norte	Zone 7					
11	Cabatuan	Ito Norte	Zone IV Ubos					
12	Leon	Gines	Lawod					
13	Igbaras	Buga	Upper Caragmayan					
14	Igbaras	Buga	Lower Tamo-oc					
15	Igbaras	Buga	Abang Ilaya					
16	Leon	Carara-an	Upper Talibong					
17	Igbaras	Alameda	Bucao					
18			Riverside					
19	Leon	Banagan	Taruk					
20	Leon	Banagan	Camando					
21			Danao					
22	Tigbauan	Danao	Biga-a					
	TOTAL							

Note: This form shall be attached with the detailed **Bill of Materials**.

2. Omnibus Statement (Form-002)

OMNIBUS SWORN STATEMENT

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

AFFIDAVIT

I, _____, of legal age, _____,
(Name of Affiant) (Civil Status)

_____ and residing at _____
(Nationality) (Address of Affiant)
with law, do hereby depose and state that:

2. Select one, delete the other:

a. If sole proprietorship:

I am the sole proprietor of _____ with office
(Name of Bidder)
address at _____;
(Address of Bidder)

b. If a partnership, corporation, cooperative, or joint venture:

I am the duly authorized and designated representative of _____with office address at
(Name of Bidder)
_____;
(Address of Bidder)

2. **Select one, delete the other:**

a. If sole proprietorship:

As the owner and sole proprietor _____,
(Name of Bidder)
I have full power and authority to do, execute and perform any and all acts necessary to represent it in the bidding for_____
(Name of Project)
of the **Iloilo I Electric Cooperative, Inc.**;

b. 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 and/or to represent the _____
(Name of Bidder)
in the bidding as shown in the attached_____
(State title of attached document showing proof of authorization e.g. duly notarized Secretary's Certificate issued by the corporation or the members of the joint venture);

3. _____ is not "blacklisted" or barred from
(Name of Bidder)
bidding by the Government of the Philippines or any of its agencies, offices, corporations, or Local Government Units, or Electric Cooperatives, foreign government/foreign or international financing institution whose blacklisting rules have been recognized by the Government Procurement Policy Board, or Electric Cooperatives.

4. Each of the documents submitted in satisfaction of the bidding requirements is an authentic copy of the original, complete, and all statements and information's provided therein are true and correct;

5. _____is authorizing the Head of
(Name of Bidder)
The ILECO 1 or its duly authorized representative(s) to verify all the documents submitted;

6. **Select one, delete the rest:**

   a. If sole proprietorship:

      I am not related to the Head of the ILECO 1, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, or the end-user unit, and the project Bidders by consanguinity or affinity up to the third civil degree;

   b. If a partnership or cooperative:

      None of officers and members of _____
      (Name of Bidder)
      Is related to the Head of the ILECO 1, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, or the end-user unit, and the project Bidders by consanguinity or affinity up to the third civil degree;

   c. If a corporation or joint venture:

      None of the officers, directors, and controlling stockholders of _____is related to the Head of the
      (Name of Bidder)

ILECO 1, members of the Bids and Awards Committee (BAC), the Technical Working Group, and the BAC Secretariat, or the end-user unit, and the project Bidders by consanguinity or affinity up to the third civil degree;

7. _____ complies with existing labor laws and standards;
(Name of Bidder)

8. _____ is aware of and has undertaken the following
(Name of Bidder)
responsibilities as a Bidder:

a. Carefully examine all of the Bidding Documents;
b. Acknowledge all conditions, local or otherwise, affecting the implementation of the Contract
c. Made an estimate of the facilities available and needed for the contract to be bid, if any; and
d. Inquire or secure Supplemental/Bid Bulletin (s) issued for the _____.
(Name of Project)

9. _____ did not give or pay directly or
(Name of Bidder)
Indirectly, any commission, amount, fee, or any form of consideration, pecuniary or otherwise, to any person or official, personnel or representative of the Electric Cooperative in relation to any procurement project or activity.

CONTRACT

KNOW ALL MEN BY THESE PRESENTS:

This contract made and entered at Tigbauan, Iloilo, Philippines on the date indicated below, by and between:

ILOILO 1 ELECTRIC COOPERATIVE INC., an electric cooperative duly organized and existing under the laws of the Republic of the Philippines with office address at Namocon, Tigbauan, Iloilo, herein represented by its President **LARRY P. NACIONALES**, and hereinafter referred to as **THE ENTITY**;

- and –

_____, a corporation duly organized and existing under the laws of the Republic of the Philippines with _____ herein represented by its _____ _____ and hereinafter referred to as **THE CONTRACTOR**;

WITNESSETH

WHEREAS, **THE ENTITY** invited Bids for the ***Supply of Labor and Materials for the Construction of Distribution Line and Installation of House Wiring for SEP 2021*** and has accepted the Bid by **THE CONTRACTOR** for the supply and delivery of this project in the sum of _____, hereinafter referred to as "**the Contract Price**".

WHEREAS, the words and expressions in this Agreement shall have the same meaning as are respectively assigned to them in the Conditions of Contract referred to;

WHEREAS, the following documents shall be deemed to form and be read and construed as part of this Agreement, viz.;

a) the Performance Bond;
b) the Entity's Notification of Award;
c) the Bid Form and the Price Form submitted by the Bidder;
d) the Statement of Delivery Schedule submitted by Bidder;
e) the After-Sales-Service Warranty submitted by Bidder;
f) the Technical Specifications;
g) the Instructions to Bidders;
h) the Bid Bulletin No. 2020-_____;
i) the General Conditions of Contract; and
j) the Special Conditions of Contract;

WHEREAS, in consideration of the payments to be made by the Entity to the Contractor as hereinafter mentioned, the Contractor hereby covenants with the Entity to provide the goods and services and to remedy defects therein in conformity in all respects with the provisions of the Contract.

WHEREAS, The Entity hereby covenants to pay the Contractor in consideration of the provision of the goods and services and the remedying of defects therein, the Contract price or such other sum as may become payable under the provisions of the contract at the time and in the manner prescribed by the contract.

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 dates below written.

ILOILO 1 ELECTRIC COOP. INC _____

DIR. LARRY P. NACIONALES _____
President _____
Date: _____ Date: _____

Signed in the presence of:

ENGR. MIGUEL A. PAGUNTALAN JR. _____

ACKNOWLEDGEMENT

Republic of the Philippines)
City/Province of _____) S.S.
X----------X

BEFORE ME, A Notary Public for and in the above jurisdiction, on this _____ day of _____, 2020, at _____, personally came appeared the above-named persons and presented integrally complete documents, identified by the undersigned Notary Public through their Competent evidence of identity to wit:

LARRY P. NACIONALES
Board President, ILECO-1
Senior Citizens ID No: 4426

_____
_____
_____
_____

and represented to the undersigned Notary Public that the signatures on the Contract Agreement were voluntarily affixed by them for the purposes stated in the instrument or document and declared that they have executed the instrument consisting of three (3) pages including this page and its annexes as their free and voluntary act and deed.

WITNESS MY HAND AND SEAL.

Doc. No._____
Page No._____
Book No._____
Series of 2021.

4. Conforming Completion Schedule (Form-004)

PROGRAM OF WORKS/S-CURVE

Project Name: ***Supply of Labor and Materials for the Construction of Distribution Line and Installation of House Wiring for SEP 2021***

Work Description	Month			
	1	2	3	4

Submitted by:

Name : _____

Signature over Printed Name

Designation : _____

Date : _____

AFTERSALES SERVICE WARRANTY

I/We, the undersigned do hereby warrant that all materials to be utilized for the projects ***Supply of Labor and Materials for the Construction of Distribution Line and Installation of House Wiring for SEP 2021*** are of good quality and further agree to correct the latent defects and deficiency during the warranty period at the contractor's expense. This warrant shall be effective for a period of _____ from the date of Acceptance of the project by Iloilo 1 Electric Cooperative, Inc.'s representative.

Submitted by:

Name : _____
Signature over Printed Name

Designation : _____

Date : _____

6. List of All on-going projects (Form-006)

Statement of all ongoing Government & Private Construction Contracts including contracts awarded but not yet started

Business Name : _____

Business Address : _____

Name of Contract/Location Project Cost	a. Owner name Address Telephone Nos. b. c.	Nature of Work	Contractor Roles		a. Date Awarded b. Date Started c Date of Completion	% of Accomplishment		Value of Outstanding Works
			Description	%		Planned	Actual	
						Total Cost		

The following documents ***shall be submitted as part of post-qualification requirment:***

1. Notice of Award and/or Contract;
2. Notice to Proceed issued by the owner;
3. Certificate of Accomplishments signed by the owner or Project Engineer;

Submitted by : _____

Printed Name & Signature

Designation : _____

Date : _____

7. List of Single Largest Completed Contract (Form-007)

Statement showing the Bidder's Single Largest Completed Contract which is Similar in Nature

Business Name : _____

Business Address : _____

Name of Contract	a. Owner Name b. Address c. Telephone Nos.	Nature of work	Contractor role		a. Amount at Award b. Amount at Completion c. Duration	a. Date Awarded b. Contract Effectivity c. Date Complete
			Description	%		

Note : This statement shall be supported with:

1. Contract
2. CPES rating sheets and/or Certificate of Completion
3. Certificate of acceptance

Submitted by : _____

(Printed Name & Signature)

Designation : _____

Date : _____

8. List of Personnel assigned to the Project (Form-008)

Personnel proposed to be assigned to the project

Count	**Personnel**	**Name**	**Years of Experience**
1	Project Licensed Electrical Engineer		
2	Foreman		
3	Linemen		
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			
19			
20			
21			
22			
23			
24			
25			
26			
27			
28	Health and Safety Engineer/Officer		

Note: Attached copy of individual Curriculum Vitae (CV), copy of the PRC license of the key personnel and copy of Certificate of Training of Occupational and Health for Safety Officers.

Submitted by:

Name : _____
Signature over Printed Name

Designation : _____

Date : _____

9. List of Major Equipment (Form-009)

Company Name : _____

Business Address : _____

LIST OF EQUIPMENT OWNED/LEASED ASSIGNED TO THE PROJECT

Description	Specify whether **OWNED or LEASED**	Model Name/Year	Capacity/Performance/ Size	**Plate No.** *(if applicable indicate N/A if not)*	**Motor No./Body No.***(if applicable, indicate N/A if not found)*	Location	Condition	Proof Ownership
1. Delivery Truck								
2. Boom Truck								

NOTE : **Proof of Ownership or Certification of availability of equipment from the equipment losser/vendor for the duration of the Project as the case may be, shall be submitted during post-qualification**

Submitted by : _____

Name of Authorized Representative / Designation / Date

Designation : _____

Date : _____

10. Confirming Availability of Stocks (Form-010)

CONFORMING AVAILABILITY OF STOCKS

Project Name: "Supply and Delivery of Fast Moving Electrical Materials for year 2021"

Invitation to Bid No. 2021-009

I/We, the undersigned do hereby certify that the following Materials related are available in our Warehouse:

Item No.	Description	Quantity

This further certify that we can supply all the materials required for the ***Construction of Distribution Line and Installation of House Wiring for SEP 2021***

Submitted by _____*[Printed name and Signature]*_____

Designation _____

Date _____

I. Online bidding submission and receipt of bids (Annex "A")

ONLINE BIDDING SUBMISSION AND RECEIPT OF BIDS

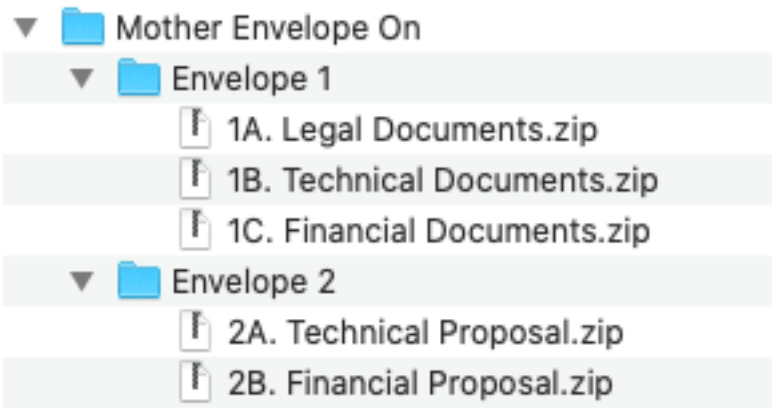
INSTRUCTION MANUAL

A. BID FORMAT PREPARATION (For Bidders)

1. Prepare the following prescribed folder arrangement: One (1) Mother Envelope that contains two (2) separate Envelopes. Each Envelope must contain the prescribed Folders.

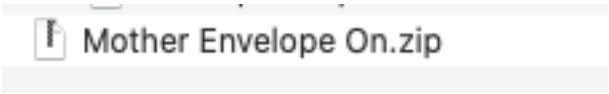
The content of each Folder should be saved as a PDF file with numerical prefix in each file name according to the checklist of eligibility requirements.

2. Compress each Folder. Each Folder must be password protected.



3. Compress each Envelope. Each Envelope must be password protected.

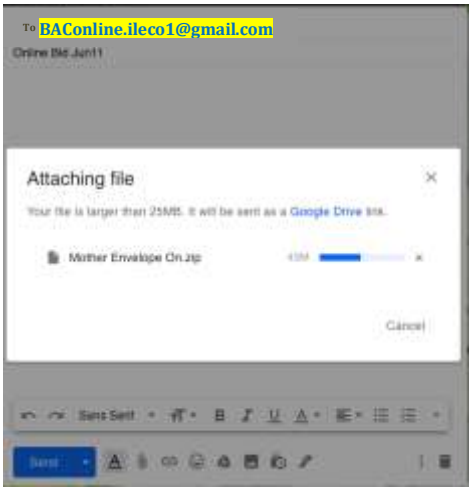
4. Compress Mother Envelope. The Mother Envelope must be password protected.



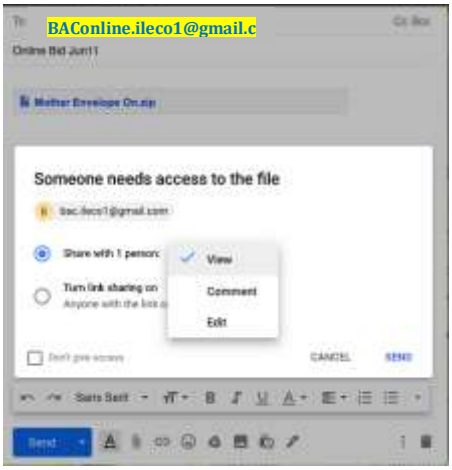
B. SUBMISSION OF BID (For Bidders)

1. Compose email and send to BAConline.ileco1@gmail.com.

Files over 25MB will be sent as a Google Drive link.

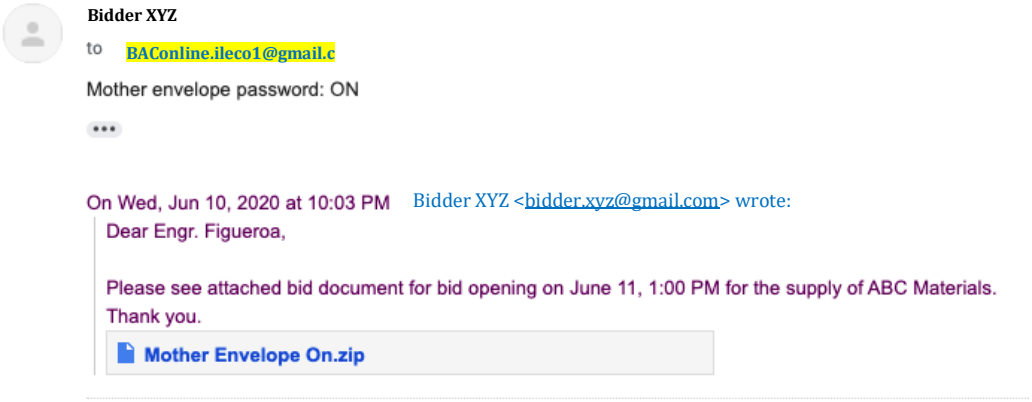


2. Click Send and allow BAC Viewing access to the file.



3. Wait for the instruction from the BAC Chairman to provide password to open the Folders during the online bid opening procedures via Zoom.

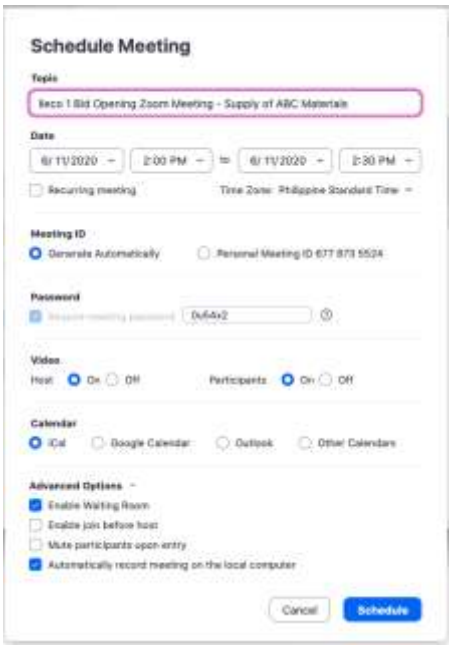
The Password for each Folder should be sent via Zoom Chat Room. Passwords should only be sent every after the BAC Chairman instructs the bidder to do so during the Zoom meeting. Sending of Passwords in advance is highly discouraged. Further, the Password must be sent within ten (10) minutes from the instruction from the BAC Chairman. Failure to do so may mean the bidder's disqualification.



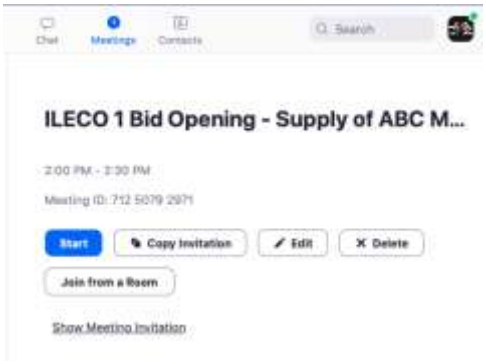
C. OPENING OF BIDS (For BAC)

Before Bid Opening

1. After the Pre-bid conference, schedule a Zoom meeting on the Bid Opening.



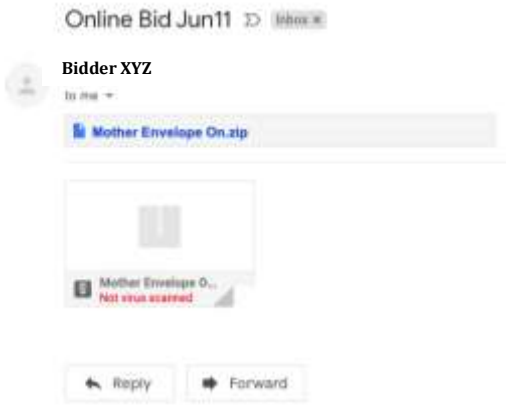
2. Email the Zoom Meeting invitation to Bidders with verified payment for bid documents at least one (1) day before bid opening.



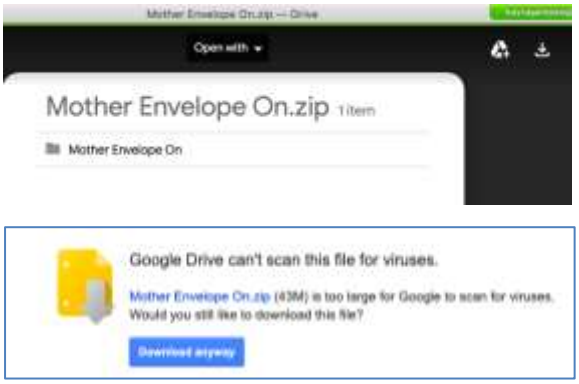
3. Set-up Zoom meeting Screen Sharing settings: Only the Host (BAC) can screen share during the bid opening.

4. Open the email from the Bidder containing their bid documents, then click the zip file link.

   The email from the Bidder should be received at least a one (1) hour before bid opening.



5. Download the zip file one (1) hour before bid opening to be ready for screen sharing.



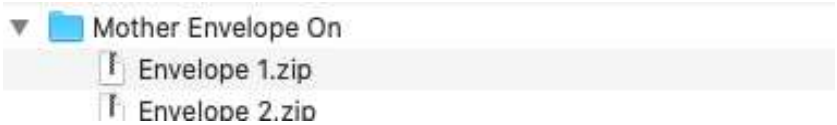
During Bid Opening

1. Click the zoom meeting Record button.

2. Share Screen the bidding requirement checklist for all participants to view.

3. Request the Password of the Mother Folder from the Bidder to be sent via Zoom Chat Room. Double click the Mother Envelope file. Enter the Password to open the file.

4. Proceed in the opening of the Envelopes and its Folder contents according the regular bidding procedure of one (1) folder at a time as long as the Bidder Pass the required criteria.



5. Present the Abstract of the bid opening

J. Bill of Materials and Drawings (Annex "B")

Construction of Distribution Lines in Sitio Upper Kaning, Barangay Sinubsuban, Maasin

1. Bill of Materials

DESCRIPTION		PROJECT REQUIREMENTS
Attachment, Guy, Malleable Type With 11/16" Hole Diameter	"HDG and Forged	13 pieces
Bolt, Double Upset, 5/8" X 10"		6 pieces
Bolt, Oval Eye, 5/8" X 9"		18 pieces
Bolt, Oval Eye, 5/8" X 10"		15 pieces
Bolt, Oval Eye, 5/8" X 18"		1 piece
Bolt, Machine, 5/8" X 8"		25 pieces
Bolt, Machine, 5/8" X 10"		12 pieces
Bolt, Machine, 5/8" X 12"		10 pieces
Bolt, Single Upset, 5/8" X 8"		6 pieces
Bracket, Clevis Deadend Without Spool		10 pieces
Bracket, Mounting for Cutout		2 pieces
Bracket, Mounting for Transformer		1 set
Clamp, Hot Line, #2 - #4/0 ACSR Main to #2 - #4/0		6 pieces
Clamp, Anchor Rod Bonding, Single Eye		13 pieces
Clamp, Loop Deadend, #1/0 ACSR		40 pieces
Clamp, Deadend Strain, #1/0 ACSR		7 pieces
Clamp, Guy Straight, 3 Bolt, Heavy Duty Steel		26 pieces
Clamp, Suspension, Aluminum Alloy Clevis, 2 Bolts, #2/0 ACSR Max.		2 pieces
Clevis, Secondary Swinging Without Spool		24 pieces
Shackle, Anchor, Forged Steel, Galvanized		3 pieces
Conductor, 23 kv Insulated, Tree Wire, ACSR/AW -TR/OC-SB #1/0, AWG 6/1 (Meters)		1,351 meters
Conductor, Bare, ACSR #1/0, AWG 6/1 (Meters)		1,512 meters
Conductor, Insulated, ACSR #2/0, AWG 6/1 (600 V)		1,512 meters
Connector, Compression, YHD 250, Run #1- #4/0-Tap #6 - #2		50 pieces
Connector, Compression, YHD 300, Run #1/0 - #2/0 - Tap #1/0 - #2/0		1 piece
Connector, Compression, YHD 400, Run #2/0 - #4/0 - Tap #2/0 - #410		6 pieces
Connector, Ground Rod (Clamp) For 5/8" Steel Rod		21 pieces
Fuse Cut-out & Arrester Combination, 15KV, Class 100		2 sets
Insulator, Pin Type, Porcelain, ANSI, Class 55 - 5		16 pieces
Insulator, Spool, 1-3/4", ANSI, Class 53 - 2		28 pieces
Insulator, Spool, 3", ANSI, Class 53 - 4		18 pieces
Insulator, Suspension, 6", Porcelain, Clevis Type		18 pieces
Link, Fuse, Universal, Bottom Head, 2 Amperes, Std.		1 piece
Link, Fuse, Universal, Bottom Head, Type K, 6A		1 piece
Nut, Eye, 5/8", Conventional		1 piece
Nut, Lock, Mf Type, 5/8"		90 pieces
Nut, Lock, Mf Type, 3/4"		15 pieces
Pin, Pole Top, Channel, 1" Thread, 20" Long		16 pieces
Rod, Anchor, Threaded, Single Eye, 5/8" X 7'		13 pieces
Rod, Armor, Preformed, #1/0 ACSR, Single Support		9 sets
Rod, Armor, Preformed, #2/0 ACSR, Single Support		13 sets
Rod, Ground Steel, Galvanized, 5/8" X 10'		21 pieces
Spacer, Pipe, 3/4" X 1-1/2"		10 pieces
Stirrup, #1/0-#2/0		2 pieces
Transformer, Pole Type, Conventional, Amorphous, 10 KVA		1 unit
Washer, Square, Flat, 2-1/4" X 2-1/4" X 3/16", 13/16" Diameter Hole		80 pieces
Washer, Square, Flat, 4" X 4" X 1/2" With 7/8" Diameter Hole		13 pieces
Wire, Tie, Insulated, ACSR, #6 AWG,		284 feet
Wire, Grounding, Aluminum Alloy, 3 Strand, #4 AWG		71 feet
Wire, Guy, Steel, 3/8", 7 Strand		650 feet
CONCRETE/STEEL MATERIAL		
Pole, Steel, 35', Standard		19 pieces
Block, Anchor, Concrete		13 pieces

ASSEMBLY UNITS	QUANTITY
I. POLE TOP ASSEMBLY UNITS	
A1	6
A2	5
A3	2
A4	2
A5	2
A5-2	1
II. TRANSFORMER ASSEMBLY UNITS	
G9	1
III. GROUNDING ASSEMBLY UNITS	
M2-11A	21
IV. GUY ASSEMBLY UNITS	
E1-2	13
V. ANCHOR ASSEMBLY UNITS	
F2-1	13
VI. SECONDARY ASSEMBLY UNITS	
J5	6
J6	13
J7	2
J10	5
VII. POLE	
35 Feet	19
VIII. CONDUCTOR ASSEMBLY	
BARE	
#1/0, AWG, ASCR	1.512 Kms.
INSULATED	
#1/0, AWG, ASCR (Tree Wire)	1.351 Kms.
#1/0, AWG	1.351 Kms.
#2/0, AWG	1.512 Kms.
IX. MISCELLANEOUS ASSEMBLY UNITS	
M3-1A	2
M5-1	2

2. HOUSE WIRING

DESCRIPTION	PROJECT REQUIREMENTS
Conductor, Duplex, #6, AWG	1,080 meters
Connector, Compression, YHO 100, #6 - #2 ACSR Run To #6 - #2	72 pieces
Meter, KWH, 1 Phase, Class 1, 240 V, 10(60) A, Electronic, Bottom Connected	36 pieces
Housewiring	36 sets

(1 set - Circuit Breaker or Safety Switch (30 Amps.); 2 pcs. - Receptacles; 2 pcs. - CFL Bulb (15W); 2 sets - Tumbler Switch
1 set - Convenience Outlet (2 gang); 2 pcs. - Junction Box (plastic with cover); 5 meters - PDX Wire #10
10 meters - PDX Wire #12; 10 meters - PDX Wire #14; 1 pc. - Electrical Tape (big) and 30 pcs. - Staple Wire)

ASSEMBLY UNITS	QUANTITY
I. CONDUCTOR ASSEMBLY	
DUPLEX	
#6D, AWG	1.080 Kms.
II. MISCELLANEOUS ASSEMBLY UNITS	
Housewiring Installations	36

Prepared by:

ENGR. KARL JUNE T. TAYO
Design and Planning Section Head

Reviewed by:

ENGR. JERRY D. DIGNOS
ESD Chief

Recommending Approval:

ENGR. GC JUNE N. GARANCHON
TSD Manager

Approved by:

ENGR. MIGUEL A. MAGUNTALAN, JR.
General Manager

Construction of Distribution Lines in Sitio Kiling, Barangay Cata-an, San Joaquin

1. Bill of Materials

DESCRIPTION		PROJECT REQUIREMENTS
Attachment, Guy, Malleable Type With 11/16" Hole Diameter	"HDG and Forged	9 pieces
Bolt, Double Upset, 5/8" X 10"		1 piece
Bolt, Oval Eye, 5/8" X 9"		20 pieces
Bolt, Oval Eye, 5/8" X 10"		21 pieces
Bolt, Oval Eye, 5/8" X 18"		1 piece
Bolt, Machine, 5/8" X 8"		11 pieces
Bolt, Machine, 5/8" X 10"		8 pieces
Bolt, Machine, 5/8" X 12"		2 pieces
Bolt, Single Upset, 5/8" X 8"		1 piece
Bracket, Clevis Deadend Without Spool		6 pieces
Bracket, Mounting for Cutout		2 pieces
Bracket, Mounting for Transformer		1 set
Clamp, Hot Line, #2 - #4/0 ACSR Main to #2 - #4/0		7 pieces
Clamp, Anchor Rod Bonding, Single Eye		9 pieces
Clamp, Loop Deadend, #1/0 ACSR		50 pieces
Clamp, Deadend Strain, #1/0 ACSR		8 pieces
Clamp, Guy Straight, 3 Bolt, Heavy Duty Steel		18 pieces
Clamp, Suspension, Aluminum Alloy Clevis, 2 Bolts, #2/0 ACSR Max.		2 pieces
Clevis, Secondary Swinging Without Spool		31 pieces
Shackle, Anchor, Forged Steel, Galvanized		3 pieces
Conductor, 23 kv Insulated, Tree Wire, ACSR/AW -TR/OC-SB #1/0, AWG 6/1 (Meters)		575 meters
Conductor, Bare, ACSR #1/0, AWG 6/1 (Meters)		1,035 meters
Conductor, Insulated, ACSR #2/0, AWG 6/1 (600 V)		1,035 meters
Connector, Compression, YHD 250, Run #1- #4/0-Tap #6 - #2		35 pieces
Connector, Compression, YHD 300, Run #1/0 - #2/0 - Tap #1/0 - #2/0		1 piece
Connector, Compression, YHD 400, Run #2/0 - #4/0 - Tap #2/0 - #410		7 pieces
Connector, Ground Rod (Clamp) For 5/8" Steel Rod		15 pieces
Fuse Cut-out & Arrester Combination, 15KV, Class 100		2 sets
Insulator, Pin Type, Porcelain, ANSI, Class 55 - 5		3 pieces
Insulator, Spool, 1-3/4", ANSI, Class 53 - 2		17 pieces
Insulator, Spool, 3", ANSI, Class 53 - 4		22 pieces
Insulator, Suspension, 6", Porcelain, Clevis Type		20 pieces
Link, Fuse, Universal, Bottom Head, 2 Amperes, Std.		1 piece
Link, Fuse, Universal, Bottom Head, Type K, 6A		1 piece
Nut, Eye, 5/8", Conventional		1 piece
Nut, Lock, Mf Type, 5/8"		62 pieces
Nut, Lock, Mf Type, 3/4"		3 pieces
Pin, Pole Top, Channel, 1" Thread, 20" Long		3 pieces
Rod, Anchor, Threaded, Single Eye, 5/8" X 7'		9 pieces
Rod, Armor, Preformed, #1/0 ACSR, Single Support		4 sets
Rod, Armor, Preformed, #2/0 ACSR, Single Support		10 sets
Rod, Ground Steel, Galvanized, 5/8" X 10'		15 pieces
Spacer, Pipe, 3/4" X 1-1/2"		2 pieces
Stirrup, #1/0-#2/0		2 pieces
Transformer, Pole Type, Conventional, Amorphous, 10 KVA		1 unit
Washer, Square, Flat, 2-1/4" X 2-1/4" X 3/16", 13/16" Diameter Hole		60 pieces
Washer, Square, Flat, 4" X 4" X 1/2" With 7/8" Diameter Hole		9 pieces
Wire, Tie, Insulated, ACSR, #6 AWG,		96 feet
Wire, Grounding, Aluminum Alloy, 3 Strand, #4 AWG		51 feet
Wire, Guy, Steel, 3/8", 7 Strand		450 feet
CONCRETE/STEEL MATERIAL		
Pole, Steel, 35', Standard		15 pieces
Block, Anchor, Concrete		9 pieces

ASSEMBLY UNITS	QUANTITY
I. POLE TOP ASSEMBLY UNITS	
A1	1
A2	1
A3	2
A4	3
A5	1
A5-2	1
II. TRANSFORMER ASSEMBLY UNITS	
G10	1
III. GROUNDING ASSEMBLY UNITS	
M2-11A	15
IV. GUY ASSEMBLY UNITS	
E1-2	9
V. ANCHOR ASSEMBLY UNITS	
F2-1	9
VI. SECONDARY ASSEMBLY UNITS	
J5	1
J6	17
J7	4
J10	5
VII. POLE	
35 Feet	15
VIII. CONDUCTOR ASSEMBLY	
BARE	
#1/0, AWG, ASCR	1.035 Kms.
INSULATED	
#1/0, AWG, ASCR (Tree Wire)	0.575 Kms.
#1/0, AWG	0.575 Kms.
#2/0, AWG	1.035 Kms.
IX. MISCELLANEOUS ASSEMBLY UNITS	
M3-1A	2
M5-1	2

2. HOUSE WIRING

DESCRIPTION	PROJECT REQUIREMENTS
Conductor, Duplex, #6, AWG	360 meters
Connector, Compression, YHO 100, #6 - #2 ACSR Run To #6 - #2	24 pieces
Meter, KWH, 1 Phase, Class 1, 240 V, 10(60) A, Electronic, Bottom Connected	12 pieces
Housewiring	12 sets

(1 set - Circuit Breaker or Safety Switch (30 Amps.); 2 pcs. - Receptacles; 2 pcs. - CFL Bulb (15W); 2 sets - Tumbler Switch 1 set - Convenience Outlet (2 gang); 2 pcs. - Junction Box (plastic with cover); 5 meters - PDX Wire #10

10 meters - PDX Wire #12; 10 meters - PDX Wire #14; 1 pc. - Electrical Tape (big) and 30 pcs. - Staple Wire)

ASSEMBLY UNITS	QUANTITY
I. CONDUCTOR ASSEMBLY	
DUPLEX	
#6D, AWG	0.360 Kms.
II. MISCELLANEOUS ASSEMBLY UNITS	
Housewiring Installations	12

Prepared by:

ENGR. KARL JUNE T. TAYO
Design and Planning Section Head

Reviewed by:

ENGR. JERRY D. DIGNOS
ESD Chief

Recommending Approval:

ENGR. GC JUNE N. GARANCHON
TSD Manager

Approved by:

ENGR. MIGUELA. PAGUNTALAN, JR.
General Manager

Construction of Distribution Lines in Sitio Zone 1, Barangay Abilay Sur, Oton

1. Bill of Materials

DESCRIPTION		PROJECT REQUIREMENTS
Attachment, Guy, Malleable Type With 11/16" Hole Diameter	"HDG and Forged Type"	9 pieces
Bolt, Double Upset, 5/8" X 10"		10 pieces
Bolt, Oval Eye, 5/8" X 9"		2 pieces
Bolt, Oval Eye, 5/8" X 10"		20 pieces
Bolt, Machine, 5/8" X 8"		23 pieces
Bolt, Machine, 5/8" X 10"		6 pieces
Bolt, Single Upset, 5/8" X 8"		7 pieces
Bolt, Single Upset, 5/8" X 10"		5 pieces
Bracket, Clevis Deadend Without Spool		4 pieces
Bracket, Mounting for Cutout		2 pieces
Bracket, Mounting for Transformer		1 set
Clamp, Hot Line, #2 - #4/0 ACSR Main to #2 - #4/0		4 pieces
Clamp, Anchor Rod Bonding, Single Eye		9 pieces
Clamp, Loop Deadend, #1/0 ACSR		44 pieces
Clamp, Deadend Strain, #1/0 ACSR		2 pieces
Clamp, Guy Straight, 3 Bolt, Heavy Duty Steel		18 pieces
Clevis, Secondary Swinging Without Spool		22 pieces
Conductor, 23 kv Insulated, Tree Wire, ACSR/AW -TR/OC-SB #1/0, AWG 6/1 (Meters)		679 meters
Conductor, Bare, ACSR #1/0, AWG 6/1 (Meters)		1,386 meters
Conductor, Insulated, ACSR #2/0, AWG 6/1 (600 V)		1,386 meters
Connector, Compression, YHD 250, Run #1- #4/0-Tap #6 - #2		38 pieces
Connector, Compression, YHD 300, Run #1/0 - #2/0 - Tap #1/0 - #2/0		1 piece
Connector, Compression, YHD 400, Run #2/0 - #4/0 - Tap #2/0 - #410		4 pieces
Connector, Ground Rod (Clamp) For 5/8" Steel Rod		17 pieces
Fuse Cut-out & Arrester Combination, 15KV, Class 100		2 sets
Insulator, Pin Type, Porcelain, ANSI, Class 55 - 5		8 pieces
Insulator, Spool, 1-3/4", ANSI, Class 53 - 2		32 pieces
Insulator, Spool, 3", ANSI, Class 53 - 4		16 pieces
Insulator, Suspension, 6", Porcelain, Clevis Type		4 pieces
Link, Fuse, Universal, Bottom Head, 2 Amperes, Std.		1 piece
Link, Fuse, Universal, Bottom Head, Type K, 6A		1 piece
Nut, Eye, 5/8", Conventional		10 pieces
Nut, Lock, Mf Type, 5/8"		65 pieces
Pin, Pole Top, Channel, 1" Thread, 20" Long		8 pieces
Rod, Anchor, Threaded, Single Eye, 5/8" X 7'		9 pieces
Rod, Armor, Preformed, #1/0 ACSR, Single Support		12 sets
Rod, Armor, Preformed, #2/0 ACSR, Single Support		14 sets
Rod, Ground Steel, Galvanized, 5/8" X 10'		17 pieces
Stirrup, #1/0-#2/0		2 pieces
Transformer, Pole Type, Conventional, Amorphous, 10 KVA		1 unit
Washer, Square, Flat, 2-1/4" X 2-1/4" X 3/16", 13/16" Diameter Hole		65 pieces
Washer, Square, Flat, 4" X 4" X 1/2" With 7/8" Diameter Hole		9 pieces
Wire, Tie, Insulated, ACSR, #6 AWG,		188 feet
Wire, Grounding, Aluminum Alloy, 3 Strand, #4 AWG		51 feet
Wire, Guy, Steel, 3/8", 7 Strand		450 feet
CONCRETE/STEEL MATERIAL		
Pole, Steel, 35', Standard		17 pieces
Block, Anchor, Concrete		9 pieces

ASSEMBLY UNITS	QUANTITY
I. POLE TOP ASSEMBLY UNITS	
A1	7
A5	1
A5-4	1

II. TRANSFORMER ASSEMBLY UNITS

G9	1

III. GROUNDING ASSEMBLY UNITS

M2-11A	17

IV. GUY ASSEMBLY UNITS

E1-2	9

V. ANCHOR ASSEMBLY UNITS

F2-1	9

VI. SECONDARY ASSEMBLY UNITS

J5	10
J6	12
J8	5
J10	4
J15	8

VII. POLE

35 Feet	17

VIII. CONDUCTOR ASSEMBLY

BARE

#1/0, AWG, ASCR	1.386 Kms.

INSULATED

#1/0, AWG, ASCR (Tree Wire)	0.679 Kms.
#1/0, AWG	0.679 Kms.
#2/0, AWG	1.386 Kms.

IX. MISCELLANEOUS ASSEMBLY UNITS

M3-1A	2
M5-1	2

2. HOUSE WIRING

DESCRIPTION	PROJECT REQUIREMENTS
Conductor, Duplex, #6, AWG	450 meters
Connector, Compression, YHO 100, #6 - #2 ACSR Run To #6 - #2	30 pieces
Meter, KWH, 1 Phase, Class 1, 240 V, 10(60) A, Electronic, Bottom Connected	15 pieces
Housewiring	15 sets

(1 set - Circuit Breaker or Safety Switch (30 Amps.); 2 pcs. - Receptacles; 2 pcs. - CFL Bulb (15W); 2 sets - Tumbler Switch
1 set - Convenience Outlet (2 gang); 2 pcs. - Junction Box (plastic with cover); 5 meters - PDX Wire #10
10 meters - PDX Wire #12; 10 meters - PDX Wire #14; 1 pc. - Electrical Tape (big) and 30 pcs. - Staple Wire)

ASSEMBLY UNITS	QUANTITY
I. CONDUCTOR ASSEMBLY	
DUPLEX	
#6D, AWG	0.450 Kms.
II. MISCELLANEOUS ASSEMBLY UNITS	
Housewiring Installations	15

Prepared by:

ENGR. KARL JUNE T. TAYO
Design and Planning Section Head

Reviewed by:

ENGR. JERRY D. DIGNOS
ESD Chief

Recommending Approval:

ENGR. GC JUNE N. GARANCHON
TSD Manager

Approved by:

ENGR. MIGUEL A. PAGUNTALAN, JR.
General Manager

Construction of Distribution Lines in Sitio Bugnay, Barangay Oluangan, Leon

1. Bill of Materials

DESCRIPTION		PROJECT REQUIREMENTS
Attachment, Guy, Malleable Type With 11/16" Hole Diameter	"HDG and Forged Type"	15 pieces
Bolt, Double Upset, 5/8" X 10"		1 piece
Bolt, Oval Eye, 5/8" X 9"		22 pieces
Bolt, Oval Eye, 5/8" X 10"		16 pieces
Bolt, Oval Eye, 5/8" X 18"		1 piece
Bolt, Machine, 5/8" X 8"		17 pieces
Bolt, Machine, 5/8" X 10"		10 pieces
Bolt, Single Upset, 5/8" X 8"		1 piece
Bracket, Clevis Deadend Without Spool		8 pieces
Bracket, Mounting for Cutout		2 pieces
Bracket, Mounting for Transformer		1 set
Clamp, Hot Line, #2 - #4/0 ACSR Main to #2 - #4/0		9 pieces
Clamp, Anchor Rod Bonding, Single Eye		15 pieces
Clamp, Loop Deadend, #1/0 ACSR		54 pieces
Clamp, Deadend Strain, #1/0 ACSR		11 pieces
Clamp, Guy Straight, 3 Bolt, Heavy Duty Steel		30 pieces
Clevis, Secondary Swinging Without Spool		27 pieces
Shackle, Anchor, Forged Steel, Galvanized		1 piece
Conductor, 23 kv Insulated, Tree Wire, ACSR/AW -TR/OC-SB #1/0, AWG 6/1 (Meters)		578 meters
Conductor, Bare, ACSR #1/0, AWG 6/1 (Meters)		1,125 meters
Conductor, Insulated, ACSR #2/0, AWG 6/1 (600 V)		1,125 meters
Connector, Compression, YHD 250, Run #1- #4/0-Tap #6 - #2		45 pieces
Connector, Compression, YHD 300, Run #1/0 - #2/0 - Tap #1/0 - #2/0		1 piece
Connector, Compression, YHD 400, Run #2/0 - #4/0 - Tap #2/0 - #410		9 pieces
Connector, Ground Rod (Clamp) For 5/8" Steel Rod		13 pieces
Fuse Cut-out & Arrester Combination, 15KV, Class 100		2 sets
Insulator, Pin Type, Porcelain, ANSI, Class 55 - 5		2 piece
Insulator, Spool, 1-3/4", ANSI, Class 53 - 2		15 pieces
Insulator, Spool, 3", ANSI, Class 53 - 4		22 pieces
Insulator, Suspension, 6", Porcelain, Clevis Type		22 pieces
Link, Fuse, Universal, Bottom Head, 2 Amperes, Std.		1 piece
Link, Fuse, Universal, Bottom Head, Type K, 6A		1 piece
Nut, Eye, 5/8", Conventional		3 pieces
Nut, Lock, Mf Type, 5/8"		63 pieces
Pin, Pole Top, Channel, 1" Thread, 20" Long		2 piece
Rod, Anchor, Threaded, Single Eye, 5/8" X 7'		15 pieces
Rod, Armor, Preformed, #1/0 ACSR, Single Support		1 set
Rod, Armor, Preformed, #2/0 ACSR, Single Support		9 sets
Rod, Ground Steel, Galvanized, 5/8" X 10'		13 pieces
Stirrup, #1/0-#2/0		2 pieces
Transformer, Pole Type, Conventional, Amorphous, 10 KVA		1 unit
Washer, Square, Flat, 2-1/4" X 2-1/4" X 3/16", 13/16" Diameter Hole		63 pieces
Washer, Square, Flat, 4" X 4" X 1/2" With 7/8" Diameter Hole		15 pieces
Wire, Tie, Insulated, ACSR, #6 AWG,		52 feet
Wire, Grounding, Aluminum Alloy, 3 Strand, #4 AWG		81 feet
Wire, Guy, Steel, 3/8", 7 Strand		750 feet
CONCRETE/STEEL MATERIAL		
Pole, Steel, 35', Standard		13 pieces
Block, Anchor, Concrete		15 pieces
Crossarm, Steel, 8'		1 pieces

ASSEMBLY UNITS	QUANTITY
I. POLE TOP ASSEMBLY UNITS	
A1	1
A4	5
A5-2	1
II. TRANSFORMER ASSEMBLY UNITS	
G10	1
III. GROUNDING ASSEMBLY UNITS	
M2-11A	13
IV. GUY ASSEMBLY UNITS	
E1-2	15
V. ANCHOR ASSEMBLY UNITS	
F2-1	15
VI. SECONDARY ASSEMBLY UNITS	
J5	1
J6	14
J10	8
J15	2
VII. POLE	
35 Feet	13
VIII. CONDUCTOR ASSEMBLY	
BARE	
#1/0, AWG, ASCR	1.125 Kms.
INSULATED	
#1/0, AWG, ASCR (Tree Wire)	0.578 Kms.
#1/0, AWG	0.578 Kms.
#2/0, AWG	1.125 Kms.
IX. MISCELLANEOUS ASSEMBLY UNITS	
M3-1A	2
M5-1	2
M5-2	1

2. HOUSE WIRING

DESCRIPTION	PROJECT REQUIREMENTS
Conductor, Duplex, #6, AWG	510 meters
Connector, Compression, YHO 100, #6 - #2 ACSR Run To #6 - #2	34 pieces
Meter, KWH, 1 Phase, Class 1, 240 V, 10(60) A, Electronic, Bottom Connected	17 pieces
Housewiring	17 sets

(1 set - Circuit Breaker or Safety Switch (30 Amps.); 2 pcs. - Receptacles; 2 pcs. - CFL Bulb (15W); 2 sets - Tumbler Switch
1 set - Convenience Outlet (2 gang); 2 pcs. - Junction Box (plastic with cover); 5 meters - PDX Wire #10
10 meters - PDX Wire #12; 10 meters - PDX Wire #14; 1 pc. - Electrical Tape (big) and 30 pcs. - Staple Wire)

ASSEMBLY UNITS	QUANTITY
I. CONDUCTOR ASSEMBLY	
DUPLEX	
#6D, AWG	0.510 Kms.
II. MISCELLANEOUS ASSEMBLY UNITS	
Housewiring Installations	17

Prepared by:

ENGR. KARL JUNE T. TAYO
Design and Planning Section Head

Reviewed by:

ENGR. JERRY D. DIGNOS
ESD Chief

Recommending Approval:

ENGR. GC JUNE N. GARANCHON
TSD Manager

Approved by:

ENGR. MIGUEL A. PAGUNTALAN, JR.
General Manager

Construction of Distribution Lines in Sitio Abang Ilaya, Barangay Buga, Igbaras

1. Bill of Materials

DESCRIPTION		PROJECT REQUIREMENTS
Attachment, Guy, Malleable Type With 11/16" Hole Diameter	"HDG and Forged Type"	14 pieces
Bolt, Oval Eye, 5/8" X 9"		12 pieces
Bolt, Oval Eye, 5/8" X 10"		12 pieces
Bolt, Machine, 5/8" X 8"		14 pieces
Bolt, Machine, 5/8" X 10"		20 pieces
Bolt, Machine, 5/8" X 12"		12 pieces
Bracket, Clevis Deadend Without Spool		18 pieces
Bracket, Mounting for Cutout		2 pieces
Bracket, Mounting for Transformer		1 set
Clamp, Hot Line, #2 - #4/0 ACSR Main to #2 - #4/0		6 pieces
Clamp, Anchor Rod Bonding, Single Eye		14 pieces
Clamp, Loop Deadend, #2/0 ACSR		32 pieces
Clamp, Deadend Strain, #4/0 ACSR		6 pieces
Clamp, Guy Straight, 3 Bolt, Heavy Duty Steel		28 pieces
Clevis, Secondary Swinging Without Spool		18 pieces
Conductor, 23 kv Insulated, Tree Wire, ACSR/AW -TR/OC-SB #1/0, AWG 6/1 (M		661 meters
Conductor, Bare, ACSR #1/0, AWG 6/1 (Meters)		1,150 meters
Conductor, Insulated, ACSR #2/0, AWG 6/1 (600 V)		1,150 meters
Connector, Compression, YHD 300, Run #1/0 - #2/0 - Tap #1/0 - #2/0		45 pieces
Connector, Compression, YHD 400, Run #2/0 - #4/0 - Tap #2/0 - #410		6 pieces
Connector, Ground Rod (Clamp) For 5/8" Steel Rod		14 pieces
Fuse Cut-out & Arrester Combination, 15KV, Class 100		2 sets
Insulator, Pin Type, Porcelain, ANSI, Class 55 - 5		12 pieces
Insulator, Spool, 1-3/4", ANSI, Class 53 - 2		14 pieces
Insulator, Spool, 3", ANSI, Class 53 - 4		22 pieces
Insulator, Suspension, 6", Porcelain, Clevis Type		12 pieces
Link, Fuse, Universal, Bottom Head, 2 Amperes, Std.		1 piece
Link, Fuse, Universal, Bottom Head, Type K, 6A		1 piece
Nut, Lock, Mf Type, 5/8"		68 pieces
Nut, Lock, Mf Type, 3/4"		18 pieces
Pin, Pole Top, Channel, 1" Thread, 20" Long		12 pieces
Stirrup, #1/0-#2/0		2 pieces
Rod, Anchor, Threaded, Single Eye, 5/8" X 7'		14 pieces
Rod, Armor, Preformed, #1/0 ACSR, Single Support		6 set
Rod, Armor, Preformed, #2/0 ACSR, Single Support		14 sets
Rod, Ground Steel, Galvanized, 5/8" X 10'		14 pieces
Spacer, Pipe, 3/4" X 1-1/2"		12 pieces
Transformer, Pole Type, Conventional, Amorphous, 10 KVA		1 unit
Washer, Square, Flat, 2-1/4" X 2-1/4" X 3/16", 13/16" Diameter Hole		56 pieces
Washer, Square, Flat, 4" X 4" X 1/2" With 7/8" Diameter Hole		14 pieces
Wire, Tie, Insulated, ACSR, #6 AWG,		200 feet
Wire, Grounding, Aluminum Alloy, 3 Strand, #4 AWG		76 feet
Wire, Guy, Steel, 3/8", 7 Strand		700 feet
CONCRETE/STEEL MATERIAL		
Pole, Steel, 35', Standard		14 pieces
Block, Anchor, Concrete		14 pieces

ASSEMBLY UNITS	QUANTITY
I. POLE TOP ASSEMBLY UNITS	
A2	6

A4	2
A5	1
A5-1	1

II. TRANSFORMER ASSEMBLY UNITS

G106	1

III. GROUNDING ASSEMBLY UNITS

M2-11A	14

IV. GUY ASSEMBLY UNITS

E1-2	14

V. ANCHOR ASSEMBLY UNITS

F2-1	14

VI. SECONDARY ASSEMBLY UNITS

J6	10
J7	2
J10	12

VII. POLE

35 Feet	14

VIII. CONDUCTOR ASSEMBLY

BARE

#1/0, AWG, ASCR	1.150	Kms.

INSULATED

#1/0, AWG, ASCR (Tree Wire)	0.661	Kms.
#1/0, AWG	1.150	Kms.

IX. MISCELLANEOUS ASSEMBLY UNITS

M3-1A	2
M5-1	2

2. HOUSE WIRING

DESCRIPTION	PROJECT REQUIREMENTS
Conductor, Duplex, #6, AWG	390 meters
Connector, Compression, YHO 100, #6 - #2 ACSR Run To #6 - #2	26 pieces
Meter, KWH, 1 Phase, Class 1, 240 V, 10(60) A, Electronic, Bottom Connected	13 pieces
Housewiring	13 sets

(1 set - Circuit Breaker or Safety Switch (30 Amps.); 2 pcs. - Receptacles; 2 pcs. - CFL Bulb (15W); 2 sets - Tumbler Switch
1 set - Convenience Outlet (2 gang); 2 pcs. - Junction Box (plastic with cover); 5 meters - PDX Wire #10
10 meters - PDX Wire #12; 10 meters - PDX Wire #14; 1 pc. - Electrical Tape (big) and 30 pcs. - Staple Wire)

ASSEMBLY UNITS	QUANTITY
I. CONDUCTOR ASSEMBLY	
DUPLEX	
#6D, AWG	0.390 Kms.
II. MISCELLANEOUS ASSEMBLY UNITS	
Housewiring Installations	13

Prepared by:

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Reviewed by:

ENGR. JERRY D. DIGNOS
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Recommending Approval:

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TSD Manager

Approved by:

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General Manager

Construction of Distribution Lines in Sitio Upper Caragmayan, Barangay Buga, Igbaras

1. Bill of Materials

DESCRIPTION		PROJECT REQUIREMENTS	
Attachment, Guy, Malleable Type With 11/16" Hole Diameter	"HDG and Forged Type"	12	pieces
Bolt, Double Upset, 5/8" X 10"		8	pieces
Bolt, Oval Eye, 5/8" X 9"		10	pieces
Bolt, Oval Eye, 5/8" X 10"		9	pieces
Bolt, Machine, 5/8" X 8"		18	pieces
Bolt, Machine, 5/8" X 10"		13	pieces
Bolt, Machine, 5/8" X 12"		6	pieces
Bolt, Single Upset, 5/8" X 8"		3	pieces
Bolt, Single Upset, 5/8" X 10"		3	pieces
Bracket, Clevis Deadend Without Spool		11	pieces
Bracket, Mounting for Cutout		2	pieces
Bracket, Mounting for Transformer		1	set
Clamp, Hot Line, #2 - #4/0 ACSR Main to #2 - #4/0		5	pieces
Clamp, Anchor Rod Bonding, Single Eye		12	pieces
Clamp, Loop Deadend, #2/0 ACSR		26	pieces
Clamp, Deadend Strain, #4/0 ACSR		6	pieces
Clamp, Guy Straight, 3 Bolt, Heavy Duty Steel		24	pieces
Clevis, Secondary Swinging Without Spool		15	pieces
Conductor, 23 kv Insulated, Tree Wire, ACSR/AW -TR/OC-SB #1/0, AWG 6/1 (Meters)		828	meters
Conductor, Bare, ACSR #1/0, AWG 6/1 (Meters)		1,501	meters
Conductor, Insulated, ACSR #2/0, AWG 6/1 (600 V)		1,501	meters
Connector, Compression, YHD 300, Run #1/0 - #2/0 - Tap #1/0 - #2/0		45	pieces
Connector, Compression, YHD 400, Run #2/0 - #4/0 - Tap #2/0 - #410		6	pieces
Connector, Ground Rod (Clamp) For 5/8" Steel Rod		18	pieces
Fuse Cut-out & Arrester Combination, 15KV, Class 100		2	sets
Insulator, Pin Type, Porcelain, ANSI, Class 55 - 5		10	pieces
Insulator, Spool, 1-3/4", ANSI, Class 53 - 2		25	pieces
Insulator, Spool, 3", ANSI, Class 53 - 4		15	pieces
Insulator, Suspension, 6", Porcelain, Clevis Type		12	pieces
Link, Fuse, Universal, Bottom Head, 2 Amperes, Std.		1	piece
Link, Fuse, Universal, Bottom Head, Type K, 6A		1	piece
Nut, Eye, 5/8", Conventional		2	pieces
Nut, Lock, Mf Type, 5/8"		68	pieces
Nut, Lock, Mf Type, 3/4"		9	pieces
Pin, Pole Top, Channel, 1" Thread, 20" Long		10	pieces
Stirrup, #1/0-#2/0		2	pieces
Rod, Anchor, Threaded, Single Eye, 5/8" X 7'		12	pieces
Rod, Armor, Preformed, #1/0 ACSR, Single Support		6	set
Rod, Armor, Preformed, #2/0 ACSR, Single Support		18	sets
Rod, Ground Steel, Galvanized, 5/8" X 10'		18	pieces
Spacer, Pipe, 3/4" X 1-1/2"		6	pieces
Transformer, Pole Type, Conventional, Amorphous, 10 KVA		1	unit
Washer, Square, Flat, 2-1/4" X 2-1/4" X 3/16", 13/16" Diameter Hole		66	pieces
Washer, Square, Flat, 4" X 4" X 1/2" With 7/8" Diameter Hole		12	pieces
Wire, Tie, Insulated, ACSR, #6 AWG,		212	feet
Wire, Grounding, Aluminum Alloy, 3 Strand, #4 AWG		66	feet
Wire, Guy, Steel, 3/8", 7 Strand		600	feet
CONCRETE/STEEL MATERIAL			
Pole, Steel, 35', Standard		18	pieces
Block, Anchor, Concrete		12	pieces

ASSEMBLY UNITS	QUANTITY
I. POLE TOP ASSEMBLY UNITS	
A1	3
A2	3
A4	1
A5	1
A5-1	1
A6	1
II. TRANSFORMER ASSEMBLY UNITS	
G106	1
III. GROUNDING ASSEMBLY UNITS	
M2-11A	18
IV. GUY ASSEMBLY UNITS	
E1-2	12
V. ANCHOR ASSEMBLY UNITS	
F2-1	12
VI. SECONDARY ASSEMBLY UNITS	
J5	8
J6	7
J7	2
J8	3
J10	8
VII. POLE	
35 Feet	18
VIII. CONDUCTOR ASSEMBLY	
BARE	
#1/0, AWG, ASCR	1.501 Kms.
INSULATED	
#1/0, AWG, ASCR (Tree Wire)	0.828 Kms.
#1/0, AWG	1.501 Kms.
IX. MISCELLANEOUS ASSEMBLY UNITS	
M3-1A	2
M5-1	2

2. HOUSE WIRING

DESCRIPTION	PROJECT REQUIREMENTS
Conductor, Duplex, #6, AWG	570 meters
Connector, Compression, YHO 100, #6 - #2 ACSR Run To #6 - #2	38 pieces
Meter, KWH, 1 Phase, Class 1, 240 V, 10(60) A, Electronic, Bottom Connected	19 pieces
Housewiring	19 sets

(1 set - Circuit Breaker or Safety Switch (30 Amps.); 2 pcs. - Receptacles; 2 pcs. - CFL Bulb (15W); 2 sets - Tumbler Switch
1 set - Convenience Outlet (2 gang); 2 pcs. - Junction Box (plastic with cover); 5 meters - PDX Wire #10
10 meters - PDX Wire #12; 10 meters - PDX Wire #14; 1 pc. - Electrical Tape (big) and 30 pcs. - Staple Wire)

ASSEMBLY UNITS	QUANTITY
I. CONDUCTOR ASSEMBLY	
DUPLEX	
#6D, AWG	0.570 Kms.
II. MISCELLANEOUS ASSEMBLY UNITS	
Housewiring Installations	19

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Reviewed by:

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ESD Chief

Recommending Approval:

ENGR. GC JUNE N. GARANCHON
TSD Manager

Approved by:

ENGR. MIGUEL A. PAGUNTALAN, JR.
General Manager

Construction of Distribution Lines in Sitio Lower Tamo-Oc, Barangay Buga, Igbaras

1. Bill of Materials

DESCRIPTION		PROJECT REQUIREMENTS
Attachment, Guy, Malleable Type With 11/16" Hole Diameter	"HDG and Forged Type"	12 pieces
Bolt, Double Upset, 5/8" X 10"		2 pieces
Bolt, Oval Eye, 5/8" X 9"		12 pieces
Bolt, Oval Eye, 5/8" X 10"		16 pieces
Bolt, Machine, 5/8" X 8"		14 pieces
Bolt, Machine, 5/8" X 10"		8 pieces
Bolt, Machine, 5/8" X 12"		4 pieces
Bolt, Single Upset, 5/8" X 8"		1 piece
Bolt, Single Upset, 5/8" X 10"		1 piece
Bracket, Clevis Deadend Without Spool		6 pieces
Bracket, Mounting for Cutout		2 pieces
Bracket, Mounting for Transformer		1 set
Clamp, Hot Line, #2 - #4/0 ACSR Main to #2 - #4/0		6 pieces
Clamp, Anchor Rod Bonding, Single Eye		12 pieces
Clamp, Loop Deadend, #2/0 ACSR		44 pieces
Clamp, Deadend Strain, #4/0 ACSR		6 pieces
Clamp, Guy Straight, 3 Bolt, Heavy Duty Steel		24 pieces
Clevis, Secondary Swinging Without Spool		22 pieces
Conductor, 23 kv Insulated, Tree Wire, ACSR/AW -TR/OC-SB #1/0, AWG 6/1 (Meters)		483 meters
Conductor, Bare, ACSR #1/0, AWG 6/1 (Meters)		971 meters
Conductor, Insulated, ACSR #2/0, AWG 6/1 (600 V)		971 meters
Connector, Compression, YHD 300, Run #1/0 - #2/0 - Tap #1/0 - #2/0		39 pieces
Connector, Compression, YHD 400, Run #2/0 - #4/0 - Tap #2/0 - #410		6 pieces
Connector, Ground Rod (Clamp) For 5/8" Steel Rod		12 pieces
Fuse Cut-out & Arrester Combination, 15KV, Class 100		2 sets
Insulator, Pin Type, Porcelain, ANSI, Class 55 - 5		5 pieces
Insulator, Spool, 1-3/4", ANSI, Class 53 - 2		14 pieces
Insulator, Spool, 3", ANSI, Class 53 - 4		18 pieces
Insulator, Suspension, 6", Porcelain, Clevis Type		12 pieces
Link, Fuse, Universal, Bottom Head, 2 Amperes, Std.		1 piece
Link, Fuse, Universal, Bottom Head, Type K, 6A		1 piece
Nut, Eye, 5/8", Conventional		2 pieces
Nut, Lock, Mf Type, 5/8"		54 pieces
Nut, Lock, Mf Type, 3/4"		6 pieces
Pin, Pole Top, Channel, 1" Thread, 20" Long		5 pieces
Stirrup, #1/0-#2/0		2 pieces
Rod, Armor, Preformed, #1/0 ACSR, Single Support		3 set
Rod, Armor, Preformed, #2/0 ACSR, Single Support		7 sets
Rod, Anchor, Threaded, Single Eye, 5/8" X 7'		12 pieces
Rod, Ground Steel, Galvanized, 5/8" X 10'		12 pieces
Spacer, Pipe, 3/4" X 1-1/2"		4 pieces
Transformer, Pole Type, Conventional, Amorphous, 10 KVA		1 unit
Washer, Square, Flat, 2-1/4" X 2-1/4" X 3/16", 13/16" Diameter Hole		50 pieces
Washer, Square, Flat, 4" X 4" X 1/2" With 7/8" Diameter Hole		12 pieces
Wire, Tie, Insulated, ACSR, #6 AWG,		92 feet
Wire, Grounding, Aluminum Alloy, 3 Strand, #4 AWG		66 feet
Wire, Guy, Steel, 3/8", 7 Strand		600 feet
CONCRETE/STEEL MATERIAL		
Pole, Steel, 35', Standard		12 pieces
Block, Anchor, Concrete		12 pieces

ASSEMBLY UNITS	QUANTITY
I. POLE TOP ASSEMBLY UNITS	
A1	1
A2	2
A4	2
A5	1
A5-1	1
II. TRANSFORMER ASSEMBLY UNITS	
G106	1
III. GROUNDING ASSEMBLY UNITS	
M2-11A	12
IV. GUY ASSEMBLY UNITS	
E1-2	12
V. ANCHOR ASSEMBLY UNITS	
F2-1	12
VI. SECONDARY ASSEMBLY UNITS	
J5	2
J6	14
J8	1
J10	4
J15	2
VII. POLE	
35 Feet	12
VIII. CONDUCTOR ASSEMBLY	
BARE	
#1/0, AWG, ASCR	0.811 Kms.
INSULATED	
#1/0, AWG, ASCR (Tree Wire)	0.483 Kms.
#1/0, AWG	0.811 Kms.
IX. MISCELLANEOUS ASSEMBLY UNITS	
M3-1A	2
M5-1	2

2. HOUSE WIRING

DESCRIPTION	PROJECT REQUIREMENTS
Conductor, Duplex, #6, AWG	390 meters
Connector, Compression, YHO 100, #6 - #2 ACSR Run To #6 - #2	26 pieces
Meter, KWH, 1 Phase, Class 1, 240 V, 10(60) A, Electronic, Bottom Connected	13 pieces
Housewiring	13 sets

(1 set - Circuit Breaker or Safety Switch (30 Amps.); 2 pcs. - Receptacles; 2 pcs. - CFL Bulb (15W); 2 sets - Tumbler Switch
1 set - Convenience Outlet (2 gang); 2 pcs. - Junction Box (plastic with cover); 5 meters - PDX Wire #10
10 meters - PDX Wire #12; 10 meters - PDX Wire #14; 1 pc. - Electrical Tape (big) and 30 pcs. - Staple Wire)

ASSEMBLY UNITS	QUANTITY
I. CONDUCTOR ASSEMBLY	
DUPLEX	
#6D, AWG	0.390 Kms.
II. MISCELLANEOUS ASSEMBLY UNITS	
Housewiring Installations	13

Prepared by:

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Reviewed by:

ENGR. JERRY D. DIGNOS
ESD Chief

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ENGR. GC JUNE N. GARANCHON
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Approved by:

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General Manager

Construction of Distribution Lines in Sitio Calawing Sapa, Barangay Dagami, Maasin

1. Bill of Materials

DESCRIPTION		PROJECT REQUIREMENTS
Attachment, Guy, Malleable Type With 11/16" Hole Diameter	"HDG and Forged Type"	17 pieces
Bolt, Double Upset, 5/8" X 10"		3 pieces
Bolt, Oval Eye, 5/8" X 9"		6 pieces
Bolt, Oval Eye, 5/8" X 10"		16 pieces
Bolt, Oval Eye, 5/8" X 18"		1 piece
Bolt, Machine, 5/8" X 8"		23 pieces
Bolt, Machine, 5/8" X 10"		22 pieces
Bolt, Machine, 5/8" X 12"		12 pieces
Bolt, Single Upset, 5/8" X 8"		3 pieces
Bracket, Clevis Deadend Without Spool		20 pieces
Bracket, Mounting for Cutout		2 pieces
Bracket, Mounting for Transformer		1 set
Clamp, Hot Line, #2 - #4/0 ACSR Main to #2 - #4/0		2 pieces
Clamp, Anchor Rod Bonding, Single Eye		17 pieces
Clamp, Loop Deadend, #2/0 ACSR		30 pieces
Clamp, Deadend Strain, #4/0 ACSR		2 pieces
Clamp, Guy Straight, 3 Bolt, Heavy Duty Steel		34 pieces
Clamp, Suspension, Aluminum Alloy Clevis, 2 Bolts, #4/0 ACSR Max.		1 piece
Clevis, Secondary Swinging Without Spool		19 pieces
Shackle, Anchor, Forged Steel, Galvanized		2 pieces
Conductor, 23 kv Insulated, Tree Wire, ACSR/AW -TR/OC-SB #1/0, AWG 6/1 (Meters)		1,387 meters
Conductor, Bare, ACSR #1/0, AWG 6/1 (Meters)		2,612 meters
Conductor, Insulated, ACSR #2/0, AWG 6/1 (600 V)		2,612 meters
Connector, Compression, YHD 300, Run #1/0 - #2/0 - Tap #1/0 - #2/0		57 pieces
Connector, Compression, YHD 400, Run #2/0 - #4/0 - Tap #2/0 - #410		2 pieces
Connector, Ground Rod (Clamp) For 5/8" Steel Rod		20 pieces
Fuse Cut-out & Arrester Combination, 15KV, Class 100		2 sets
Insulator, Pin Type, Porcelain, ANSI, Class 55 - 5		15 pieces
Insulator, Spool, 1-3/4", ANSI, Class 53 - 2		20 pieces
Insulator, Spool, 3", ANSI, Class 53 - 4		25 pieces
Insulator, Suspension, 6", Porcelain, Clevis Type		6 pieces
Link, Fuse, Universal, Bottom Head, 2 Amperes, Std.		1 piece
Link, Fuse, Universal, Bottom Head, Type K, 6A		1 piece
Nut, Eye, 5/8", Conventional		3 pieces
Nut, Lock, Mf Type, 5/8"		81 pieces
Nut, Lock, Mf Type, 3/4"		18 pieces
Pin, Pole Top, Channel, 1" Thread, 20" Long		15 pieces
Stirrup, #1/0-#2/0		2 pieces
Rod, Anchor, Threaded, Single Eye, 5/8" X 7'		17 pieces
Rod, Armor, Preformed, #1/0 ACSR, Single Support		34 sets
Rod, Armor, Preformed, #2/0 ACSR, Single Support		6 sets
Rod, Ground Steel, Galvanized, 5/8" X 10'		20 pieces
Spacer, Pipe, 3/4" X 1-1/2"		12 pieces
Transformer, Pole Type, Conventional, Amorphous, 10 KVA		1 unit
Washer, Square, Flat, 2-1/4" X 2-1/4" X 3/16", 13/16" Diameter Hole		69 pieces
Washer, Square, Flat, 4" X 4" X 1/2" With 7/8" Diameter Hole		17 pieces
Wire, Tie, Aluminum Alloy, Soft, #4 AWG		280 feet
Wire, Tape, Armor, Aluminum Alloy, 0.5 " X 0.3"		15 feet
Wire, Grounding, Aluminum Alloy, 3 Strand, #4 AWG		91 feet
Wire, Guy, Steel, 3/8", 7 Strand		850 feet
CONCRETE/STEEL MATERIAL		
Pole, Steel, 35' (3.0mm)		20 pieces
Log, Anchor, Concrete, 8" X 4'		17 pieces

ASSEMBLY UNITS	QUANTITY
I. POLE TOP ASSEMBLY UNITS	
A1	3
A2	6
A3	1
A5	1
A5-2	1
II. TRANSFORMER ASSEMBLY UNITS	
G106	1
III. GROUNDING ASSEMBLY UNITS	
M2-11A	20
IV. GUY ASSEMBLY UNITS	
E1-2	17
V. ANCHOR ASSEMBLY UNITS	
F2-1	17
VI. SECONDARY ASSEMBLY UNITS	
J5	3
J6	11
J7	3
J10	14
J15	2
VII. POLE	
35 Feet	20
VIII. CONDUCTOR ASSEMBLY	
BARE	
#1/0, AWG, ASCR	2.612 Kms.
INSULATED	
#1/0, AWG, ASCR (Tree Wire)	1.387 Kms.
#1/0, AWG	2.612 Kms.
IX. MISCELLANEOUS ASSEMBLY UNITS	
M3-1A	2

2. HOUSE WIRING

DESCRIPTION	PROJECT REQUIREMENTS
Conductor, Duplex, #6, AWG	1,440 meters
Connector, Compression, YHO 100, #6 - #2 ACSR Run To #6 - #2	96 pieces
Meter, KWH, 1 Phase, Class 1, 240 V, 10(60) A, Electronic, Bottom Connected	48 pieces
Housewiring	48 sets

(1 set - Circuit Breaker or Safety Switch (30 Amps.); 2 pcs. - Receptacles; 2 pcs. - CFL Bulb (15W); 2 sets - Tumbler Switch
1 set - Convenience Outlet (2 gang); 2 pcs. - Junction Box (plastic with cover); 5 meters - PDX Wire #10
10 meters - PDX Wire #12; 10 meters - PDX Wire #14; 1 pc. - Electrical Tape (big) and 30 pcs. - Staple Wire)

ASSEMBLY UNITS	QUANTITY
I. CONDUCTOR ASSEMBLY	
DUPLEX	
#6D, AWG	1.440 Kms.
II. MISCELLANEOUS ASSEMBLY UNITS	
Housewiring Installations	48

Prepared by:

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Design and Planning Section Head

Reviewed by:

ENGR. JERRY D. DIGNOS
ESD Chief

Recommending Approval:

ENGR. GC JUNE N. GARANCHON
TSD Manager

Approved by:

ENGR. MIGUEL A. PAGUNTALAN, JR.
General Manager

Construction of Distribution Lines in Sitio Lawod, Barangay Gines, Leon

1. Bill of Materials

DESCRIPTION		PROJECT REQUIREMENTS
Attachment, Guy, Malleable Type With 11/16" Hole Diameter	"HDG and Forged Type"	10 pieces
Bolt, Double Upset, 5/8" X 10"		3 pieces
Bolt, Oval Eye, 5/8" X 9"		4 pieces
Bolt, Oval Eye, 5/8" X 10"		12 pieces
Bolt, Machine, 5/8" X 8"		12 pieces
Bolt, Machine, 5/8" X 10"		8 pieces
Bolt, Machine, 5/8" X 12"		2 pieces
Bolt, Single Upset, 5/8" X 8"		1 piece
Bolt, Single Upset, 5/8" X 9"		2 pieces
Bracket, Clevis Deadend Without Spool		2 pieces
Bracket, Mounting for Cutout		2 pieces
Bracket, Mounting for Transformer		1 set
Clamp, Hot Line, #2 - #4/0 ACSR Main to #2 - #4/0		3 pieces
Clamp, Anchor Rod Bonding, Single Eye		10 pieces
Clamp, Loop Deadend, #2/0 ACSR		26 pieces
Clamp, Deadend Strain, #4/0 ACSR		1 piece
Clamp, Guy Straight, 3 Bolt, Heavy Duty Steel		20 pieces
Clamp, Suspension, Aluminum Alloy Clevis, 2 Bolts, #4/0 ACSR Max.		1 piece
Clevis, Secondary Swinging Without Spool		14 pieces
Shackle, Anchor, Forged Steel, Galvanized		1 piece
Conductor, 23 kv Insulated, Tree Wire, ACSR/AW -TR/OC-SB #1/0, AWG 6/1 (Meters)		506 meters
Conductor, Bare, ACSR #1/0, AWG 6/1 (Meters)		748 meters
Conductor, Insulated, ACSR #2/0, AWG 6/1 (600 V)		748 meters
Connector, Compression, YHD 250, Run #1- #4/0-Tap #6 - #2		32 pieces
Connector, Compression, YHD 300, Run #1/0 - #2/0 - Tap #1/0 - #2/0		1 piece
Connector, Compression, YHD 400, Run #2/0 - #4/0 - Tap #2/0 - #410		2 pieces
Connector, Ground Rod (Clamp) For 5/8" Steel Rod		9 pieces
Fuse Cut-out & Arrester Combination, 15KV, Class 100		2 sets
Insulator, Pin Type, Porcelain, ANSI, Class 55 - 5		7 pieces
Insulator, Spool, 1-3/4", ANSI, Class 53 - 2		11 pieces
Insulator, Spool, 3", ANSI, Class 53 - 4		11 pieces
Insulator, Suspension, 6", Porcelain, Clevis Type		4 pieces
Link, Fuse, Universal, Bottom Head, 2 Amperes, Std.		1 piece
Link, Fuse, Universal, Bottom Head, Type K, 6A		1 piece
Nut, Eye, 5/8", Conventional		2 pieces
Nut, Lock, Mf Type, 5/8"		40 pieces
Nut, Lock, Mf Type, 3/4"		3 pieces
Pin, Pole Top, Channel, 1" Thread, 20" Long		7 pieces
Stirrup, #1/0-#2/0		2 pieces
Rod, Anchor, Threaded, Single Eye, 5/8" X 7'		10 pieces
Rod, Armor, Preformed, #1/0 ACSR, Single Support		5 set
Rod, Armor, Preformed, #2/0 ACSR, Single Support		4 sets
Rod, Ground Steel, Galvanized, 5/8" X 10'		9 pieces
Spacer, Pipe, 3/4" X 1-1/2"		6 pieces
Transformer, Pole Type, Conventional, Amorphous, 10 KVA		1 unit
Washer, Square, Flat, 2-1/4" X 2-1/4" X 3/16", 13/16" Diameter Hole		34 pieces
Washer, Square, Flat, 4" X 4" X 1/2" With 7/8" Diameter Hole		10 pieces
Wire, Tie, Insulated, ACSR, #6 AWG,		112 feet
Wire, Grounding, Aluminum Alloy, 3 Strand, #4 AWG		56 feet
Wire, Guy, Steel, 3/8", 7 Strand		500 feet
CONCRETE/STEEL MATERIAL		
Pole, Steel, 30', Standard		1 piece
Pole, Steel, 35', Standard		9 pieces
Block, Anchor, Concrete		10 pieces

ASSEMBLY UNITS	QUANTITY
I. POLE TOP ASSEMBLY UNITS	
A1	1
A1-1	2
A2	1
A3	1
A5	1
II. TRANSFORMER ASSEMBLY UNITS	
G105	1
III. GROUNDING ASSEMBLY UNITS	
M2-11A	9
IV. GUY ASSEMBLY UNITS	
E1-2	10
V. ANCHOR ASSEMBLY UNITS	
F2-1	10
VI. SECONDARY ASSEMBLY UNITS	
J5	3
J6	10
J10	1
J15	2
VII. POLE	
30 Feet	1
35 Feet	9
VIII. CONDUCTOR ASSEMBLY	
BARE	
#1/0, AWG, ASCR	0.748 Kms.
INSULATED	
#1/0, AWG, ASCR (Tree Wire)	0.506 Kms.
#2/0, AWG	0.748 Kms.
IX. MISCELLANEOUS ASSEMBLY UNITS	
M3-1A	2
M5-1	2

2. HOUSE WIRING

DESCRIPTION	PROJECT REQUIREMENTS
Conductor, Duplex, #6, AWG	300 meters
Connector, Compression, YHO 100, #6 - #2 ACSR Run To #6 - #2	20 pieces
Meter, KWH, 1 Phase, Class 1, 240 V, 10(60) A, Electronic, Bottom Connected	10 pieces
Housewiring	10 sets

(1 set - Circuit Breaker or Safety Switch (30 Amps.); 2 pcs. - Receptacles; 2 pcs. - CFL Bulb (15W); 2 sets - Tumbler Switch
1 set - Convenience Outlet (2 gang); 2 pcs. - Junction Box (plastic with cover); 5 meters - PDX Wire #10
10 meters - PDX Wire #12; 10 meters - PDX Wire #14; 1 pc. - Electrical Tape (big) and 30 pcs. - Staple Wire)

ASSEMBLY UNITS	QUANTITY
I. CONDUCTOR ASSEMBLY	
DUPLEX	
#6D, AWG	0.300 Kms.
II. MISCELLANEOUS ASSEMBLY UNITS	
Housewiring Installations	10

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TSD Manager

Approved by:

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General Manager

Construction of Distribution Lines in Sitio Zone 4, Barangay Bagumbayan, Miag-Ao

1. Bill of Materials

DESCRIPTION		PROJECT REQUIREMENTS
Attachment, Guy, Malleable Type With 11/16" Hole Diameter	"HDG and Forged Type"	12 pieces
Bolt, Double Upset, 5/8" X 10"		2 pieces
Bolt, Oval Eye, 5/8" X 9"		8 pieces
Bolt, Oval Eye, 5/8" X 10"		12 pieces
Bolt, Machine, 5/8" X 8"		16 pieces
Bolt, Machine, 5/8" X 10"		11 pieces
Bolt, Machine, 5/8" X 12"		2 pieces
Bolt, Single Upset, 5/8" X 8"		2 pieces
Bracket, Clevis Deadend Without Spool		9 pieces
Bracket, Mounting for Cutout		2 pieces
Bracket, Mounting for Transformer		1 set
Clamp, Hot Line, #2 - #4/0 ACSR Main to #2 - #4/0		5 pieces
Clamp, Anchor Rod Bonding, Single Eye		12 pieces
Clamp, Loop Deadend, #2/0 ACSR		32 pieces
Clamp, Deadend Strain, #4/0 ACSR		4 pieces
Clamp, Guy Straight, 3 Bolt, Heavy Duty Steel		24 pieces
Clevis, Secondary Swinging Without Spool		16 pieces
Conductor, 23 kv Insulated, Tree Wire, ACSR/AW -TR/OC-SB #1/0, AWG 6/1 (Meters)		420 meters
Conductor, Bare, ACSR #1/0, AWG 6/1 (Meters)		868 meters
Conductor, Insulated, ACSR #2/0, AWG 6/1 (600 V)		868 meters
Connector, Compression, YHD 250, Run #1- #4/0-Tap #6 - #2		38 pieces
Connector, Compression, YHD 300, Run #1/0 - #2/0 - Tap #1/0 - #2/0		1 piece
Connector, Compression, YHD 400, Run #2/0 - #4/0 - Tap #2/0 - #410		5 pieces
Connector, Ground Rod (Clamp) For 5/8" Steel Rod		12 pieces
Fuse Cut-out & Arrester Combination, 15KV, Class 100		2 sets
Insulator, Pin Type, Porcelain, ANSI, Class 55 - 5		4 pieces
Insulator, Spool, 1-3/4", ANSI, Class 53 - 2		15 pieces
Insulator, Spool, 3", ANSI, Class 53 - 4		14 pieces
Insulator, Suspension, 6", Porcelain, Clevis Type		8 pieces
Link, Fuse, Universal, Bottom Head, 2 Amperes, Std.		1 piece
Link, Fuse, Universal, Bottom Head, Type K, 6A		1 piece
Nut, Eye, 5/8", Conventional		6 pieces
Nut, Lock, Mf Type, 5/8"		45 pieces
Nut, Lock, Mf Type, 3/4"		3 pieces
Pin, Pole Top, Channel, 1" Thread, 20" Long		4 pieces
Stirrup, #1/0-#2/0		2 pieces
Rod, Anchor, Threaded, Single Eye, 5/8" X 7'		12 pieces
Rod, Armor, Preformed, #1/0 ACSR, Single Support		3 set
Rod, Armor, Preformed, #2/0 ACSR, Single Support		10 sets
Rod, Ground Steel, Galvanized, 5/8" X 10'		12 pieces
Spacer, Pipe, 3/4" X 1-1/2"		2 pieces
Transformer, Pole Type, Conventional, Amorphous, 10 KVA		1 unit
Washer, Square, Flat, 2-1/4" X 2-1/4" X 3/16", 13/16" Diameter Hole		43 pieces
Washer, Square, Flat, 4" X 4" X 1/2" With 7/8" Diameter Hole		12 pieces
Wire, Tie, Aluminum Alloy, Soft, #4 AWG		96 feet
Wire, Tape, Armor, Aluminum Alloy, 0.5 " X 0.3"		16 feet
Wire, Grounding, Aluminum Alloy, 3 Strand, #4 AWG		66 feet
Wire, Guy, Steel, 3/8", 7 Strand		600 feet

CONCRETE/STEEL MATERIAL

Pole, Steel, 35', Standard	12 pieces
Block, Anchor, Concrete	12 pieces

ASSEMBLY UNITS	QUANTITY
I. POLE TOP ASSEMBLY UNITS	
A1	2
A2	1
A4	1
A5	1
A5-1	1
II. TRANSFORMER ASSEMBLY UNITS	
G106	1
III. GROUNDING ASSEMBLY UNITS	
M2-11A	12
IV. GUY ASSEMBLY UNITS	
E1-2	12
V. ANCHOR ASSEMBLY UNITS	
F2-1	12
VI. SECONDARY ASSEMBLY UNITS	
J5	2
J6	6
J10	8
J15	6
VII. POLE	
35 Feet	12
VIII. CONDUCTOR ASSEMBLY	
BARE	
#1/0, AWG, ASCR	0.868 Kms.
INSULATED	
#1/0, AWG, ASCR (Tree Wire)	0.420 Kms.
#2/0, AWG	0.868 Kms.
IX. MISCELLANEOUS ASSEMBLY UNITS	
M3-1A	2
M5-1	2

2. HOUSE WIRING

DESCRIPTION	PROJECT REQUIREMENTS
Conductor, Duplex, #6, AWG	330 meters
Connector, Compression, YHO 100, #6 - #2 ACSR Run To #6 - #2	22 pieces
Meter, KWH, 1 Phase, Class 1, 240 V, 10(60) A, Electronic, Bottom Connected	11 pieces
Housewiring	11 sets

(1 set - Circuit Breaker or Safety Switch (30 Amps.); 2 pcs. - Receptacles; 2 pcs. - CFL Bulb (15W); 2 sets - Tumbler Switch
1 set - Convenience Outlet (2 gang); 2 pcs. - Junction Box (plastic with cover); 5 meters - PDX Wire #10
10 meters - PDX Wire #12; 10 meters - PDX Wire #14; 1 pc. - Electrical Tape (big) and 30 pcs. - Staple Wire)

ASSEMBLY UNITS	QUANTITY
I. CONDUCTOR ASSEMBLY	
DUPLEX	
#6D, AWG	0.330 Kms.
II. MISCELLANEOUS ASSEMBLY UNITS	
Housewiring Installations	11

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Reviewed by:

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ESD Chief

Recommending Approval:

ENGR. GC JUNE N. GARANCHON
TSD Manager

Approved by:

ENGR. MIGUEL A. PAGUNTALAN, JR.
General Manager

Construction of Distribution Lines in Sitio Biga-A, Barangay Danao, Tigbauan

1. Bill of Materials

DESCRIPTION		PROJECT REQUIREMENTS	
Attachment, Guy, Malleable Type With 11/16" Hole Diameter	"HDG and Forged Type"	11	pieces
Bolt, Double Upset, 5/8" X 10"		2	pieces
Bolt, Oval Eye, 5/8" X 9"		8	pieces
Bolt, Oval Eye, 5/8" X 10"		11	pieces
Bolt, Machine, 5/8" X 8"		11	pieces
Bolt, Machine, 5/8" X 10"		8	pieces
Bolt, Machine, 5/8" X 12"		4	pieces
Bolt, Single Upset, 5/8" X 10"		1	piece
Bracket, Clevis Deadend Without Spool		6	pieces
Bracket, Mounting for Cutout		2	pieces
Bracket, Mounting for Transformer		1	set
Clamp, Hot Line, #2 - #4/0 ACSR Main to #2 - #4/0		4	pieces
Clamp, Anchor Rod Bonding, Single Eye		11	pieces
Clamp, Loop Deadend, #2/0 ACSR		26	pieces
Clamp, Deadend Strain, #4/0 ACSR		2	pieces
Clamp, Guy Straight, 3 Bolt, Heavy Duty Steel		22	pieces
Clamp, Suspension, Aluminum Alloy Clevis, 2 Bolts, #4/0 ACSR Max.		2	pieces
Clevis, Secondary Swinging Without Spool		15	pieces
Shackle, Anchor, Forged Steel, Galvanized		2	pieces
Conductor, 23 kv Insulated, Tree Wire, ACSR/AW -TR/OC-SB #1/0, AWG 6/1 (Meters)		426	meters
Conductor, Bare, ACSR #1/0, AWG 6/1 (Meters)		1,035	meters
Conductor, Insulated, ACSR #2/0, AWG 6/1 (600 V)		1,035	meters
Connector, Compression, YHD 250, Run #1- #4/0-Tap #6 - #2		37	pieces
Connector, Compression, YHD 300, Run #1/0 - #2/0 - Tap #1/0 - #2/0		1	piece
Connector, Compression, YHD 400, Run #2/0 - #4/0 - Tap #2/0 - #410		4	pieces
Connector, Ground Rod (Clamp) For 5/8" Steel Rod		13	pieces
Fuse Cut-out & Arrester Combination, 15KV, Class 100		2	sets
Insulator, Pin Type, Porcelain, ANSI, Class 55 - 5		4	pieces
Insulator, Spool, 1-3/4", ANSI, Class 53 - 2		10	pieces
Insulator, Spool, 3", ANSI, Class 53 - 4		14	pieces
Insulator, Suspension, 6", Porcelain, Clevis Type		8	pieces
Link, Fuse, Universal, Bottom Head, 2 Amperes, Std.		1	piece
Link, Fuse, Universal, Bottom Head, Type K, 6A		1	piece
Nut, Eye, 5/8", Conventional		1	piece
Nut, Lock, Mf Type, 5/8"		42	pieces
Nut, Lock, Mf Type, 3/4"		6	pieces
Pin, Pole Top, Channel, 1" Thread, 20" Long		4	pieces
Rod, Anchor, Threaded, Single Eye, 5/8" X 7'		11	pieces
Rod, Ground Steel, Galvanized, 5/8" X 10'		13	pieces
Spacer, Pipe, 3/4" X 1-1/2"		4	pieces
Stirrup, #1/0-#2/0		2	pieces
Transformer, Pole Type, Conventional, Amorphous, 10 KVA		1	unit
Washer, Square, Flat, 2-1/4" X 2-1/4" X 3/16", 13/16" Diameter Hole		38	pieces
Washer, Square, Flat, 4" X 4" X 1/2" With 7/8" Diameter Hole		11	pieces
Wire, Tie, Aluminum Alloy, Soft, #4 AWG		92	feet
Wire, Tape, Armor, Aluminum Alloy, 0.5 " X 0.3"		13	feet
Wire, Grounding, Aluminum Alloy, 3 Strand, #4 AWG		61	feet
Wire, Guy, Steel, 3/8", 7 Strand		550	feet
CONCRETE/STEEL MATERIAL			
Pole, Steel, 35', Standard		13	pieces
Block, Anchor, Concrete		11	pieces

ASSEMBLY UNITS	QUANTITY
I. POLE TOP ASSEMBLY UNITS	
A2	2
A3	2
A5	1
A5-1	1
II. TRANSFORMER ASSEMBLY UNITS	
G106	1
III. GROUNDING ASSEMBLY UNITS	
M2-11A	13
IV. GUY ASSEMBLY UNITS	
E1-2	11
V. ANCHOR ASSEMBLY UNITS	
F2-1	11
VI. SECONDARY ASSEMBLY UNITS	
J5	2
J6	10
J8	1
J10	4
J15	1
VII. POLE	
35 Feet	13
VIII. CONDUCTOR ASSEMBLY	
BARE	
#1/0, AWG, ASCR	1.035 Kms.
INSULATED	
#1/0, AWG, ASCR (Tree Wire)	0.426 Kms.
#2/0, AWG	1.035 Kms.
IX. MISCELLANEOUS ASSEMBLY UNITS	
M3-1A	2
M5-1	2

2. HOUSE WIRING

DESCRIPTION	PROJECT REQUIREMENTS
Conductor, Duplex, #6, AWG	420 meters
Connector, Compression, YHO 100, #6 - #2 ACSR Run To #6 - #2	28 pieces
Meter, KWH, 1 Phase, Class 1, 240 V, 10(60) A, Electronic, Bottom Connected	14 pieces
Housewiring	14 sets

(1 set - Circuit Breaker or Safety Switch (30 Amps.); 2 pcs. - Receptacles; 2 pcs. - CFL Bulb (15W); 2 sets - Tumbler Switch 1 set - Convenience Outlet (2 gang); 2 pcs. - Junction Box (plastic with cover); 5 meters - PDX Wire #10 10 meters - PDX Wire #12; 10 meters - PDX Wire #14; 1 pc. - Electrical Tape (big) and 30 pcs. - Staple Wire)

ASSEMBLY UNITS	QUANTITY
I. CONDUCTOR ASSEMBLY	
DUPLEX	
#6D, AWG	0.420 Kms.
II. MISCELLANEOUS ASSEMBLY UNITS	
Housewiring Installations	14

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Construction of Distribution Lines in Sitio Zone 7, Barangay Ito Norte, Cabatuan

1. Bill of Materials

DESCRIPTION		PROJECT REQUIREMENTS
Attachment, Guy, Malleable Type With 11/16" Hole Diameter	"HDG and Forged Type"	18 pieces
Bolt, Double Upset, 5/8" X 10"		1 piece
Bolt, Oval Eye, 5/8" X 9"		20 pieces
Bolt, Oval Eye, 5/8" X 10"		11 pieces
Bolt, Machine, 5/8" X 8"		20 pieces
Bolt, Machine, 5/8" X 10"		19 pieces
Bolt, Machine, 5/8" X 12"		16 pieces
Bolt, Single Upset, 5/8" X 8"		1 piece
Bracket, Clevis Deadend Without Spool		17 pieces
Bracket, Mounting for Cutout		2 pieces
Bracket, Mounting for Transformer		1 set
Clamp, Hot Line, #2 - #4/0 ACSR Main to #2 - #4/0		6 pieces
Clamp, Anchor Rod Bonding, Single Eye		18 pieces
Clamp, Loop Deadend, #1/0 ACSR		32 pieces
Clamp, Deadend Strain, #1/0 ACSR		8 pieces
Clamp, Guy Straight, 3 Bolt, Heavy Duty Steel		36 pieces
Clamp, Suspension, Aluminum Alloy Clevis, 2 Bolts, #4/0 ACSR Max.		3 pieces
Clevis, Secondary Swinging Without Spool		22 pieces
Shackle, Anchor, Forged Steel, Galvanized		3 pieces
Conductor, 23 kv Insulated, Tree Wire, ACSR/AW -TR/OC-SB #1/0, AWG 6/1 (Meters)		1,294 meters
Conductor, Bare, ACSR #1/0, AWG 6/1 (Meters)		1,294 meters
Conductor, Insulated, ACSR #2/0, AWG 6/1 (600 V)		1,294 meters
Connector, Compression, YHD 250, Run #1- #4/0-Tap #6 - #2		56 pieces
Connector, Compression, YHD 300, Run #1/0 - #2/0 - Tap #1/0 - #2/0		1 piece
Connector, Compression, YHD 400, Run #2/0 - #4/0 - Tap #2/0 - #410		7 pieces
Connector, Ground Rod (Clamp) For 5/8" Steel Rod		17 pieces
Fuse Cut-out & Arrester Combination, 15KV, Class 100		2 sets
Insulator, Pin Type, Porcelain, ANSI, Class 55 - 5		18 pieces
Insulator, Spool, 1-3/4", ANSI, Class 53 - 2		24 pieces
Insulator, Spool, 3", ANSI, Class 53 - 4		17 pieces
Insulator, Suspension, 6", Porcelain, Clevis Type		22 pieces
Link, Fuse, Universal, Bottom Head, 2 Amperes, Std.		1 piece
Link, Fuse, Universal, Bottom Head, Type K, 6A		1 piece
Nut, Eye, 5/8", Conventional		2 pieces
Nut, Lock, Mf Type, 5/8"		86 pieces
Nut, Lock, Mf Type, 3/4"		24 pieces
Pin, Pole Top, Channel, 1" Thread, 20" Long		18 pieces
Stirrup, #1/0-#2/0		2 pieces
Rod, Anchor, Threaded, Single Eye, 5/8" X 7'		18 pieces
Rod, Armor, Preformed, #1/0 ACSR, Single Support		12 set
Rod, Armor, Preformed, #2/0 ACSR, Single Support		13 sets
Rod, Ground Steel, Galvanized, 5/8" X 10'		17 pieces
Spacer, Pipe, 3/4" X 1-1/2"		16 pieces
Transformer, Pole Type, Conventional, Amorphous, 10 KVA		1 unit
Washer, Square, Flat, 2-1/4" X 2-1/4" X 3/16", 13/16" Diameter Hole		74 pieces
Washer, Square, Flat, 4" X 4" X 1/2" With 7/8" Diameter Hole		18 pieces
Wire, Tie, Aluminum Alloy, Soft, #4 AWG		292 feet
Wire, Tape, Armor, Aluminum Alloy, 0.5 " X 0.3"		16 feet
Wire, Grounding, Aluminum Alloy, 3 Strand, #4 AWG		96 feet
Wire, Guy, Steel, 3/8", 7 Strand		900 feet
CONCRETE/STEEL MATERIAL		
Pole, Steel, 35', Standard		17 pieces
Block, Anchor, Concrete		18 pieces

ASSEMBLY UNITS	QUANTITY
I. POLE TOP ASSEMBLY UNITS	
A1	1
A2	8
A3	3
A4	2
A5	1
A5-1	1
A6	1
II. TRANSFORMER ASSEMBLY UNITS	
G105	1
III. GROUNDING ASSEMBLY UNITS	
M2-11A	17
IV. GUY ASSEMBLY UNITS	
E1-2	18
V. ANCHOR ASSEMBLY UNITS	
F2-1	18
VI. SECONDARY ASSEMBLY UNITS	
J5	1
J6	8
J7	3
J10	9
VII. POLE	
35 Feet	17
VIII. CONDUCTOR ASSEMBLY	
BARE	
#1/0, AWG, ASCR	1.294 Kms.
INSULATED	
#1/0, AWG, ASCR (Tree Wire)	1.294 Kms.
#2/0, AWG	1.294 Kms.
IX. MISCELLANEOUS ASSEMBLY UNITS	
M3-1A	2
M5-1	2

2. HOUSE WIRING

DESCRIPTION	PROJECT REQUIREMENTS
Conductor, Duplex, #6, AWG	330 meters
Connector, Compression, YHO 100, #6 - #2 ACSR Run To #6 - #2	22 pieces
Meter, KWH, 1 Phase, Class 1, 240 V, 10(60) A, Electronic, Bottom Connected	11 pieces
Housewiring	11 sets

(1 set - Circuit Breaker or Safety Switch (30 Amps.); 2 pcs. - Receptacles; 2 pcs. - CFL Bulb (15W); 2 sets - Tumbler Switch 1 set - Convenience Outlet (2 gang); 2 pcs. - Junction Box (plastic with cover); 5 meters - PDX Wire #10 10 meters - PDX Wire #12; 10 meters - PDX Wire #14; 1 pc. - Electrical Tape (big) and 30 pcs. - Staple Wire)

Labor Cost Per Assembly Units

ASSEMBLY UNITS	QUANTITY
I. CONDUCTOR ASSEMBLY	
DUPLEX	
#6D, AWG	0.330 Kms.
II. MISCELLANEOUS ASSEMBLY UNITS	
Housewiring Installations	11

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Recommending Approval:

ENGR. GC JUNE N. GARANCHON
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General Manager

Construction of Distribution Lines in Sitio Zone IV Ubos, Barangay Ito Norte, Cabatuan

1. Bill of Materials

DESCRIPTION		PROJECT REQUIREMENTS
Attachment, Guy, Malleable Type With 11/16" Hole Diameter	"HDG and Forged Type"	22 pieces
Bolt, Double Upset, 5/8" X 10"		4 pieces
Bolt, Oval Eye, 5/8" X 9"		26 pieces
Bolt, Oval Eye, 5/8" X 10"		25 pieces
Bolt, Machine, 5/8" X 8"		28 pieces
Bolt, Machine, 5/8" X 10"		14 pieces
Bolt, Machine, 5/8" X 12"		8 pieces
Bolt, Single Upset, 5/8" X 8"		3 pieces
Bolt, Single Upset, 5/8" X 10"		3 pieces
Bracket, Clevis Deadend Without Spool		12 pieces
Bracket, Mounting for Cutout		2 pieces
Bracket, Mounting for Transformer		1 set
Clamp, Hot Line, #2 - #4/0 ACSR Main to #2 - #4/0		8 pieces
Clamp, Anchor Rod Bonding, Single Eye		22 pieces
Clamp, Loop Deadend, #2/0 ACSR		74 pieces
Clamp, Deadend Strain, #4/0 ACSR		13 pieces
Clamp, Guy Straight, 3 Bolt, Heavy Duty Steel		44 pieces
Clamp, Suspension, Aluminum Alloy Clevis, 2 Bolts, #4/0 ACSR Max.		1 piece
Clevis, Secondary Swinging Without Spool		39 pieces
Shackle, Anchor, Forged Steel, Galvanized		1 piece
Conductor, 23 kv Insulated, Tree Wire, ACSR/AW -TR/OC-SB #1/0, AWG 6/1 (Meters)		1,069 meters
Conductor, Bare, ACSR #1/0, AWG 6/1 (Meters)		1,432 meters
Conductor, Insulated, ACSR #2/0, AWG 6/1 (600 V)		1,432 meters
Connector, Compression, YHD 250, Run #1- #4/0-Tap #6 - #2		67 pieces
Connector, Compression, YHD 300, Run #1/0 - #2/0 - Tap #1/0 - #2/0		1 piece
Connector, Compression, YHD 400, Run #2/0 - #4/0 - Tap #2/0 - #410		8 pieces
Connector, Ground Rod (Clamp) For 5/8" Steel Rod		20 pieces
Fuse Cut-out & Arrester Combination, 15KV, Class 100		2 sets
Insulator, Pin Type, Porcelain, ANSI, Class 55 - 5		12 pieces
Insulator, Spool, 1-3/4", ANSI, Class 53 - 2		29 pieces
Insulator, Spool, 3", ANSI, Class 53 - 4		32 pieces
Insulator, Suspension, 6", Porcelain, Clevis Type		28 pieces
Link, Fuse, Universal, Bottom Head, 2 Amperes, Std.		1 piece
Link, Fuse, Universal, Bottom Head, Type K, 6A		1 piece
Nut, Eye, 5/8", Conventional		2 pieces
Nut, Lock, Mf Type, 5/8"		109 pieces
Nut, Lock, Mf Type, 3/4"		12 pieces
Stirrup, #1/0-#2/0		2 pieces
Pin, Pole Top, Channel, 1" Thread, 20" Long		12 pieces
Rod, Armor, Preformed, #1/0 ACSR, Single Support		8 set
Rod, Armor, Preformed, #2/0 ACSR, Single Support		16 sets
Rod, Anchor, Threaded, Single Eye, 5/8" X 7'		22 pieces
Rod, Ground Steel, Galvanized, 5/8" X 10'		20 pieces
Spacer, Pipe, 3/4" X 1-1/2"		8 pieces
Transformer, Pole Type, Conventional, Amorphous, 10 KVA		1 unit
Washer, Square, Flat, 2-1/4" X 2-1/4" X 3/16", 13/16" Diameter Hole		105 pieces
Washer, Square, Flat, 4" X 4" X 1/2" With 7/8" Diameter Hole		22 pieces
Wire, Tie, Aluminum Alloy, Soft, #4 AWG		224 feet
Wire, Tape, Armor, Aluminum Alloy, 0.5 " X 0.3"		37 feet
Wire, Grounding, Aluminum Alloy, 3 Strand, #4 AWG		116 feet
Wire, Guy, Steel, 3/8", 7 Strand		1,100 feet

CONCRETE/STEEL MATERIAL

Pole, Steel, 35', Standard	20 pieces
Block, Anchor, Concrete	22 pieces

ASSEMBLY UNITS	QUANTITY
I. POLE TOP ASSEMBLY UNITS	
A1	3
A2	4
A3	1
A4	5
A5	1
A6	1
II. TRANSFORMER ASSEMBLY UNITS	
G105	1
III. GROUNDING ASSEMBLY UNITS	
M2-11A	20
IV. GUY ASSEMBLY UNITS	
E1-2	22
V. ANCHOR ASSEMBLY UNITS	
F2-1	22
VI. SECONDARY ASSEMBLY UNITS	
J5	4
J6	24
J7	1
J8	3
J10	8
VII. POLE	
35 Feet	20
VIII. CONDUCTOR ASSEMBLY	
BARE	
#1/0, AWG, ASCR	1.432 Kms.
INSULATED	
#1/0, AWG, ASCR (Tree Wire)	1.069 Kms.
#2/0, AWG	1.432 Kms.
IX. MISCELLANEOUS ASSEMBLY UNITS	
M3-1A	2
M5-1	2

2. HOUSE WIRING

DESCRIPTION	PROJECT REQUIREMENTS
Conductor, Duplex, #6, AWG	330 meters
Connector, Compression, YHO 100, #6 - #2 ACSR Run To #6 - #2	22 pieces
Meter, KWH, 1 Phase, Class 1, 240 V, 10(60) A, Electronic, Bottom Connected	11 pieces
Housewiring	11 sets

(1 set - Circuit Breaker or Safety Switch (30 Amps.); 2 pcs. - Receptacles; 2 pcs. - CFL Bulb (15W); 2 sets - Tumbler Switch
1 set - Convenience Outlet (2 gang); 2 pcs. - Junction Box (plastic with cover); 5 meters - PDX Wire #10
10 meters - PDX Wire #12; 10 meters - PDX Wire #14; 1 pc. - Electrical Tape (big) and 30 pcs. - Staple Wire)

ASSEMBLY UNITS	QUANTITY
I. CONDUCTOR ASSEMBLY	
DUPLEX	
#6D, AWG	0.330 Kms.
II. MISCELLANEOUS ASSEMBLY UNITS	
Housewiring Installations	11

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General Manager

Construction of Distribution Lines in Sitio Narsalan, Barangay Igtuble, Tubungan

1. Bill of Materials

DESCRIPTION		PROJECT REQUIREMENTS
Attachment, Guy, Malleable Type With 11/16" Hole Diameter	"HDG and Forged Type"	15 pieces
Bolt, Oval Eye, 5/8" X 9"		6 pieces
Bolt, Oval Eye, 5/8" X 10"		32 pieces
Bolt, Machine, 5/8" X 8"		17 pieces
Bolt, Machine, 5/8" X 10"		4 pieces
Bolt, Single Upset, 5/8" X 8"		1 piece
Bracket, Clevis Deadend Without Spool		2 pieces
Bracket, Mounting for Cutout		2 pieces
Bracket, Mounting for Transformer		1 set
Clamp, Hot Line, #2 - #4/0 ACSR Main to #2 - #4/0		5 pieces
Clamp, Anchor Rod Bonding, Single Eye		15 pieces
Clamp, Loop Deadend, #1/0 ACSR		64 pieces
Clamp, Deadend Strain, #1/0 ACSR		4 pieces
Clamp, Guy Straight, 3 Bolt, Heavy Duty Steel		30 pieces
Clevis, Secondary Swinging Without Spool		36 pieces
Conductor, 23 kv Insulated, Tree Wire, ACSR/AW -TR/OC-SB #1/0, AWG 6/1 (Meters)		316 meters
Conductor, Bare, ACSR #1/0, AWG 6/1 (Meters)		914 meters
Conductor, Insulated, ACSR #2/0, AWG 6/1 (600 V)		914 meters
Connector, Compression, YHD 250, Run #1- #4/0-Tap #6 - #2		42 pieces
Connector, Compression, YHD 300, Run #1/0 - #2/0 - Tap #1/0 - #2/0		1 piece
Connector, Compression, YHD 400, Run #2/0 - #4/0 - Tap #2/0 - #410		5 pieces
Connector, Ground Rod (Clamp) For 5/8" Steel Rod		10 pieces
Fuse Cut-out & Arrester Combination, 15KV, Class 100		2 sets
Insulator, Pin Type, Porcelain, ANSI, Class 55 - 5		2 pieces
Insulator, Spool, 1-3/4", ANSI, Class 53 - 2		15 pieces
Insulator, Spool, 3", ANSI, Class 53 - 4		24 pieces
Insulator, Suspension, 6", Porcelain, Clevis Type		8 pieces
Link, Fuse, Universal, Bottom Head, 2 Amperes, Std.		1 piece
Link, Fuse, Universal, Bottom Head, Type K, 6A		1 piece
Nut, Eye, 5/8", Conventional		8 pieces
Nut, Lock, Mf Type, 5/8"		54 pieces
Pin, Pole Top, Channel, 1" Thread, 20" Long		2 pieces
Rod, Anchor, Threaded, Single Eye, 5/8" X 7'		15 pieces
Rod, Armor, Preformed, #1/0 ACSR, Single Support		1 set
Rod, Armor, Preformed, #2/0 ACSR, Single Support		6 sets
Rod, Ground Steel, Galvanized, 5/8" X 10'		10 pieces
Transformer, Pole Type, Conventional, Amorphous, 10 KVA		1 unit
Washer, Square, Flat, 2-1/4" X 2-1/4" X 3/16", 13/16" Diameter Hole		54 pieces
Washer, Square, Flat, 4" X 4" X 1/2" With 7/8" Diameter Hole		15 pieces
Wire, Tie, Insulated, ACSR, #6 AWG,		40 feet
Wire, Tape, Armor, Aluminum Alloy, 0.5 " X 0.3"		32 feet
Wire, Grounding, Aluminum Alloy, 3 Strand, #4 AWG		81 feet
Wire, Guy, Steel, 3/8", 7 Strand		750 feet
CONCRETE/STEEL MATERIAL		
Pole, Steel, 35', Standard		13 pieces
Block, Anchor, Concrete		15 pieces

2. HOUSE WIRING

DESCRIPTION	PROJECT REQUIREMENTS
Conductor, Duplex, #6, AWG	540 meters
Connector, Compression, YHO 100, #6 - #2 ACSR Run To #6 - #2	36 pieces
Meter, KWH, 1 Phase, Class 1, 240 V, 10(60) A, Electronic, Bottom Connected	18 pieces
Housewiring	18 sets

(1 set - Circuit Breaker or Safety Switch (30 Amps.); 2 pcs. - Receptacles; 2 pcs. - CFL Bulb (15W); 2 sets - Tumbler Switch 1 set - Convenience Outlet (2 gang); 2 pcs. - Junction Box (plastic with cover); 5 meters - PDX Wire #10 10 meters - PDX Wire #12; 10 meters - PDX Wire #14; 1 pc. - Electrical Tape (big) and 30 pcs. - Staple Wire)

ASSEMBLY UNITS	QUANTITY
I. CONDUCTOR ASSEMBLY	
DUPLEX	
#6D, AWG	0.540 Kms.
II. MISCELLANEOUS ASSEMBLY UNITS	
Housewiring Installations	18

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Construction of Distribution Lines in Sitio Nampungan, Barangay Igtuble, Tubungan

1. Bill of Materials

DESCRIPTION		PROJECT REQUIREMENTS
Attachment, Guy, Malleable Type With 11/16" Hole Diameter	"HDG and Forged Type"	14 pieces
Bolt, Double Upset, 5/8" X 10"		2 pieces
Bolt, Oval Eye, 5/8" X 9"		8 pieces
Bolt, Oval Eye, 5/8" X 10"		17 pieces
Bolt, Machine, 5/8" X 8"		22 pieces
Bolt, Machine, 5/8" X 10"		17 pieces
Bolt, Machine, 5/8" X 12"		4 pieces
Bolt, Single Upset, 5/8" X 8"		4 pieces
Bracket, Clevis Deadend Without Spool		15 pieces
Bracket, Mounting for Cutout		2 pieces
Bracket, Mounting for Transformer		1 set
Clamp, Hot Line, #2 - #4/0 ACSR Main to #2 - #4/0		5 pieces
Clamp, Anchor Rod Bonding, Single Eye		14 pieces
Clamp, Loop Deadend, #1/0 ACSR		38 pieces
Clamp, Deadend Strain, #1/0 ACSR		4 pieces
Clamp, Guy Straight, 3 Bolt, Heavy Duty Steel		28 pieces
Clamp, Suspension, Aluminum Alloy Clevis, 2 Bolts, #2/0 ACSR Max.		1 piece
Clevis, Secondary Swinging Without Spool		22 pieces
Shackle, Anchor, Forged Steel, Galvanized		1 piece
Conductor, 23 kv Insulated, Tree Wire, ACSR/AW -TR/OC-SB #1/0, AWG 6/1 (Meters)		903 meters
Conductor, Bare, ACSR #1/0, AWG 6/1 (Meters)		1,788 meters
Conductor, Insulated, ACSR #2/0, AWG 6/1 (600 V)		1,242 meters
Connector, Compression, YHD 250, Run #1- #4/0-Tap #6 - #2		44 pieces
Connector, Compression, YHD 300, Run #1/0 - #2/0 - Tap #1/0 - #2/0		1 piece
Connector, Compression, YHD 400, Run #2/0 - #4/0 - Tap #2/0 - #410		5 pieces
Connector, Ground Rod (Clamp) For 5/8" Steel Rod		14 pieces
Fuse Cut-out & Arrester Combination, 15KV, Class 100		2 sets
Insulator, Pin Type, Porcelain, ANSI, Class 55 - 5		9 pieces
Insulator, Spool, 1-3/4", ANSI, Class 53 - 2		19 pieces
Insulator, Spool, 3", ANSI, Class 53 - 4		24 pieces
Insulator, Suspension, 6", Porcelain, Clevis Type		10 pieces
Link, Fuse, Universal, Bottom Head, 2 Amperes, Std.		1 piece
Link, Fuse, Universal, Bottom Head, Type K, 6A		1 piece
Nut, Eye, 5/8", Conventional		6 pieces
Nut, Lock, Mf Type, 5/8"		70 pieces
Nut, Lock, Mf Type, 3/4"		6 pieces
Pin, Pole Top, Channel, 1" Thread, 20" Long		9 pieces
Rod, Anchor, Threaded, Single Eye, 5/8" X 7'		14 pieces
Rod, Armor, Preformed, #1/0 ACSR, Single Support		7 sets
Rod, Armor, Preformed, #2/0 ACSR, Single Support		17 sets
Rod, Ground Steel, Galvanized, 5/8" X 10'		14 pieces
Stirrup, #1/0-#2/0		2 pieces
Spacer, Pipe, 3/4" X 1-1/2"		4 pieces
Transformer, Pole Type, Conventional, Amorphous, 10 KVA		1 unit
Washer, Square, Flat, 2-1/4" X 2-1/4" X 3/16", 13/16" Diameter Hole		66 pieces
Washer, Square, Flat, 4" X 4" X 1/2" With 7/8" Diameter Hole		14 pieces
Wire, Tie, Insulated, ACSR, #6 AWG,		188 feet
Wire, Tape, Armor, Aluminum Alloy, 0.5 " X 0.3"		19 feet
Wire, Grounding, Aluminum Alloy, 3 Strand, #4 AWG		76 feet
Wire, Guy, Steel, 3/8", 7 Strand		700 feet
CONCRETE/STEEL MATERIAL		
Pole, Steel, 35', Standard		19 pieces
Block, Anchor, Concrete		14 pieces

ASSEMBLY UNITS	QUANTITY
I. POLE TOP ASSEMBLY UNITS	
A1	4
A2	2
A3	1
A4	1
A5	1
A5-4	1
II. TRANSFORMER ASSEMBLY UNITS	
G10	1
III. GROUNDING ASSEMBLY UNITS	
M2-11A	14
IV. GUY ASSEMBLY UNITS	
E1-2	14
V. ANCHOR ASSEMBLY UNITS	
F2-1	14
VI. SECONDARY ASSEMBLY UNITS	
J5	2
J6	11
J7	2
J10	13
J15	4
VII. POLE	
35 Feet	19
VIII. CONDUCTOR ASSEMBLY	
BARE	
#1/0, AWG, ASCR	1.788 Kms.
INSULATED	
#1/0, AWG, ASCR (Tree Wire)	0.903 Kms.
#2/0, AWG	1.242 Kms.
IX. MISCELLANEOUS ASSEMBLY UNITS	
M3-1A	2
M5-1	2

2. HOUSE WIRING

DESCRIPTION	PROJECT REQUIREMENTS
Conductor, Duplex, #6, AWG	690 meters
Connector, Compression, YHO 100, #6 - #2 ACSR Run To #6 - #2	46 pieces
Meter, KWH, 1 Phase, Class 1, 240 V, 10(60) A, Electronic, Bottom Connected	23 pieces
Housewiring	23 sets

(1 set - Circuit Breaker or Safety Switch (30 Amps.); 2 pcs. - Receptacles; 2 pcs. - CFL Bulb (15W); 2 sets - Tumbler Switch 1 set - Convenience Outlet (2 gang); 2 pcs. - Junction Box (plastic with cover); 5 meters - PDX Wire #10 10 meters - PDX Wire #12; 10 meters - PDX Wire #14; 1 pc. - Electrical Tape (big) and 30 pcs. - Staple Wire)

ASSEMBLY UNITS	QUANTITY
I. CONDUCTOR ASSEMBLY	
DUPLEX	
#6D, AWG	0.690 Kms.
II. MISCELLANEOUS ASSEMBLY UNITS	
Housewiring Installations	23

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Construction of Distribution Lines in Sitio Riverside (Via Bucao), Barangay Alameda, Igbaras

1. Bill of Materials

DESCRIPTION		PROJECT REQUIREMENTS
Attachment, Guy, Malleable Type With 11/16" Hole Diameter		25 pieces
Bolt, Double Upset, 5/8" X 10"		5 pieces
Bolt, Oval Eye, 5/8" X 9"		12 pieces
Bolt, Oval Eye, 5/8" X 10"		33 pieces
Bolt, Machine, 5/8" X 8"		27 pieces
Bolt, Machine, 5/8" X 10"		21 pieces
Bolt, Machine, 5/8" X 12"		10 pieces
Bolt, Single Upset, 5/8" X 8"		1 piece
Bolt, Single Upset, 5/8" X 10"		3 pieces
Bracket, Clevis Deadend Without Spool	"HDG and Forged Type"	17 pieces
Bracket, Mounting for Cutout		3 pieces
Bracket, Mounting for Transformer		2 sets
Clamp, Hot Line, #2 - #4/0 ACSR Main to #2 - #4/0		7 pieces
Clamp, Anchor Rod Bonding, Single Eye		25 pieces
Clamp, Loop Deadend, #1/0 ACSR		62 pieces
Clamp, Deadend Strain, #1/0 ACSR		4 pieces
Clamp, Guy Straight, 3 Bolt, Heavy Duty Steel		50 pieces
Clamp, Suspension, Aluminum Alloy Clevis, 2 Bolts, #2/0 ACSR Max.		2 pieces
Clevis, Secondary Swinging Without Spool		39 pieces
Shackle, Anchor, Forged Steel, Galvanized		2 pieces
Conductor, 23 kv Insulated, Tree Wire, ACSR/AW -TR/OC-SB #1/0, AWG 6/1 (Meter		891 meters
Conductor, Bare, ACSR #1/0, AWG 6/1 (Meters)		2,070 meters
Conductor, Insulated, ACSR #2/0, AWG 6/1 (600 V)		1,817 meters
Connector, Compression, YHD 250, Run #1- #4/0-Tap #6 - #2		82 pieces
Connector, Compression, YHD 300, Run #1/0 - #2/0 - Tap #1/0 - #2/0		2 pieces
Connector, Compression, YHD 400, Run #2/0 - #4/0 - Tap #2/0 - #410		6 pieces
Connector, Ground Rod (Clamp) For 5/8" Steel Rod		26 pieces
Fuse Cut-out & Arrester Combination, 15KV, Class 100		3 sets
Insulator, Pin Type, Porcelain, ANSI, Class 55 - 5		11 pieces
Insulator, Spool, 1-3/4", ANSI, Class 53 - 2		32 pieces
Insulator, Spool, 3", ANSI, Class 53 - 4		33 pieces
Insulator, Suspension, 6", Porcelain, Clevis Type		12 pieces
Link, Fuse, Universal, Bottom Head, 2 Amperes, Std.		2 pieces
Link, Fuse, Universal, Bottom Head, Type K, 6A		1 piece
Nut, Eye, 5/8", Conventional		6 pieces
Nut, Lock, Mf Type, 5/8"		102 pieces
Nut, Lock, Mf Type, 3/4"		15 pieces
Pin, Pole Top, Channel, 1" Thread, 20" Long		11 pieces
Rod, Anchor, Threaded, Single Eye, 5/8" X 7'		25 pieces
Rod, Armor, Preformed, #1/0 ACSR, Single Support		11 sets
Rod, Armor, Preformed, #2/0 ACSR, Single Support		23 sets
Rod, Ground Steel, Galvanized, 5/8" X 10'		26 pieces
Stirrup, #1/0-#2/0		2 pieces
Spacer, Pipe, 3/4" X 1-1/2"		10 pieces
Transformer, Pole Type, Conventional, Amorphous, 10 KVA		2 units
Washer, Square, Flat, 2-1/4" X 2-1/4" X 3/16", 13/16" Diameter Hole		92 pieces
Washer, Square, Flat, 4" X 4" X 1/2" With 7/8" Diameter Hole		25 pieces
Wire, Tie, Insulated, ACSR, #6 AWG,		256 feet
Wire, Tape, Armor, Aluminum Alloy, 0.5 " X 0.3"		31 feet
Wire, Grounding, Aluminum Alloy, 3 Strand, #4 AWG		137 feet
Wire, Guy, Steel, 3/8", 7 Strand		1,250 feet
CONCRETE/STEEL MATERIAL		
Pole, Steel, 35', Standard		26 pieces
Block, Anchor, Concrete		25 pieces

ASSEMBLY UNITS	QUANTITY
I. POLE TOP ASSEMBLY UNITS	
A1	1
A2	5
A3	2
A4	1
A5	1
A5-1	1
II. TRANSFORMER ASSEMBLY UNITS	
G9	2
III. GROUNDING ASSEMBLY UNITS	
M2-11A	26
IV. GUY ASSEMBLY UNITS	
E1-2	25
V. ANCHOR ASSEMBLY UNITS	
F2-1	25
VI. SECONDARY ASSEMBLY UNITS	
J5	5
J6	21
J7	6
J8	3
J10	12
J15	6
VII. POLE	
35 Feet	26
VIII. CONDUCTOR ASSEMBLY	
BARE	
#1/0, AWG, ASCR	2.070 Kms.
INSULATED	
#1/0, AWG, ASCR (Tree Wire)	0.891 Kms.
#2/0, AWG	1.817 Kms.
IX. MISCELLANEOUS ASSEMBLY UNITS	
M3-1A	3
M5-1	3

Construction of Distribution Lines in Sitio Upper Talibong, Barangay Carara-an, Leon

1. Bill of Materials

DESCRIPTION	PROJECT REQUIREMENTS
Attachment, Guy, Malleable Type With 11/16" Hole Diameter	6 pieces
Bolt, Oval Eye, 5/8" X 9"	12 pieces
Bolt, Oval Eye, 5/8" X 10"	20 pieces
Bolt, Machine, 5/8" X 8"	8 pieces
Bolt, Machine, 5/8" X 10"	5 pieces
Bolt, Machine, 5/8" X 12"	2 pieces
Bolt, Single Upset, 5/8" X 8"	1 piece
Bracket, Clevis Deadend Without Spool	3 pieces
Bracket, Mounting for Cutout	2 pieces
Bracket, Mounting for Transformer	1 set
Clamp, Hot Line, #2 - #4/0 ACSR Main to #2 - #4/0	6 pieces
Clamp, Anchor Rod Bonding, Single Eye	6 pieces
Clamp, Loop Deadend, #1/0 ACSR	52 pieces
Clamp, Deadend Strain, #1/0 ACSR	6 pieces
Clamp, Guy Straight, 3 Bolt, Heavy Duty Steel	12 pieces
Clevis, Secondary Swinging Without Spool	26 pieces
Conductor, 23 kv Insulated, Tree Wire, ACSR/AW -TR/OC-SB #1/0, AWG 6/1 (Meters)	535 meters
Conductor, Bare, ACSR #1/0, AWG 6/1 (Meters)	1,133 meters
Conductor, Insulated, ACSR #2/0, AWG 6/1 (600 V)	598 meters
Connector, Compression, YHD 250, Run #1- #4/0-Tap #6 - #2	21 pieces
Connector, Compression, YHD 300, Run #1/0 - #2/0 - Tap #1/0 - #2/0	1 piece
Connector, Compression, YHD 400, Run #2/0 - #4/0 - Tap #2/0 - #410	6 pieces
Connector, Ground Rod (Clamp) For 5/8" Steel Rod	6 pieces
Fuse Cut-out & Arrester Combination, 15KV, Class 100	2 sets
Insulator, Pin Type, Porcelain, ANSI, Class 55 - 5	3 pieces
Insulator, Spool, 1-3/4", ANSI, Class 53 - 2	16 pieces
Insulator, Spool, 3", ANSI, Class 53 - 4	14 pieces
Insulator, Suspension, 6", Porcelain, Clevis Type	12 pieces
Link, Fuse, Universal, Bottom Head, 2 Amperes, Std.	1 piece
Link, Fuse, Universal, Bottom Head, Type K, 6A	1 piece
Nut, Eye, 5/8", Conventional	8 pieces
Nut, Lock, Mf Type, 5/8"	38 pieces
Nut, Lock, Mf Type, 3/4"	3 pieces
Pin, Pole Top, Channel, 1" Thread, 20" Long	3 pieces
Rod, Anchor, Threaded, Single Eye, 5/8" X 7'	6 pieces
Rod, Armor, Preformed, #1/0 ACSR, Single Support	2 sets
Rod, Armor, Preformed, #2/0 ACSR, Single Support	2 sets
Rod, Ground Steel, Galvanized, 5/8" X 10'	6 pieces
Spacer, Pipe, 3/4" X 1-1/2"	2 pieces
Stirrup, #1/0-#2/0	2 pieces
Transformer, Pole Type, Conventional, Amorphous, 10 KVA	1 unit
Washer, Square, Flat, 2-1/4" X 2-1/4" X 3/16", 13/16" Diameter Hole	36 pieces
Washer, Square, Flat, 4" X 4" X 1/2" With 7/8" Diameter Hole	6 pieces
Wire, Tie, Insulated, ACSR, #6 AWG,	48 feet
Wire, Tape, Armor, Aluminum Alloy, 0.5 " X 0.3"	26 feet
Wire, Grounding, Aluminum Alloy, 3 Strand, #4 AWG	36 feet
Wire, Guy, Steel, 3/8", 7 Strand	300 feet

"HDG and

CONCRETE/STEEL MATERIAL

Pole, Steel, 35', Standard	11 pieces
Block, Anchor, Concrete	6 pieces

ASSEMBLY UNITS	QUANTITY
I. POLE TOP ASSEMBLY UNITS	
A1	1
A2	1
A4	2
A5	1
A5-1	1
II. TRANSFORMER ASSEMBLY UNITS	
G9	1
III. GROUNDING ASSEMBLY UNITS	
M2-11A	6
IV. GUY ASSEMBLY UNITS	
E1-2	6
V. ANCHOR ASSEMBLY UNITS	
F2-1	6
VI. SECONDARY ASSEMBLY UNITS	
J6	12
J10	2
J15	8
VII. POLE	
35 Feet	11
VIII. CONDUCTOR ASSEMBLY	
BARE	
#1/0, AWG, ASCR	1.133 Kms.
INSULATED	
#1/0, AWG	0.535 Kms.
#2/0, AWG	0.598 Kms.
IX. MISCELLANEOUS ASSEMBLY UNITS	
M3-1A	2
M5-1	2
X. DISMANTLING/REMOVAL OF FACILITIES	
35 Feet	5

2. HOUSE WIRING

DESCRIPTION	PROJECT REQUIREMENTS
Conductor, Duplex, #6, AWG	450 meters
Connector, Compression, YHO 100, #6 - #2 ACSR Run To #6 - #2	30 pieces
Meter, KWH, 1 Phase, Class 1, 240 V, 10(60) A, Electronic, Bottom Connected	15 pieces
Housewiring	15 sets

(1 set - Circuit Breaker or Safety Switch (30 Amps.); 2 pcs. - Receptacles; 2 pcs. - CFL Bulb (15W); 2 sets - Tumbler Switch 1 set - Convenience Outlet (2 gang); 2 pcs. - Junction Box (plastic with cover); 5 meters - PDX Wire #10 10 meters - PDX Wire #12; 10 meters - PDX Wire #14; 1 pc. - Electrical Tape (big) and 30 pcs. - Staple Wire)

ASSEMBLY UNITS	QUANTITY
I. CONDUCTOR ASSEMBLY	
DUPLEX	
#6D, AWG	0.450 Kms.
II. MISCELLANEOUS ASSEMBLY UNITS	
Housewiring Installations	15

Prepared by:

ENGR. KARL JUNE T. TAYO
Design and Planning Section Head

Reviewed by:

ENGR. JERRY D. DIGNOS
ESD Chief

Recommending Approval:

ENGR. GC JUNE N. GARANCHON
TSD Manager

Approved by:

ENGR. MIGUEL A. PAGUNTALAN, JR.
General Manager

Construction of Distribution Lines in Sitio Taruk, Barangay Banagan, Leon

1. Bill of Materials

DESCRIPTION		PROJECT REQUIREMENTS
Attachment, Guy, Malleable Type With 11/16" Hole Diameter	"HDG and Forged Type"	27 pieces
Bolt, Double Upset, 5/8" X 10"		2 pieces
Bolt, Oval Eye, 5/8" X 9"		12 pieces
Bolt, Oval Eye, 5/8" X 10"		47 pieces
Bolt, Machine, 5/8" X 8"		29 pieces
Bolt, Machine, 5/8" X 10"		13 pieces
Bolt, Machine, 5/8" X 12"		2 pieces
Bolt, Single Upset, 5/8" X 8"		1 piece
Bolt, Single Upset, 5/8" X 10"		1 piece
Bracket, Clevis Deadend Without Spool		11 pieces
Bracket, Mounting for Cutout		2 pieces
Bracket, Mounting for Transformer		1 set
Clamp, Hot Line, #2 - #4/0 ACSR Main to #2 - #4/0		5 pieces
Clamp, Anchor Rod Bonding, Single Eye		27 pieces
Clamp, Loop Deadend, #1/0 ACSR		90 pieces
Clamp, Deadend Strain, #1/0 ACSR		4 pieces
Clamp, Guy Straight, 3 Bolt, Heavy Duty Steel		54 pieces
Clamp, Suspension, Aluminum Alloy Clevis, 2 Bolts, #2/0 ACSR Max.		2 pieces
Clevis, Secondary Swinging Without Spool		53 pieces
Shackle, Anchor, Forged Steel, Galvanized		2 pieces
Conductor, 23 kv Insulated, Tree Wire, ACSR/AW -TR/OC-SB #1/0, AWG 6/1 (Meters)		512 meters
Conductor, Bare, ACSR #1/0, AWG 6/1 (Meters)		2,035 meters
Conductor, Insulated, ACSR #2/0, AWG 6/1 (600 V)		2,035 meters
Connector, Compression, YHD 250, Run #1- #4/0-Tap #6 - #2		80 pieces
Connector, Compression, YHD 300, Run #1/0 - #2/0 - Tap #1/0 - #2/0		1 piece
Connector, Compression, YHD 400, Run #2/0 - #4/0 - Tap #2/0 - #410		5 pieces
Connector, Ground Rod (Clamp) For 5/8" Steel Rod		24 pieces
Fuse Cut-out & Arrester Combination, 15KV, Class 100		2 sets
Insulator, Pin Type, Porcelain, ANSI, Class 55 - 5		3 pieces
Insulator, Spool, 1-3/4", ANSI, Class 53 - 2		23 pieces
Insulator, Spool, 3", ANSI, Class 53 - 4		45 pieces
Insulator, Suspension, 6", Porcelain, Clevis Type		12 pieces
Link, Fuse, Universal, Bottom Head, 2 Amperes, Std.		1 piece
Link, Fuse, Universal, Bottom Head, Type K, 6A		1 piece
Nut, Eye, 5/8", Conventional		6 pieces
Nut, Lock, Mf Type, 5/8"		99 pieces
Nut, Lock, Mf Type, 3/4"		3 pieces
Pin, Pole Top, Channel, 1" Thread, 20" Long		3 pieces
Rod, Anchor, Threaded, Single Eye, 5/8" X 7'		27 pieces
Rod, Armor, Preformed, #1/0 ACSR, Single Support		5 sets
Rod, Armor, Preformed, #2/0 ACSR, Single Support		18 sets
Rod, Ground Steel, Galvanized, 5/8" X 10'		24 pieces
Spacer, Pipe, 3/4" X 1-1/2"		2 pieces
Stirrup, #1/0-#2/0		2 pieces
Transformer, Pole Type, Conventional, Amorphous, 10 KVA		1 unit
Washer, Square, Flat, 2-1/4" X 2-1/4" X 3/16", 13/16" Diameter Hole		97 pieces
Washer, Square, Flat, 4" X 4" X 1/2" With 7/8" Diameter Hole		27 pieces
Wire, Tie, Insulated, ACSR, #6 AWG,		132 feet
Wire, Tape, Armor, Aluminum Alloy, 0.5 " X 0.3"		45 feet
Wire, Grounding, Aluminum Alloy, 3 Strand, #4 AWG		141 feet
Wire, Guy, Steel, 3/8", 7 Strand		1,350 feet
CONCRETE/STEEL MATERIAL		
Pole, Steel, 35', Standard		24 pieces
Block, Anchor, Concrete		27 pieces

ASSEMBLY UNITS	QUANTITY
I. POLE TOP ASSEMBLY UNITS	
A1	1
A2	1
A3	2
A4	1
A5	1
A5-1	1
II. TRANSFORMER ASSEMBLY UNITS	
G10	1
III. GROUNDING ASSEMBLY UNITS	
M2-11A	24
IV. GUY ASSEMBLY UNITS	
E1-2	27
V. ANCHOR ASSEMBLY UNITS	
F2-1	27
VI. SECONDARY ASSEMBLY UNITS	
J5	2
J6	35
J7	6
J8	1
J10	10
J15	6
VII. POLE	
35 Feet	24
VIII. CONDUCTOR ASSEMBLY	
BARE	
#1/0, AWG, ASCR	1.938 Kms.
INSULATED	
#1/0, AWG	0.512 Kms.
#2/0, AWG	1.938 Kms.
IX. MISCELLANEOUS ASSEMBLY UNITS	
M3-1A	2
M5-1	2

2. HOUSE WIRING

DESCRIPTION	PROJECT REQUIREMENTS
Conductor, Duplex, #6, AWG	1,050 meters
Connector, Compression, YHO 100, #6 - #2 ACSR Run To #6 - #2	70 pieces
Meter, KWH, 1 Phase, Class 1, 240 V, 10(60) A, Electronic, Bottom Connected	35 pieces
Housewiring	35 sets

(1 set - Circuit Breaker or Safety Switch (30 Amps.); 2 pcs. - Receptacles; 2 pcs. - CFL Bulb (15W); 2 sets - Tumbler Switch 1 set - Convenience Outlet (2 gang); 2 pcs. - Junction Box (plastic with cover); 5 meters - PDX Wire #10 10 meters - PDX Wire #12; 10 meters - PDX Wire #14; 1 pc. - Electrical Tape (big) and 30 pcs. - Staple Wire)

ASSEMBLY UNITS	QUANTITY
I. CONDUCTOR ASSEMBLY	
DUPLEX	
#6D, AWG	1.050 Kms.
II. MISCELLANEOUS ASSEMBLY UNITS	
Housewiring Installations	35

Prepared by:

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ENGR. JERRY D. DIGNOS
ESD Chief

Recommending Approval:

ENGR. GC JUNE N. GARANCHON
TSD Manager

Approved by:

ENGR. MIGUEL M. TAGUNTALAN, JR.
General Manager

Construction of Distribution Lines in Sitio Camando & Danao, Barangay Banagan, Leon

1. Bill of Materials

DESCRIPTION		PROJECT REQUIREMENTS
Attachment, Guy, Malleable Type With 11/16" Hole Diameter	"HDG and Forged Type"	34 pieces
Bolt, Double Upset, 5/8" X 10"		2 pieces
Bolt, Oval Eye, 5/8" X 9"		14 pieces
Bolt, Oval Eye, 5/8" X 10"		64 pieces
Bolt, Machine, 5/8" X 8"		38 pieces
Bolt, Machine, 5/8" X 10"		12 pieces
Bolt, Machine, 5/8" X 12"		4 pieces
Bolt, Single Upset, 5/8" X 8"		2 pieces
Bolt, Single Upset, 5/8" X 10"		1 piece
Bracket, Clevis Deadend Without Spool		10 pieces
Bracket, Mounting for Cutout		2 pieces
Bracket, Mounting for Transformer		1 set
Clamp, Hot Line, #2 - #4/0 ACSR Main to #2 - #4/0		5 pieces
Clamp, Anchor Rod Bonding, Single Eye		34 pieces
Clamp, Loop Deadend, #1/0 ACSR		116 pieces
Clamp, Deadend Strain, #1/0 ACSR		4 pieces
Clamp, Guy Straight, 3 Bolt, Heavy Duty Steel		68 pieces
Clamp, Suspension, Aluminum Alloy Clevis, 2 Bolts, #2/0 ACSR Max.		3 pieces
Clevis, Secondary Swinging Without Spool		71 pieces
Shackle, Anchor, Forged Steel, Galvanized		3 pieces
Conductor, 23 kv Insulated, Tree Wire, ACSR/AW -TR/OC-SB #1/0, AWG 6/1 (Meters		788 meters
Conductor, Bare, ACSR #1/0, AWG 6/1 (Meters)		3,111 meters
Conductor, Insulated, ACSR #2/0, AWG 6/1 (600 V)		3,111 meters
Connector, Compression, YHD 250, Run #1- #4/0-Tap #6 - #2		102 pieces
Connector, Compression, YHD 300, Run #1/0 - #2/0 - Tap #1/0 - #2/0		1 piece
Connector, Compression, YHD 400, Run #2/0 - #4/0 - Tap #2/0 - #410		5 pieces
Connector, Ground Rod (Clamp) For 5/8" Steel Rod		32 pieces
Fuse Cut-out & Arrester Combination, 15KV, Class 100		2 sets
Insulator, Pin Type, Porcelain, ANSI, Class 55 - 5		6 pieces
Insulator, Spool, 1-3/4", ANSI, Class 53 - 2		37 pieces
Insulator, Spool, 3", ANSI, Class 53 - 4		49 pieces
Insulator, Suspension, 6", Porcelain, Clevis Type		14 pieces
Link, Fuse, Universal, Bottom Head, 2 Amperes, Std.		1 piece
Link, Fuse, Universal, Bottom Head, Type K, 6A		1 piece
Nut, Eye, 5/8", Conventional		13 pieces
Nut, Lock, Mf Type, 5/8"		122 pieces
Nut, Lock, Mf Type, 3/4"		6 pieces
Pin, Pole Top, Channel, 1" Thread, 20" Long		6 pieces
Rod, Anchor, Threaded, Single Eye, 5/8" X 7'		34 pieces
Rod, Armor, Preformed, #1/0 ACSR, Single Support		8 sets
Rod, Armor, Preformed, #2/0 ACSR, Single Support		20 sets
Rod, Ground Steel, Galvanized, 5/8" X 10'		32 pieces
Spacer, Pipe, 3/4" X 1-1/2"		4 pieces
Stirrup, #1/0-#2/0		2 pieces
Transformer, Pole Type, Conventional, Amorphous, 10 KVA		1 unit
Washer, Square, Flat, 2-1/4" X 2-1/4" X 3/16", 13/16" Diameter Hole		118 pieces
Washer, Square, Flat, 4" X 4" X 1/2" With 7/8" Diameter Hole		34 pieces
Wire, Tie, Insulated, ACSR, #6 AWG,		188 feet
Wire, Tape, Armor, Aluminum Alloy, 0.5 " X 0.3"		58 feet
Wire, Grounding, Aluminum Alloy, 3 Strand, #4 AWG		176 feet
Wire, Guy, Steel, 3/8", 7 Strand		1,700 feet
CONCRETE/STEEL MATERIAL		
Pole, Steel, 30', Standard		1 piece
Pole, Steel, 35', Standard		31 pieces
Block, Anchor, Concrete		34 pieces

ASSEMBLY UNITS	QUANTITY
I. POLE TOP ASSEMBLY UNITS	
A1	2
A2	2
A3	3
A4	1
A5	1
A5-1	1
II. TRANSFORMER ASSEMBLY UNITS	
G10	1
III. GROUNDING ASSEMBLY UNITS	
M2-11A	32
IV. GUY ASSEMBLY UNITS	
E1-2	34
V. ANCHOR ASSEMBLY UNITS	
F2-1	34
VI. SECONDARY ASSEMBLY UNITS	
J5	2
J6	41
J7	10
J8	1
J10	8
J15	13
VII. POLE	
30 Feet	1
35 Feet	31
VIII. CONDUCTOR ASSEMBLY	
BARE	
#1/0, AWG, ASCR	3.111 Kms.
INSULATED	
#1/0, AWG	0.788 Kms.
#2/0, AWG	3.111 Kms.
IX. MISCELLANEOUS ASSEMBLY UNITS	
M3-1A	2
M5-1	2

2. HOUSE WIRING

DESCRIPTION	PROJECT REQUIREMENTS
Conductor, Duplex, #6, AWG	1,050 meters
Connector, Compression, YHO 100, #6 - #2 ACSR Run To #6 - #2	70 pieces
Meter, KWH, 1 Phase, Class 1, 240 V, 10(60) A, Electronic, Bottom Connected	35 pieces
Housewiring	35 sets

(1 set - Circuit Breaker or Safety Switch (30 Amps.); 2 pcs. - Receptacles; 2 pcs. - CFL Bulb (15W); 2 sets - Tumbler Switch 1 set - Convenience Outlet (2 gang); 2 pcs. - Junction Box (plastic with cover); 5 meters - PDX Wire #10 10 meters - PDX Wire #12; 10 meters - PDX Wire #14; 1 pc. - Electrical Tape (big) and 30 pcs. - Staple Wire)

ASSEMBLY UNITS	QUANTITY
I. CONDUCTOR ASSEMBLY	
DUPLEX	
#6D, AWG	1.050 Kms.
II. MISCELLANEOUS ASSEMBLY UNITS	
Housewiring Installations	35

Prepared by:

ENGR. KARL JUNE T. TAYO
Design and Planning Section Head

Reviewed by:

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ESD Chief

Recommending Approval:

ENGR. GC JUNE N. GARANCHON
TSD Manager

Approved by:

ENGR. MIGUEL A. PAGUNTALAN, JR.
General Manager

Construction of Distribution Lines in Sitio Kagus-An, Barangay Igtuble, Tubungan

1. Bill of Materials

DESCRIPTION		PROJECT REQUIREMENTS
Attachment, Guy, Malleable Type With 11/16" Hole Diameter	"HDG and Forged Type"	2 pieces
Bolt, Oval Eye, 5/8" X 9"		2 pieces
Bolt, Oval Eye, 5/8" X 10"		4 pieces
Bolt, Machine, 5/8" X 8"		2 pieces
Bolt, Machine, 5/8" X 10"		5 pieces
Bolt, Machine, 5/8" X 12"		2 pieces
Bracket, Clevis Deadend Without Spool		3 pieces
Bracket, Mounting for Cutout		2 pieces
Bracket, Mounting for Transformer		1 set
Clamp, Hot Line, #2 - #4/0 ACSR Main to #2 - #4/0		4 pieces
Clamp, Anchor Rod Bonding, Single Eye		2 pieces
Clamp, Loop Deadend, #1/0 ACSR		12 pieces
Clamp, Deadend Strain, #1/0 ACSR		2 pieces
Clamp, Guy Straight, 3 Bolt, Heavy Duty Steel		4 pieces
Clevis, Secondary Swinging Without Spool		6 pieces
Conductor, 23 kv Insulated, Tree Wire, ACSR/AW -TR/OC-SB #1/0, AWG 6/1 (Meters)		178 meters
Conductor, Bare, ACSR #1/0, AWG 6/1 (Meters)		339 meters
Conductor, Insulated, ACSR #2/0, AWG 6/1 (600 V)		161 meters
Connector, Compression, YHD 250, Run #1- #4/0-Tap #6 - #2		10 pieces
Connector, Compression, YHD 300, Run #1/0 - #2/0 - Tap #1/0 - #2/0		1 piece
Connector, Compression, YHD 400, Run #2/0 - #4/0 - Tap #2/0 - #410		4 pieces
Connector, Ground Rod (Clamp) For 5/8" Steel Rod		4 pieces
Fuse Cut-out & Arrester Combination, 15KV, Class 100		2 sets
Insulator, Pin Type, Porcelain, ANSI, Class 55 - 5		3 pieces
Insulator, Spool, 1-3/4", ANSI, Class 53 - 2		5 pieces
Insulator, Spool, 3", ANSI, Class 53 - 4		4 pieces
Insulator, Suspension, 6", Porcelain, Clevis Type		4 pieces
Link, Fuse, Universal, Bottom Head, 2 Amperes, Std.		1 piece
Link, Fuse, Universal, Bottom Head, Type K, 6A		1 piece
Nut, Eye, 5/8", Conventional		4 pieces
Nut, Lock, Mf Type, 5/8"		13 pieces
Nut, Lock, Mf Type, 3/4"		3 pieces
Pin, Pole Top, Channel, 1" Thread, 20" Long		3 pieces
Rod, Anchor, Threaded, Single Eye, 5/8" X 7'		2 pieces
Rod, Armor, Preformed, #1/0 ACSR, Single Support		1 set
Rod, Armor, Preformed, #2/0 ACSR, Single Support		2 sets
Rod, Ground Steel, Galvanized, 5/8" X 10'		4 pieces
Spacer, Pipe, 3/4" X 1-1/2"		2 pieces
Stirrup, #1/0-#2/0		2 pieces
Transformer, Pole Type, Conventional, Amorphous, 10 KVA		1 unit
Washer, Square, Flat, 2-1/4" X 2-1/4" X 3/16", 13/16" Diameter Hole		11 pieces
Washer, Square, Flat, 4" X 4" X 1/2" With 7/8" Diameter Hole		2 pieces
Wire, Tie, Insulated, ACSR, #6 AWG,		32 feet
Wire, Tape, Armor, Aluminum Alloy, 0.5 " X 0.3"		6 feet
Wire, Grounding, Aluminum Alloy, 3 Strand, #4 AWG		16 feet
Wire, Guy, Steel, 3/8", 7 Strand		100 feet

CONCRETE/STEEL MATERIAL

Pole, Steel, 35', Standard	4 pieces
Block, Anchor, Concrete	2 pieces

2. HOUSE WIRING

DESCRIPTION	PROJECT REQUIREMENTS
Conductor, Duplex, #6, AWG	570 meters
Connector, Compression, YHO 100, #6 - #2 ACSR Run To #6 - #2	38 pieces
Meter, KWH, 1 Phase, Class 1, 240 V, 10(60) A, Electronic, Bottom Connected	19 pieces
Housewiring	19 sets

(1 set - Circuit Breaker or Safety Switch (30 Amps.); 2 pcs. - Receptacles; 2 pcs. - CFL Bulb (15W); 2 sets - Tumbler Switch
1 set - Convenience Outlet (2 gang); 2 pcs. - Junction Box (plastic with cover); 5 meters - PDX Wire #10
10 meters - PDX Wire #12; 10 meters - PDX Wire #14; 1 pc. - Electrical Tape (big) and 30 pcs. - Staple Wire)

ASSEMBLY UNITS	QUANTITY
I. CONDUCTOR ASSEMBLY	
DUPLEX	
#6D, AWG	0.570 Kms.
II. MISCELLANEOUS ASSEMBLY UNITS	
Housewiring Installations	19

Prepared by:

ENGR. KARL JUNE T. TAYO
Design and Planning Section Head

Reviewed by:

ENGR. JERRY D. DIGNOS
ESD Chief

Recommending Approval:

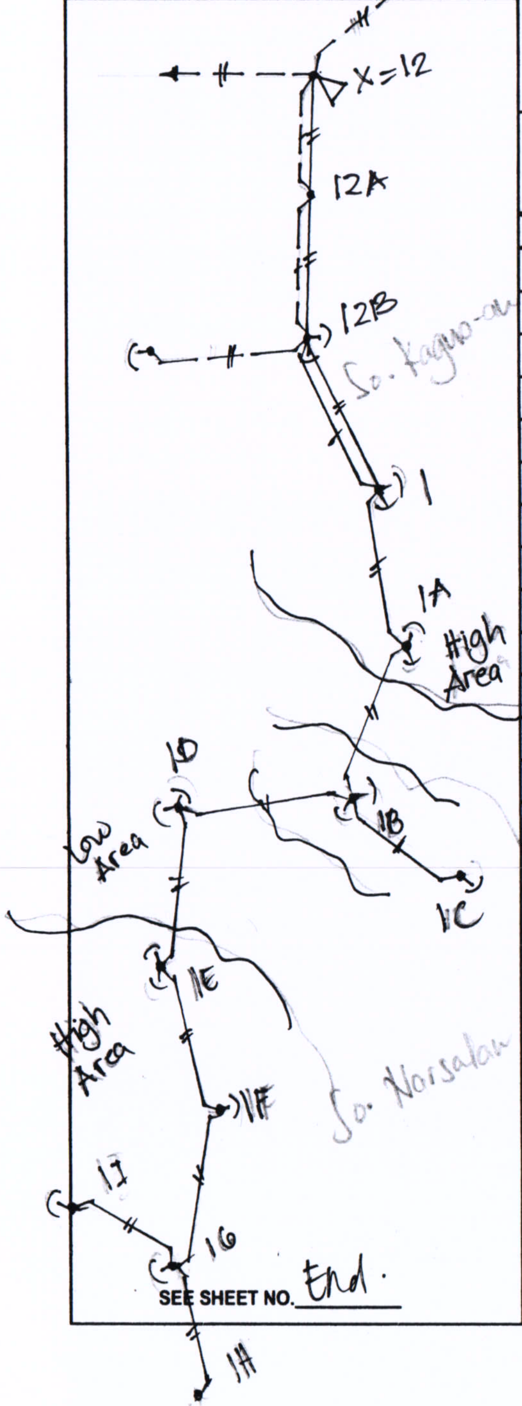
ENGR. GC JUNE N. GARANCHON
TSD Manager

Approved by:

ENGR. MICHEL A. PAGUNTALAN, JR.
General Manager

SKETCH

SEE SHEET NO. start



SEE SHEET NO. End.

NATIONAL ELECTRIFICATION ADMINISTRATION
QUEZON CITY

PRIMARY COND 1-#1/0A (tree wire) 6/1 ACSR
NEUTRAL COND 1-#1/6 6/1 ACSR
RULING SPAN — METERS

STAKING SHEET

PROJECT NAME ILECO-1 / SEP 2021
SUBSTATION Guimbal SS.
LINE Section # Improvement of tapping pole and 1ϕ primary line extension to Sitio Narsalan (via Kagua-an), Igtuble, Tubungan

SHEET NO. 1
OF 1
MAP REF.

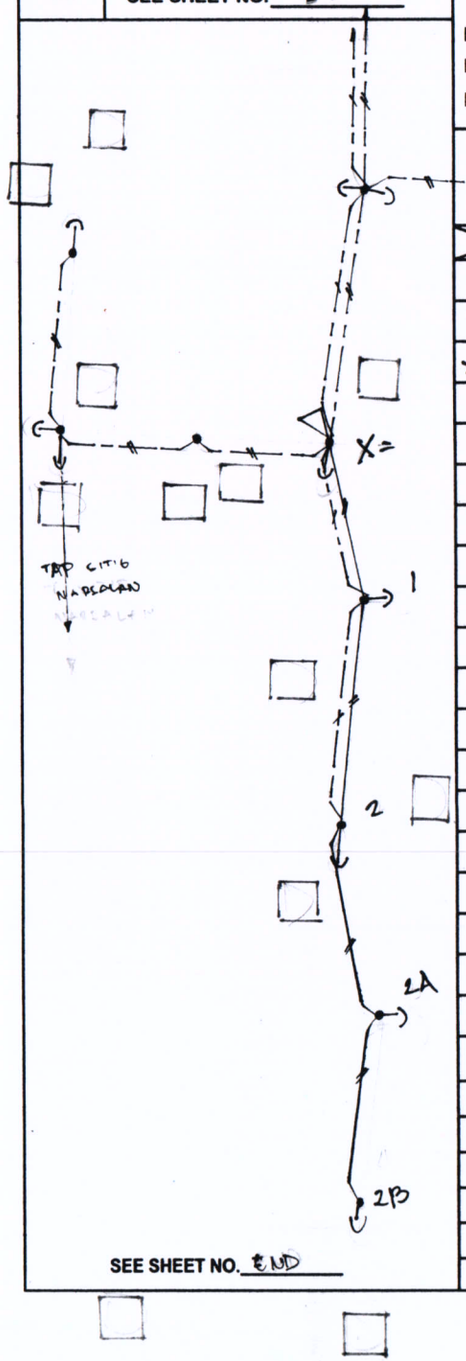
Proj. No. 1404 (c) Page No. 1 (c)
Checked by ______ Staked By JG/JFL
Date ______ Date 20/4/21
Released By ______ Final Inv. By ______
Date ______ Date ______

POLE NO	PRI. BACK SPAN MTRS QUAN	C	POLE Q	POLE (H, C) CODE	PRI. POLE TOP UNIT (A,B,C,) Q	PRI. POLE TOP UNIT CODE	LINE ANGLE	TRANS-FORMER "G" Q	TRANS-FORMER "G" CODE	GND. "M2" Q	GND. "M2" CODE	GUY "E" Q	GUY "E" CODE	LEAD M	ANC "F" Q	ANC "F" CODE	SECONDARY SPAN MTRS QUAN	SEC or U.B CODE	WIRE SIZE	NO. Q	"J" CODE	SERVICE DROP MTRS QUAN	SERVICE NO. C	SIZE	MISC. UNITS "M" Q	MISC. UNITS "M" CODE	R/W RI- Q	R/W RI- CODE	CONS Q	CONS C	MEMBER NAME AND NO. OR REMARKS / COMPUTER CODING
X Equals to Pole #																															
									G		M2		E			F					J		S			M		RI-			
X	ADD				1	AF4																			1	3-11A					
12A	95		1	35SP	1	A														1	5										
12B	95		1	35SP	1	A4														3	6										
																				2	N										
1	85		1	35SP	1	A5		1	610-10	1	11A	2	1-2	6	2	2-1	85	1UB	2/6A	2	10				1 1	3-11A F-30					
1A			1	35SP						1	11A	2	1-2	6	2	2-1	80	2W	2/6A	4	6										
1B			1	35SP						1	11A	2	1-2	6	2	2-1	120	2W	2/6H	4	6										
1C			1	35SP						1	11A	1	1-2	6	1	2-1	75	2W	2/6A	2	6										
1D			1	35SP						1	11A	2	1-2	6	2	2-1	75	2W	2/6A	4	6										
1E			1	35SP						1	11A	2	1-2	6	2	2-1	80	2W	2/6A	2 2	6 N										
1F			1	35SP						1	11A	1	1-2	6	1	2-1	70	2W	2/6A	2	7										
1G			1	35SP						1	11A	1	1-2	6	1	2-1	70	2W	2/6H	2 2	7 N										
1H			1	35SP						1	11A	1	1-2	6	1	2-1	70	2W	2/6H	2	6										
1I			1	35SP						1	11A	1	1-2	6	1	2-1	70	2W	2/6A	2	6										

QUAN	C	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	QUAN	CODE		Q	C	QUAN	C		Q	CODE	Q	CODE	Q	C	QUAN	CODE	
275	1	12	35SP	1	A1		G	10	M2-11A	15	E 1-2	15	F 2-1		2WD		22	J 6		2S	D	2	M3-11A		RI		R		D	ACSR
	2			1	A4		G		M2-		E		F	710	1W	1/6	4	J 7				1	M F-30		RI		C		D	ACSR
	3			1	A5		G		M2-		E		F				2	J 10		3S	D		M		RI		PB			
	DC			1	A5-4		G		M2-		E		F	85	1UB	2/6H	6	J 15					M				LP		N	-INS
														710	1W	2/6 N											IR		D	-DUP
	TTL															D											SL			

SKETCH

SEE SHEET NO. START



SEE SHEET NO. END

NATIONAL ELECTRIFICATION ADMINISTRATION
QUEZON CITY

PRIMARY COND 1-#1/0H (freewire) 6/1 ACSR
NEUTRAL COND 1-#1/0 6/1 ACSR
RULING SPAN — METERS

STAKING SHEET

PROJECT NAME LEOW 1 SEP 2021
SUBSTATION GUMBAL SUBSTATION
LINE Section # 1 ϕ primary line extension tap Sitio Kagusuan, Brgy. Patubig, Tuburan

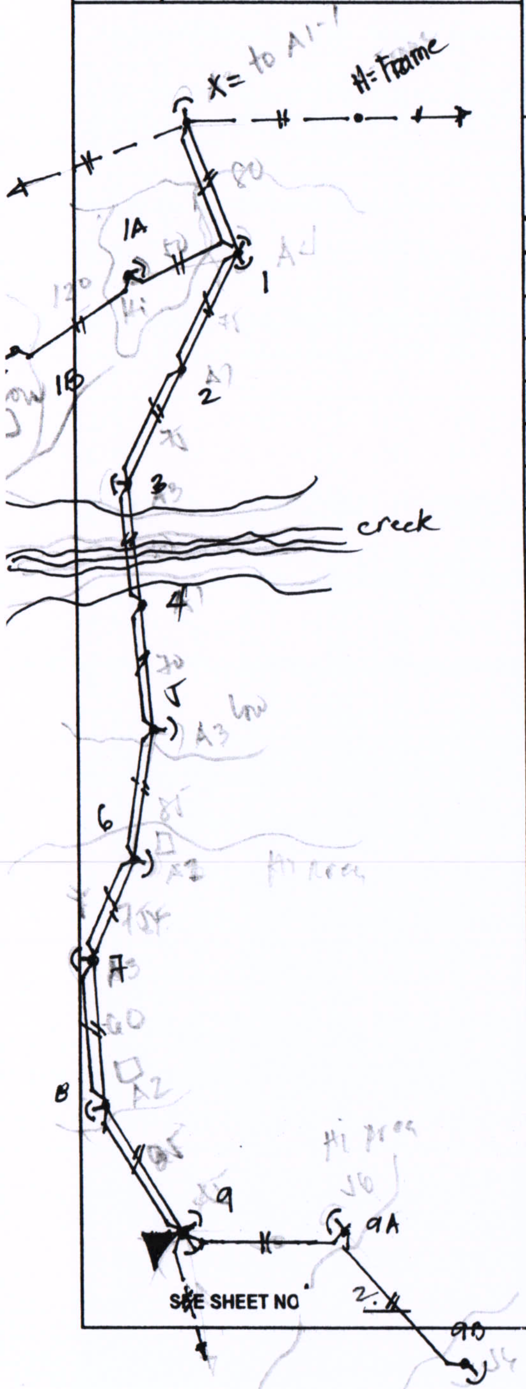
SHEET NO. 1
OF 1
MAP REF.

Proj. No. 1045 (c) Page No. 1 (c)
Checked by _____ Staked By S.C.
Date _____ Date _____
Released By _____ Final Inv. By _____
Date _____ Date _____

POLE NO	PRI. BACK SPAN MTRS	POLE H	POLE C	PRI. POLE TOP UNIT (A,B,C,)	LINE ANGLE	TRANS-FORMER "G"	GND. "M2"	GUY "E"	LEAD M	ANC "F"	SECONDARY SPAN MTRS	SEC or U.B	WIRE SIZE	NO.	"J"	SERVICE DROP MTRS	NO.	SIZE	MISC. UNITS "M"	R / W RI-	CONS	MEMBER NAME AND NO. OR REMARKS
	QUAN C	Q CODE	Q CODE	Q CODE		Q CODE	Q CODE	Q CODE		Q CODE	QUAN	CODE		Q	CODE	QUAN	C		Q CODE	Q CODE	Q C	COMPUTER CODING
X EQUALS TO POLE #						1 LS# G		1 SS# E			1 PACE #				J		S		M	RI-		
X ADD				1 A5-4															1 F-1 1 3-11A			
1	75 10	1 3S SP	1 A2				1 -11A	1 1-2		1 2-1				2	10							2 pcs 3S SP to be pulled-out.
2	80 10	1 3S SP	1 A5			1 610-10	1 -11A	1 1-2		1 2-1				1	6				1 3-11A 1 F-1			
2A		1 3S SP					1 -11A	1 1-2		1 2-1	70	2WD	1/0 2/0N	2	4				1 F-10			
2B		1 2S SP					1 -11A	1 1-2		1 2-1	70	2WD	1/0 2/0N	2	6							

QUAN	C	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	QUAN	CODE		Q	C	QUAN	C		Q	CODE	Q	CODE	Q	C	QUAN	CODE	
155	1ϕ			1	A5-4		G	1	M2-11A	2	E 1-2	2	F2-1		2WD		2	J G		2S	D	2	M F-1		RI	R			D	ACSR
	2	4	3S SP	1	A2		G		M2-		E		F				2	J 10				2	M 3-11A		RI	C	325		D 1/0	ACSR
	3			1	A5		G		M2-		E		F	140	1W	1/0	2	J F		3S	D	1	M F-3P		RI	PB	140		1/0	TREE WIRE
	DC						G		M2-		E		F		IUB			J					M			LP	155		2/0 N	-INS
155														140	1W	2/0 N										IR			D	-DUP
	TTL															D										SL				

SKETCH	NATIONAL ELECTRIFICATION ADMINISTRATION QUEZON CITY	STAKING SHEET	
(N) SEE SHEET NO. Start	PRIMARY COND 1-#1/0 (tree wire) 6/1 ACSR NEUTRAL COND 1-#1/0 6/1 ACSR RULING SPAN — METERS	PROJECT NAME ILECO-I / SEP 2021 SUBSTATION Tigbauan S.S. LINE Section # 1Ø Primary line extension and installation of Transformer tap Sitio Camando & Danao, Banagan, Leon SHEET NO. 1 OF 3 MAP REF.	Proj. No. 14845 (c) Page No. 1 (c) Checked by ___ Staked By K.T Date ___ Date 4/28/21 Released By ___ Final Inv. By ___ Date ___ Date ___

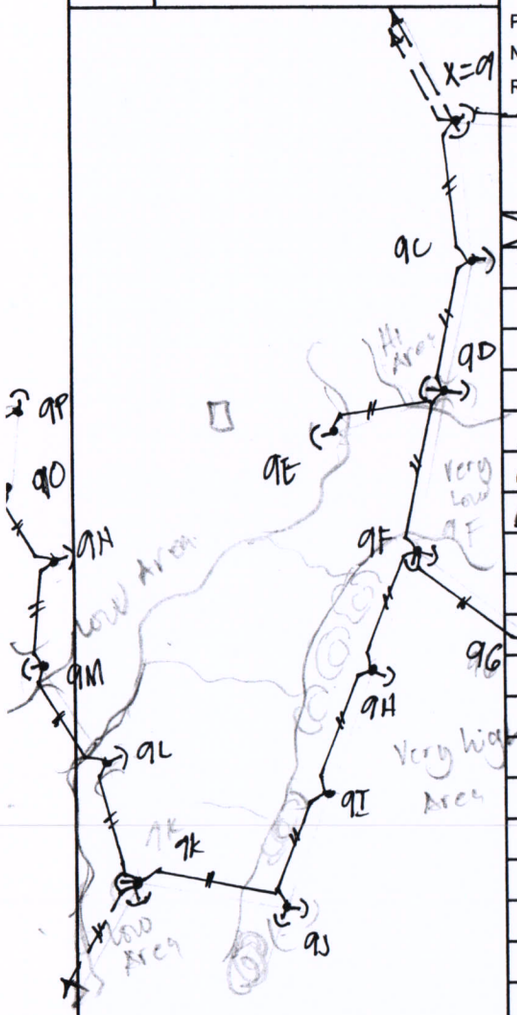


POLE NO	PRI. BACK SPAN MTRS QUAN	C	POLE Q	POLE H	POLE C	PRI. POLE TOP UNIT (A,B,C,) Q	CODE	LINE ANGLE	TRANS-FORMER "G" Q	CODE	GND. "M2" Q	CODE	GUY "E" Q	CODE	LEAD M	ANC "F" Q	CODE	SECONDARY SPAN MTRS QUAN	SEC or U.B CODE	WIRE SIZE	NO. Q	"J" CODE	SERVICE DROP MTRS QUAN	NO. C	SIZE	MISC. UNITS "M" Q	CODE	R/W RI- Q	CODE	CONS Q	C	MEMBER NAME AND NO. OR REMARKS (COMPUTER CODING)
X Equals to Pole #																																
										G		M2		E			F					J		S			M		RI-			
X	ADD	1Ø	1	35	SP	1	A1-1														(1 1	5) N										
1	80		1	35	SP	1	A4				1	-11A	2	1-2	6	2	2-1	80	1UB	2/0H	2	6				1 1	3-11A 5-1					
1A			1	30	SP						1	-11A	1	1-2	6	1	2-1	50	2WH	2/0H	2 2	6 N										
1B			1	35	SP						1	-11A	1	1-2	6	1	2-1	120	2WH	2/0H	1	6										
2	75		1	35	SP	1	A1				1	-11A						75	1UB	2/0H	1	5										
3	75		1	35	SP	1	A3				1	-11A	1	1-2	6	1	2-1	75	1UB	2/0H	1	7										
4	80		1	35	SP	1	A1				1	-11A						80	1UB	2/0H	1	5										
5	70		1	35	SP	1	A3				1	-11A	1	1-2	6	1	2-1	70	1UB	2/0H	1	7										
6	85		1	35	SP	1	A2				1	-11A	1	1-2	6	1	2-1	85	1UB	2/0H	1	10										
7	75		1	35	SP	1	A3				1	-11A	1	1-2	6	1	2-1	75	1UB	2/0H	1	7										
8	60		1	35	SP	1	A2				1	-11A	1	1-2	6	1	2-1	60	1UB	2/0H	1	10										
9	85		1	35	SP	1	A5		1	610-10	1	-11A	2	1-2	6	2	2-1	85	1UB	2/0H	2 2	7 6				1 1 1	5-1 5-2b 3-11A					
9A			1	35	SP						1	-11A	1	1-2	6	1	2-1	50	2WH	2/0H	4	6										
9B			1	35	SP						1	-11A	1	1-2	6	1	2-1	180	2WH	2/0H	2	6										

QUAN	C	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	QUAN	CODE		Q	C	QUAN	C		Q	CODE	Q	CODE	Q	C	QUAN	CODE	
685	1	13	35 SP	2	A1		G	14	M2-11A	13	E1-2	13	F2-1		2WD		2	J5		2S	D	2	M3-11A		RI		R		D	ACSR
	2	1	30 SP	2	A2		G		M2-		E		F	410	1W		13	J6				2	M5-1		RI		C		D	ACSR
	3			3	A3		G		M2-		E		F				2	J7		3S	D	1	M5-2b		RI		PB			
	DC			1	A4		G		M2-		E		F	685	IUB		2	J10					M				LP		N	-INS
				1	A1-1											N	3	N5									IR		D	-DUP
	TTL			1	A5											D											SL			

SKETCH

SEE SHEET NO. 3



SEE SHEET NO. 1

NATIONAL ELECTRIFICATION ADMINISTRATION
QUEZON CITY

PRIMARY COND 1-#1/0H (free wire) 6/1 ACSR
NEUTRAL COND 1-#1/0 6/1 ACSR
RULING SPAN — METERS

STAKING SHEET

PROJECT NAME LUECO-1 SEP 2021
SUBSTATION Tiglauan S.S. MAP REF.
LINE Section # 16 primary line extension tap Sitio Camando and Danao, Banaggan, Lem

SHEET NO. 2 OF 3

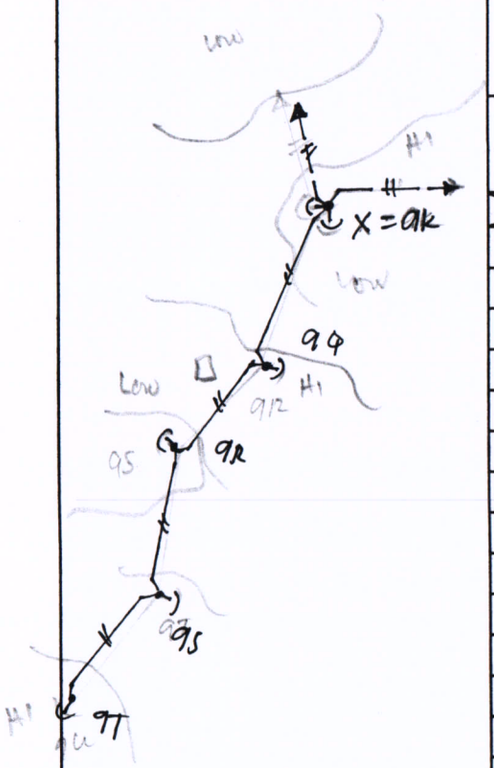
Proj. No. 4845 (c) Page No. 2 (c)
Checked by _____ Staked By K.T.
Date _____ Date 4/28/21
Released By _____ Final Inv. By _____
Date _____ Date _____

POLE NO	PRI. BACK SPAN MTRS	POLE H	POLE C	PRI. POLE TOP UNIT (A,B,C,)	LINE ANGLE	TRANS-FORMER "G"	GND. "M2"	GUY "E"	LEAD M	ANC "F"	SECONDARY SPAN MTRS	SEC or U.B	WIRE SIZE	NO.	"J"	SERVICE DROP MTRS	NO.	SIZE	MISC. UNITS "M"	R/W RI-	CONS	MEMBER NAME AND NO. OR REMARKS
	QUAN C	Q	CODE	Q CODE		Q CODE	Q CODE	Q CODE		Q CODE	QUAN	CODE		Q	CODE	QUAN	C		Q CODE	Q CODE	Q C	COMPUTER CODING
X	Equals to Pole #9					~ Same	Line	Section		~												
						G	M2	E		F					J		S		M	RI-		
9C		1	3 SP				1-11A	1	1-2	6 1 2-1	60	2WH	2/0H	2	7							
9D		1	3 SP				1-11A	2	1-2	6 2 2-1	100	2WH		4 2	6 2							
9E		1	3 SP				1-11A	1	1-2	6 1 2-1	120	2WH		2	6							
9F		1	3 SP				1-11A	2	1-2	6 2 2-1	160	2WH		4 2	6 2							
9G		1	3 SP				1-11A	1	1-2	6 1 2-1	90	2WH		2	4							
9H		1	3 SP				1-11A	1	1-2	6 1 2-1	90	2WH		2	10							
9I		1	3 SP				1-11A				90	2WH	2/0H	1, 2	5 8							
9J		1	3 SP				1-11A	2	1-2	6 2 2-1	90	2WH	2/0H	4	6							
9K		1	3 SP				1-11A	2	1-2	6 2 2-1	100	2WH	2/0H	4 2	6 2							
9L		1	3 SP				1-11A	1	1-2	6 1 2-1	70	2WH	2/0H	2	6							
9M		1	3 SP				1-11A	1	1-2	6 1 2-1	110	2WH	2/0H	3 2	6 2/7							
9N		1	3 SP				1-11A	1	1-2	6 1 2-1	90	2WH	2/0H	2	10							
9O		1	3 SP				1-11A	1	1-2	6 1 2-1	90	2WH	2/0H	2	7							
9P		1	3 SP				1-11A	1	1-2	6 1 2-1	90	2WH	2/0H	2	6							

QUAN	C	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	QUAN	CODE		Q	C	QUAN	C		Q	CODE	Q	CODE	Q	C	QUAN	CODE	
	1	14	3 SP				G	14	M2-11A	1 1	E 1-2	14	2-1		2WD		2 6	J 6		2S	D		M		RI		R		D	ACSR
	2						G		M2-		E		F	1,350	1W	1/0	4	J 7					M		RI		C		D	ACSR
	3						G		M2-		E		F				1	J 8		3S	D		M		RI		PB			
	DC						G		M2-		E		F		IUB		4	J 10					M				LP		N	-INS
														1350	1W	2/0N	10	17									IR		D	-DUP
	TTL															D											SL			

SKETCH

SEE SHEET NO. 2



SEE SHEET NO. End.

NATIONAL ELECTRIFICATION ADMINISTRATION
QUEZON CITY

PRIMARY COND 1-#1/0H (Tree wire) 6/1 ACSR
NEUTRAL COND 1-#1/0 6/1 ACSR
RULING SPAN ___ METERS

STAKING SHEET

PROJECT NAME LEC0-1/SEP2021
SUBSTATION Tiglawan SS.
LINE Section # 1 Primary Line Extension tap Sitio Danao, Brgy. Bonggon, Leon

SHEET NO. 3
OF 3
MAP REF. ___

Proj. No. 1404 (c) Page No. 3 (c)
Checked by ___ Staked By KT.
Date ___ Date 4/28/21
Released By ___ Final Inv. By ___
Date ___ Date ___

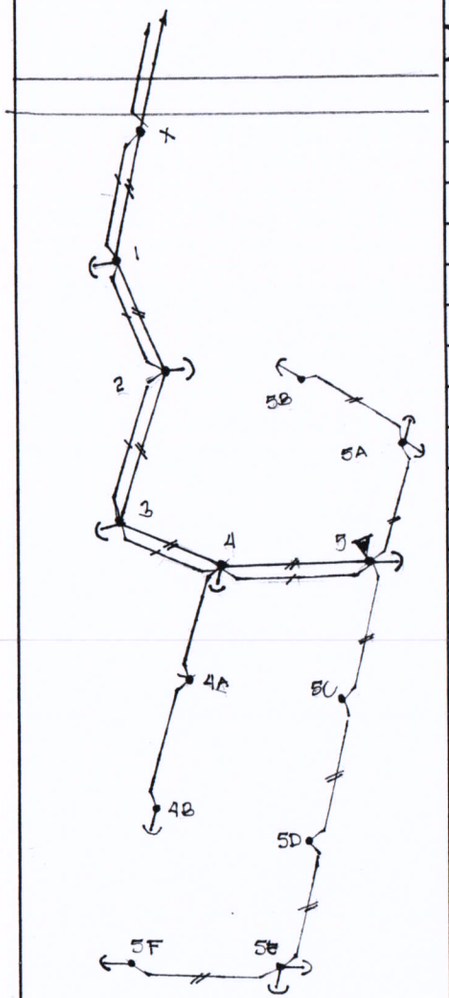
POLE NO	PRI. BACK SPAN MTRS	POLE H	POLE C	PRI. POLE TOP UNIT (A,B,C,)	LINE ANGLE	TRANS-FORMER "G"	GND. "M2"	GUY "E"	LEAD M	ANC "F"	SECONDARY SPAN MTRS	SECONDARY SEC or U.B	SECONDARY WIRE SIZE	SECONDARY NO.	SECONDARY "J"	SERVICE DROP MTRS	SERVICE NO.	SERVICE SIZE	SERVICE MISC. UNITS "M"	R/W RI-	CONS	MEMBER NAME AND NO. OR REMARKS
	QUAN C	Q CODE		Q CODE		Q CODE	Q CODE	Q CODE		Q CODE	QUAN	CODE		Q CODE		QUAN C			Q CODE	Q CODE	Q C	COMPUTER CODING
						G	M2	E		F					J		S		M		RI-	
X Equal to Pole # 9k							Same Unit Section															
9Φ		1 35 SP					1-11A	1-2	6	2-1	90	2WA	2/0H	2	27							
9R		1 35 SP					1-11A	1-2	6	2-1	90	2WA	2/0H	2	10							
95		1 35 SP					1-11A	1-2	6	2-1	90	2WA	2/0H	2	7							
9T		1 35 SP					1-11A	1-2	6	2-1	90	2WA	2/0H	2	6							

QUAN	C	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	QUAN	CODE		Q	C	QUAN	C		Q	CODE	Q	CODE	Q	C	QUAN	CODE	
	1	4	35 SP				G	4	M2-1A	4	E-2	4	F-2-1		2WD		4	J7		2S	D		M		RI		R		D	ACSR
	2						G		M2-		E		F	360	NW	1/0	2	J10					M		RI		C		D	ACSR
	3						G		M2-		E		F				2	J6		3S	D		M		RI		PB			
	DC						G		M2-		E		F		IUB			J					M				LP		N	-INS
														360	NW	2/0N											IR		D	-DUP
	TTL															D											SL			

SEP 2021

SKETCH

SEE SHEET NO. START



SEE SHEET NO. END

NATIONAL ELECTRIFICATION ADMINISTRATION
QUEZON CITY

PRIMARY COND 1-4 1/0 H (treewire) 6/1 ACSR
NEUTRAL COND 1-4 1/0 6/1 ACSR
RULING SPAN _____ METERS

STAKING SHEET

PROJECT NAME ILECO I SEP 2021
SUBSTATION TIGBAUAN SUBSTATION
LINE SECTION # 3A-0 , 1Ø Primary Line Extension Tap Sitio Biga-a, Brgy Danao, Tigbauan

SHEET NO. 1
OF 1
MAP REF. _____

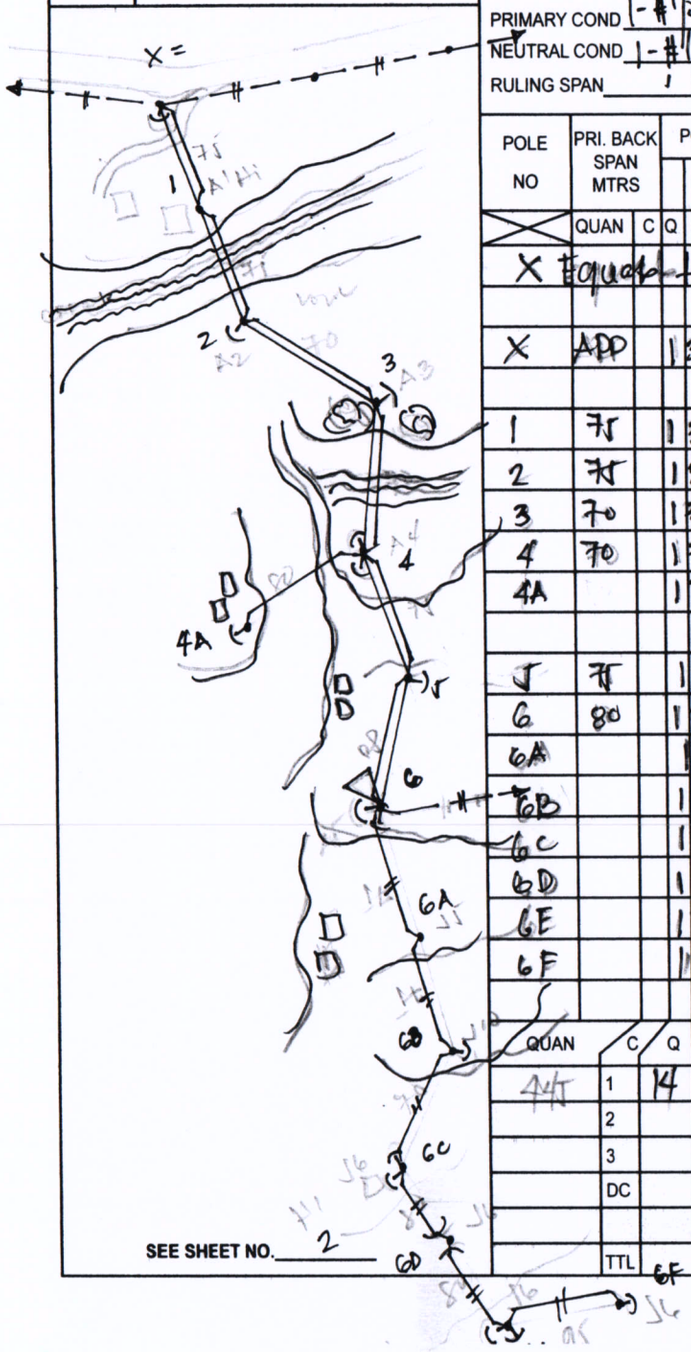
Proj. No. 14644 (c) Page No. 1 (c)
Checked by _____ Staked By S.C
Date _____ Date _____
Released By _____ Final Inv. By _____
Date _____ Date _____

POLE NO	PRI. BACK SPAN MTRS	POLE H	POLE C	PRI. POLE TOP UNIT (A,B,C,)	LINE ANGLE	TRANS-FORMER "G"	GND. "M2"	GUY "E"	LEAD M	ANC "F"	SECONDARY SPAN MTRS	SEC or U.B	WIRE SIZE	NO.	"J"	SERVICE DROP MTRS	NO.	SIZE	MISC. UNITS "M"	R / W RI-	CONS	MEMBER NAME AND NO. OR REMARKS
	QUAN C	Q CODE		Q CODE		Q CODE	Q CODE	Q CODE		Q CODE	QUAN	CODE		Q CODE		QUAN C		Q CODE	Q CODE	Q C	COMPUTER CODING
X EQUALS LOT POLE #						1															
						G	M2	E		F					J		S		RI-		
X	ADD			1 AE-1										1	15						TG to TG
1	80 10	1 35	SP	1 A3			1 -11A	1 1-2		1 2-1	80	1UB	2/0 N	1	7						
2	75 10	1 35	SP	1 A2			1 -11A	1 1-2		1 2-1	75	1UB	2/0 N	1	10						
3	75 10	1 35	SP	1 A3			1 -11A	1 1-2		1 2-1	75	1UB	2/0 N	1	7						
4	70 10	1 35	SP	1 A2			1 -11A	1 1-2		1 2-1	70	1UB	2/0 N	1	10						
4A		1 35	SP				1 -11A	1			70	2WN	D/O N	2	10						
4B		1 35	SP				1 -11A	1 1-2		1 2-1	65	2WN	D/O N	2	6						
5	70 10	1 35	SP	1 A5		1 100-10	1 -11A	1 1-2		1 2-1	70	1UB	D/O N	1	5						
5A		1 35	SP				1 -11A	2 1-2		2 2-1	65	2WN	D/O N	2	15						
5B		1 35	SP				1 -11A	1 1-2		1 2-1	65	2WN	D/O N	4	6						
5C		1 35	SP				1 -11A				60	2WN	D/O N	2	6						
5D		1 35	SP				1 -11A				65	2WN	D/O N	1	5						
5E		1 35	SP				1 -11A	2 1-2		2 2-1	70	2WN	D/O N	1	8						
5F		1 35	SP				1 -11A				70	2WN	D/O N	4	6						
													D/O N	2	6						

QUAN	C	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	QUAN	CODE		Q	C	QUAN	C		Q	CODE	Q	CODE	Q	C	QUAN	CODE	
370	10	18	35 SP	2	A2	1	G100-10	13	M2-11A	18	E 1-2	11	F 2-1		2WD		3	J5		2S	D	2	M3-11D	RI	R			D	ACSR
	2			2	A3		G		M2-		E		F	530	1W	1/0	14	J6				2	MT-1	RI	C	990	D 1/0	ACSR
	3			1	A5		G		M2-		E		F				3	J8		3S	D	1	MT-30	RI	PB	407	1/0	TREE WIRE
	DC			1	AE-1		G		M2-		E		F	370	IUB	2/0 N	2	J10					M		LP	990	2/0 N	-INS
370	N													530	1W	2/0 N	2	9							IR		D	-DUP
	TTL															D	5	15							SL			

SKETCH

SEE SHEET NO. Start



NATIONAL ELECTRIFICATION ADMINISTRATION
QUEZON CITY

PRIMARY COND 1-#1/0 ACSR (freewire)
NEUTRAL COND 1-#1/0 6/1 ACSR
RULING SPAN _____ METERS

STAKING SHEET

PROJECT NAME IECO-1 SEP2021
SUBSTATION Tigbauan SS
LINE Section #10 Primary line Extension TAP to Sitio Taruk, Brgy. Banaggan, Leon

SHEET NO. 1
OF 2
MAP REF. _____

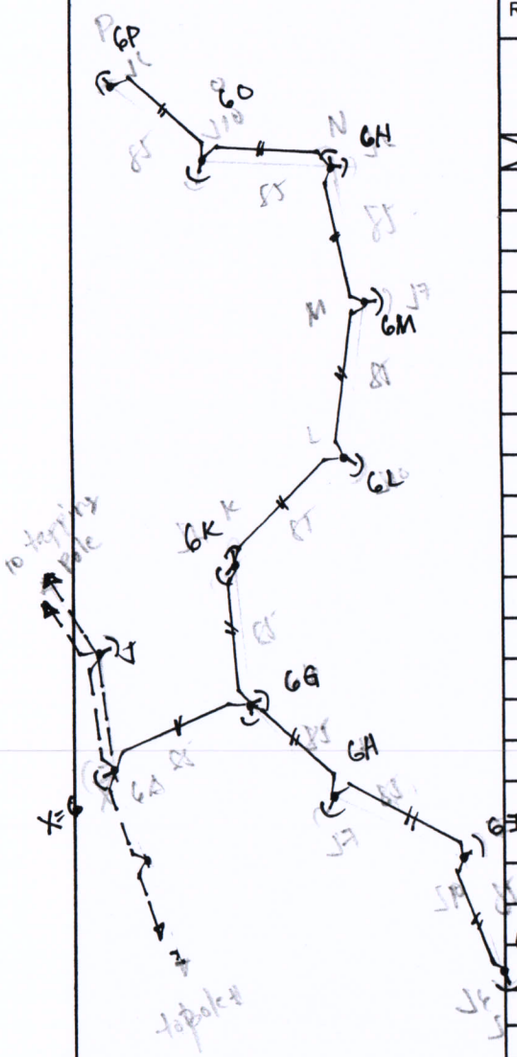
Proj. No. 1484T (c) Page No. 1 (c)
Checked by _____ Staked By KT
Date _____ Date 4/26/21
Released By _____ Final Inv. By _____
Date _____ Date _____

POLE NO	PRI. BACK SPAN MTRS	POLE H	POLE C	PRI. POLE TOP UNIT (A,B,C,)	LINE ANGLE	TRANS-FORMER "G"	GND. "M2"	GUY "E"	LEAD M	ANC "F"	SECONDARY SPAN MTRS	SEC or U.B	WIRE SIZE	NO.	"J"	SERVICE DROP MTRS	NO.	SIZE	MISC. UNITS "M"	R / W RI-	CONS	MEMBER NAME AND NO. OR REMARKS
	QUAN C	Q	CODE	Q CODE		Q CODE	Q CODE	Q CODE		Q CODE	QUAN	CODE		Q	CODE	QUAN C			Q CODE	Q CODE	Q C	COMPUTER CODING
X	Equal to Pole #1																					
						G	M2	E		F					J		S		M	RI-		
X	ADD	1	3T SP	1 A2 / AT-1			1-11A							1	6				1 3-11A			
1	7T	1	3T SP	1 A1			1-11A				7T	1WB	2/0 H	1	J							
2	7T	1	3T SP	1 A2			1-11A	1 1-2	6	1 2-1	7T	1WB	2/0 H	1	10							
3	70	1	3T SP	1 A3			1-11A	1 1-2	6	1 2-1	70	1WB	2/0 H	1	7							
4	70	1	3T SP	1 A4			1-11A	2 1-2	6	2 2-1	70	1WB	2/0 H	2	6							
4A		1	3T SP				1-11A	1 1-2	6	1 2-1	80	2WA	2/0 H	2	15							
														2	6							
J	7T	1	3T SP	1 A3			1-11A	1 1-2	6	1 2-1	7T	1WB	2/0 H	1	7							
6	80	1	3T SP	1 AT		1 G10-10	1-11A	2 1-2	6	2 2-1	80	1WB	2/0 H	1	10				1 3-11A			
6A		1	3T SP				1-11A				7T	2WH	2/0 H	2	6				1 J-1			
6B		1	3T SP				1-11A	1 1-2	6	1 2-1	7T	2WA	2/0 H	1	8				1 J-30			
6C		1	3T SP				1-11A	2 1-2	6	2 2-1	70	2WH	2/0 H	2	10							
6D		1	3T SP				1-11A				80	2WA	2/0 H	4	6							
6E		1	3T SP				1-11A	2 1-2	6	2 2-1	80	2WH	2/0 H	2	6							
6F		1	3T SP				1-11A	1 1-2	6	1 2-1	9T	2WH	2/0 H	4	6							
														2	7T							

QUAN	C	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	QUAN	CODE		Q	C	QUAN	C		Q	CODE	Q	CODE	Q	C	QUAN	CODE	
4T	1	14	3T SP	1	A1		G	14	M2-11A	14	E 1-2	14	F 2-1		2WD		2	J T		2S	D	2	M 3-11A		RI		R		D	ACSR
	2			1	A2		G		M2-		E		F	4T	IW	1/0	19	J 6				2	M J-1		RI		C		D	ACSR
	3			2	A3		G		M2-		E		F				2	J 7		3S	D	1	M J-30		RI		PB			
	DC			1	A4		G		M2-		E		F	4T	IUB	2/0 H	1	J 8					M				LP		N	-INS
				1	AT									4T	IW	2/0 N	4	10									IR		D	-DUP
	TTL	6F		1	AT-1											D	4	N									SL			

SKETCH

SEE SHEET NO. 1



SEE SHEET NO. End.

NATIONAL ELECTRIFICATION ADMINISTRATION
QUEZON CITY

PRIMARY COND 1-#1/0 6/1 ACSR
NEUTRAL COND 1-#1/0 6/1 ACSR
RULING SPAN — METERS

STAKING SHEET

PROJECT NAME IUEC0-1 / SEP 2021
SUBSTATION Tigbauan, IJ
LINE Section #1 1Ø Primary Line Extension tap Sitio Tarlac, Bgy. Banagan, Leon

SHEET NO. 2
OF 2
MAP REF.

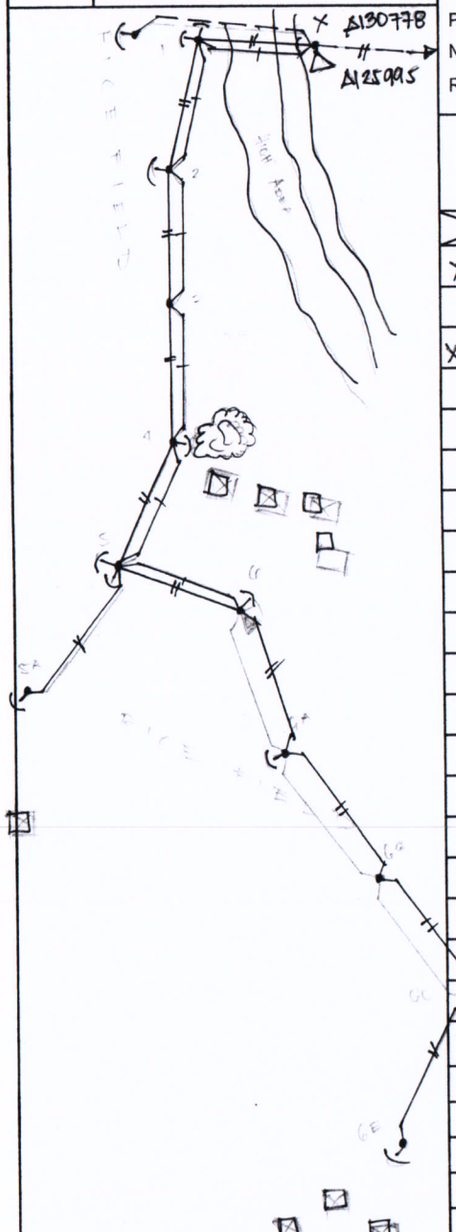
Proj. No. 14045 (c) Page No. 2 (c)
Checked by _____ Staked By KT
Date _____ Date 4/26/21
Released By _____ Final Inv. By _____
Date _____ Date _____

POLE NO	PRI. BACK SPAN MTRS	POLE		PRI. POLE TOP UNIT (A,B,C,)	LINE ANGLE	TRANS-FORMER "G"	GND. "M2"	GUY "E"	LEAD M	ANC "F"	SECONDARY					SERVICE					R / W RI-		CONS		MEMBER NAME AND NO. OR REMARKS
		H	C								SPAN MTRS	SEC or U.B	WIRE SIZE	NO.	"J"	DROP MTRS	NO.	SIZE	MISC. UNITS "M"						COMPUTER CODING
	QUAN C	Q	CODE	Q CODE		Q CODE	Q CODE	Q CODE		Q CODE	QUAN	CODE		Q	CODE	QUAN	C		Q CODE	Q	CODE	Q	C		
X	Equals to Pole #1					Same		Line		Section															
						G	M2	E		F					J		S		M		RI-				
6G		1	3J SP				1-11A	2 1-2	6	2 2-1	8J	2WH	2bH	4	6										
6A		1	3J SP				1-11A	1 1-2	6	1 2-1	8J	2WH	2bH	2	7										
6J		1	3J SP				1-11A	1 1-2	6	1 2-1	8J	2WH	2bH	2	10										
6J		1	3J SP				1-11A	1 1-2	6	1 2-1	8J	2WH	2bH	2	6										
6K		1	3J SP				1-11A	2 1-2	6	2 2-1	8J	2WH	2bH	4	6										
6L		1	3J SP				1-11A	1 1-2	6	1 2-1	8J	2WH	2bA	2	10										
6M		1	3J SP				1-11A	1 1-2	6	1 2-1	8J	2WH	2bA	2	7										
6H		1	3J SP				1-11A	2 1-2	6	2 2-1	8J	2WH	2bH	4	6										
6O		1	3J SP				1-11A	1 1-2	6	1 2-1	8J	2WH	2bH	2	8										
6P		1	3J SP				1-11A	1 1-2	6	1 2-1	8J	2WH	2bH	2	6										

QUAN	C	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	QUAN	CODE		Q	C	QUAN	C		Q	CODE	Q	CODE	Q	C	QUAN	CODE	
	1	10	3J SP				G	10	M2 1A	13	E 1-2	13	F 2-1		2WD		16	J6		2S	D		M		RI		R		D	ACSR
	2						G		M2-		E		F	8J	1W		4	J					M		RI		C		D	ACSR
	3						G		M2-		E		F				6	J10		3S	D		M		RI		PB			
	DC						G		M2-		E		F		IUB		2	4					M				LP		N	-INS
														8J	1W	2% N											IR		D	-DUP
	TTL															D											SL			

SKETCH

SEE SHEET NO. Start



NATIONAL ELECTRIFICATION ADMINISTRATION
QUEZON CITY

PRIMARY COND 1-#1/0 6/1 ACSR
NEUTRAL COND 1-#1/0 6/1 ACSR
RULING SPAN _____ METERS

STAKING SHEET

PROJECT NAME IIECO-1/SEP
SUBSTATION Tigbauan, ss.
LINE Section # Single Phase primary line extension, tap Sitio Tamo-oc, Brgy. Buga, Igbaras

SHEET NO. 1
OF 1
MAP REF. _____

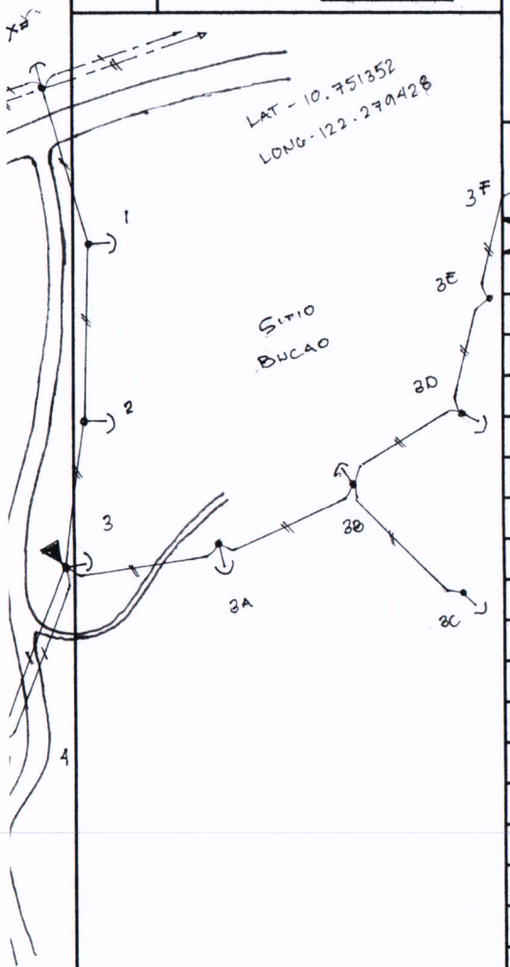
Proj. No. 14043 (c) Page No. 1 (c)
Checked by _____ Staked By E.C.
Date _____ Date 12-8-2014
Released By _____ Final Inv. By _____
Date _____ Date _____

POLE NO	PRI. BACK SPAN MTRS		POLE H	POLE C	PRI. POLE TOP UNIT (A,B,C,)	LINE ANGLE	TRANS-FORMER "G"	GND. "M2"	GUY "E"	LEAD M	ANC "F"	SECONDARY SPAN MTRS	SECONDARY SEC. or U.B	SECONDARY WIRE SIZE	SECONDARY NO.	SECONDARY "J"	SERVICE DROP MTRS	SERVICE NO.	SERVICE SIZE	SERVICE MISC. UNITS "M"	R/W RI-	CONS	MEMBER NAME AND NO. OR REMARKS
	QUAN	C	Q CODE		Q CODE		Q CODE	Q CODE	Q CODE		Q CODE	QUAN	CODE		Q	CODE	QUAN	C		Q CODE	Q CODE	Q C	COMPUTER CODING
X Equals to Pole #					1 LS#		SS#	Page #															
							G	M2	E		F					J		S		M		RI-		
X ADD					1 A5-4															1 3-1/0A			
1	75	1/0	1 35	SP 1 A4				1 1/0A	2 1-2		2 2-1	75	1/0 TRIPLEX	2/0 ACSR	2	6							
2	70	1/0	1 35	SP 1 A2				1 1/0A	1 1-2		1 2-1	70	1/0 TRIPLEX	2/0 ACSR	1	10							
3	75	1/0	1 35	SP 1 A1				1 1/0A				75	1/0 TRIPLEX	2/0 ACSR	1	5							
4	75	1/0	1 35	SP 1 A2				1 1/0A	1 1-2		1 2-1	75	1/0 TRIPLEX	2/0 ACSR	1	10							
5	65	1/0	1 35	SP 1 A4				1 1/0A	2 1-2		2 2-1	65	1/0 TRIPLEX	2/0 ACSR	2	6 5							
5A			1 35	SP				1 1/0A	1 1-2		1 2-1	70	2W	2/0 ACSR	2	6				1 5-1			
6	60	1/0	1 35	SP 1 A5			1 10C-10	1 1/0A	1 1-2		1 2-1	60	1/0 TRIPLEX	2/0 ACSR	1	10				1 5-30 1 3-1/0A			
6A			1 35	SP				1 1/0A	1 1-2		1 2-1	70	2W	2/0 ACSR	1	10							
6B			1 35	SP				1 1/0A				70	2W	2/0 ACSR	1	5 8							
6C			1 35	SP				1 1/0A	1 1-2		1 2-1	70	2W	2/0 ACSR	4 2	6 5							
6D			1 35	SP				1 1/0A	1 1-2		1 2-1	75	2W	2/0 ACSR	2	6							
6E			1 35	SP				1 1/0A	1 1-2		1 2-1	70	2W	2/0 ACSR	2	6							

QUAN	C	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	QUAN	CODE		Q	C	QUAN	C		Q	CODE	Q	CODE	Q C	QUAN	CODE	
420	1/0	12	35 SP	1	A1	1	G10C-10	12	M2-1/0A	12	E 1-2	12	F 2-1		2WD		14	J 6		2S	D	2	M 3-1/0A		RI	R		D	ACSR
	2			2	A2		G		M2-		E		F	425	1W	1/0N	4	J 10				1	M 5-30		RI	C		D	ACSR
	3			2	A4		G		M2-		E		F				2	J 5		3S	D	1	M F1		RI	PB			
	DC			1	A5		G		M2-		E		F	425	IUB	2/0N	2	J 5					M			LP		N	-INS
				1	A5-4									425	1W	2/0N	1	J 8								IR		D	-DUP
	TTL															D										SL			

SKETCH

SEE SHEET NO. START



SEE SHEET NO. 2

NATIONAL ELECTRIFICATION ADMINISTRATION
QUEZON CITY

PRIMARY COND _____ 6/1 ACSR
NEUTRAL COND _____ 6/1 ACSR
RULING SPAN _____ METERS

STAKING SHEET

SHEET NO. 1
OF 3

PROJECT NAME ILECO I
SUBSTATION GUIMBAL SUBSTATION
MAP REF. _____
LINE SECTION # 1Φ Primary line extension tap
Sitio Bucao & Riverside, Brgy - Alaminos, Iloilo

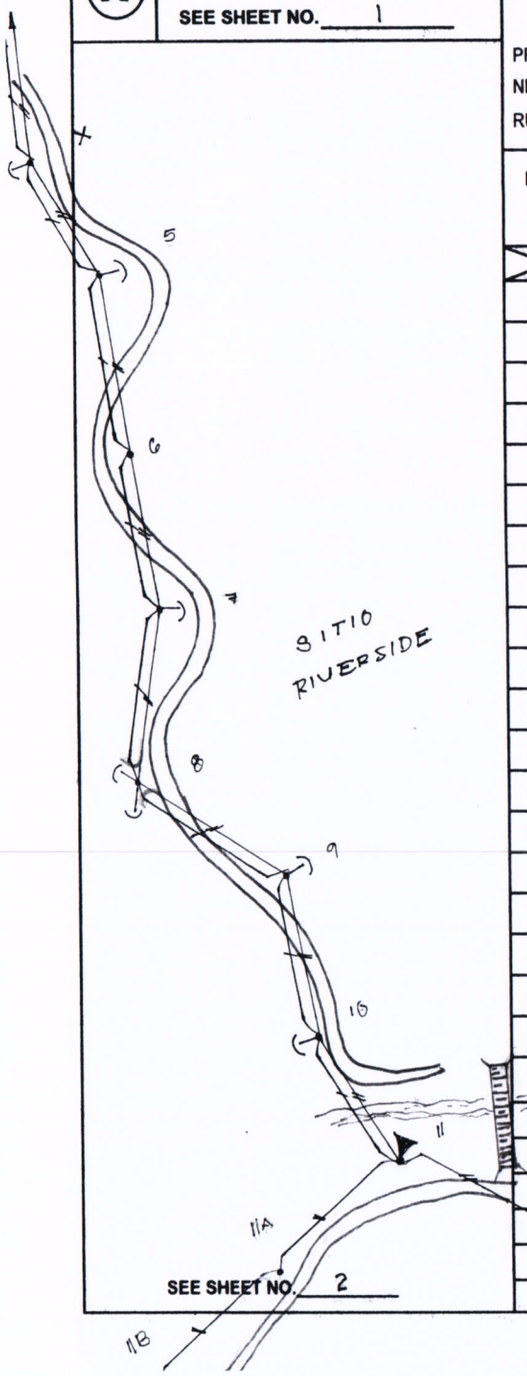
Proj. No. 1401 (c) Page No. 1 (c)
Checked by _____ Staked By CC
Date _____ Date _____
Released By _____ Final Inv. By _____
Date _____ Date _____

POLE NO	PRI. BACK SPAN MTRS	POLE H	POLE C	PRI. POLE TOP UNIT (A,B,C,)	LINE ANGLE	TRANS-FORMER "G"	GND. "M2"	GUY "E"	LEAD M	ANC "F"	SECONDARY SPAN MTRS	SEC or U.B	WIRE SIZE	NO.	"J"	SERVICE DROP MTRS	NO.	SIZE	MISC. UNITS "M"	R / W RI-	CONS	MEMBER NAME AND NO. OR REMARKS
	QUAN C	Q	CODE	Q CODE		Q CODE	Q CODE	Q CODE		Q CODE	QUAN	CODE		Q	CODE	QUAN C			Q CODE	Q CODE	Q C	COMPUTER CODING
X EQUALS TO POLE #					= LS#		= CC#			= PAGE #												
						G	M2	E		F					J		S		M	RI-		
X ADD				1 AS-1															1 F-1 1 3-11A			
1	75 1Φ	1	35 SP	1 A2			1 -11A	1 1-2		1 2-1				1	10							
2	70 1Φ	1	35 SP	1 A2			1 -11A	1 1-2		1 2-1				1	10							
3	75 1Φ	1	35 SP	1 A3		1 105-	1 -11A	1 1-2		1 2-1				1 2	7 15				1 F-1 1 F-30			
3A		1	35 SP				1 -11A	1 1-2		1 2-1	75	2WN	D/O 2/0N	2	10				1 3-11A			
3B		1	35 SP				1 -11A	1 1-2		1 2-1	60	2WN	D/O 2/0N	1 2	5 15							
3C		1	35 SP				1 -11A	1 1-2		1 2-1	70	2WN	D/O 2/0N	2	6							
3D		1	35 SP				1 -11A	1 1-2		1 2-1	60	2WN	D/O 2/0N	2	10							
3E		1	35 SP				1 -11A				65	2WN	D/O 2/0N	1 1	5 8							
3F		1	35 SP				1 -11A	1 1-2		1 2-1	65	2WN	D/O 2/0N	2	6							
4	70 1Φ	1	35 SP	1 A2			1 -11A	1 1-2		1 2-1	70	1UB	2/0N	1	10							

QUAN	C	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	QUAN	CODE		Q	C	QUAN	C		Q	CODE	Q	CODE	Q	C	QUAN	CODE	
290	1Φ	10	35 SP	3	A2		G	10	M2-11A	9	E1-2	9	F2-1		2WD		2	J5		2S	D	2	MF1		RI	R		D	ACSR
	2			1	A0		G		M2-		E		F				4	J6				1	MJ-30		RI	C	754	D 1/0	ACSR
	3			1	AS-1		G		M2-		E		F	305	1W	2/0 N	1	J7		3S	D	2	M3-11A		RI	PB	320	1/0 TREE WIRE	
	DC						G		M2-		E		F	70	IUB	2/0 N	2	J8					M			LP	512	2/0 N	-INS
290	N													305	1W	1/0 N	7	10								IR		D	-DUP
	TTL															D	4	15								SL			

SKETCH

SEE SHEET NO. 1



NATIONAL ELECTRIFICATION ADMINISTRATION
QUEZON CITY

PRIMARY COND _____ 6/1 ACSR
NEUTRAL COND _____ 6/1 ACSR
RULING SPAN _____ METERS

STAKING SHEET

SHEET NO. 2
PROJECT NAME ILECO I OF 3
SUBSTATION GUIMBAL SUBSTATION MAP REF. _____
LINE SECTION # 3

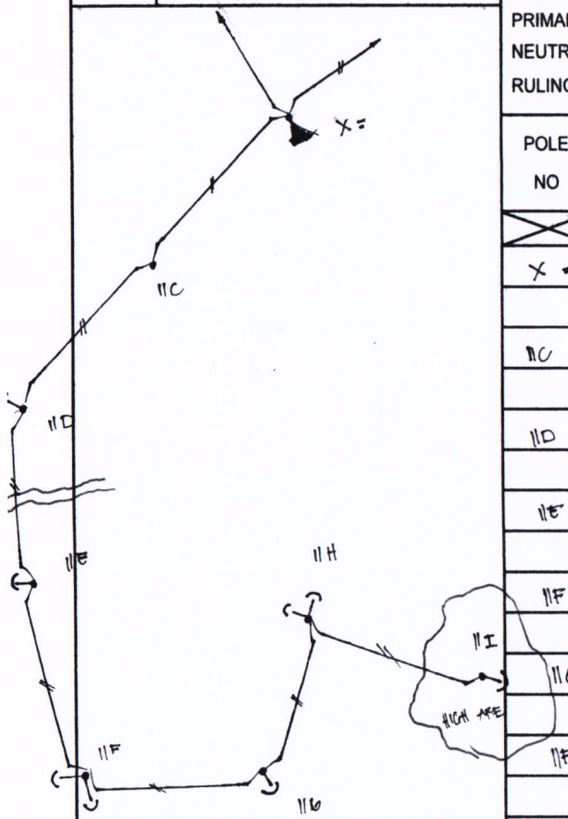
Proj. No. _____ (c) Page No. 1 (c)
Checked by _____ Staked By S.C
Date _____ Date _____
Released By _____ Final Inv. By _____
Date _____ Date _____

POLE NO	PRI. BACK SPAN MTRS	POLE			PRI. POLE TOP UNIT (A,B,C,)	LINE ANGLE	TRANS-FORMER "G"	GND. "M2"	GUY "E"	LEAD M	ANC "F"	SECONDARY					SERVICE					R / W RI-	CONS	MEMBER NAME AND NO. OR REMARKS
			H	C								SPAN MTRS	SEC. or U.B	WIRE SIZE	NO.	"J"	DROP MTRS	NO.	SIZE	MISC. UNITS "M"				
	QUAN C	Q	CODE		Q CODE		Q CODE	Q CODE	Q CODE		Q CODE	QUAN	CODE		Q	CODE	QUAN	C		Q CODE		Q CODE	Q C	COMPUTER CODING
X = 4							G	M2	E		F					J		S		M		RI-		
5	70 10	1	35	SP	1 A2			1 -IIA	1 1-2		1 2-1	70	IUB	2/0 N	1	10								
6	75 10	1	35	SP	1 A1			1 -IIA				75	IUB	2/0 N	1	5								
7	75 10	1	35	SP	1 A2			1 -IIA	1 1-2		1 2-1	75	IUB	2/0 N	1	10								
8	65 10	1	35	SP	1 A4			1 -IIA	2 1-2		2 2-1	65	IUB	2/0 N	2	0								
9	55 10	1	35	SP	1 A3			1 -IIA	1 1-2		1 2-1	55	IUB	2/0 N	1	7								
10	60 10	1	35	SP	1 A2			1 -IIA	1 1-2		1 2-1	60	IUB	2/0 N	1	10								
11	85 10	1	35	SP	1 A5		1 10G-	1 -IIA	1 1-2		1 2-1	85	IUB	2/0 N	3 2	0 15				1 F-1 1 F-30 3 -IIA					
11A		1	35	SP				1 -IIA				70	2WN	2/0 N	1 1	5 8								
11B		1	35	SP				1 -IIA	1 1-2		1 2-1	70	2WN	2/0 N	2	0								

QUAN	C	Q	CODE		Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	QUAN	CODE		Q	C	QUAN	C		Q	CODE	Q	CODE	Q C	QUAN	CODE	
485	1Ø	9	35	SP	1	A1	1	G10G-	9	M2-IIA	8	E 1-2	8	F2-1		2WD		2	J5		2S	D	1	M-1		RI	R		D	ACSR
	2				3	A2		G		M2-		E		F				3	J10				1	M3-IIA		RI	C	688	D 1/0	ACSR
	3				1	A3		G		M2-		E		F	140	1W	2/0 N	7	J6		3S	D	1	M-3A		RI	PB	533	1/0 TREE WIRE	
	DC				1	A4		G		M2-		E		F	485	IUB		1	J7					M			LP	688	2/0 N	-INS
485	N				1	A5									140	1W	1/0 N	1	8								IR		D	-DUP
	TTL																D	2	15								SL			

SKETCH

SEE SHEET NO. 2



SEE SHEET NO. END

NATIONAL ELECTRIFICATION ADMINISTRATION
QUEZON CITY

PRIMARY COND _____ 6/1 ACSR
NEUTRAL COND _____ 6/1 ACSR
RULING SPAN _____ METERS

STAKING SHEET

PROJECT NAME ILECO I
SUBSTATION GUIMBAL SUBSTATION
LINE

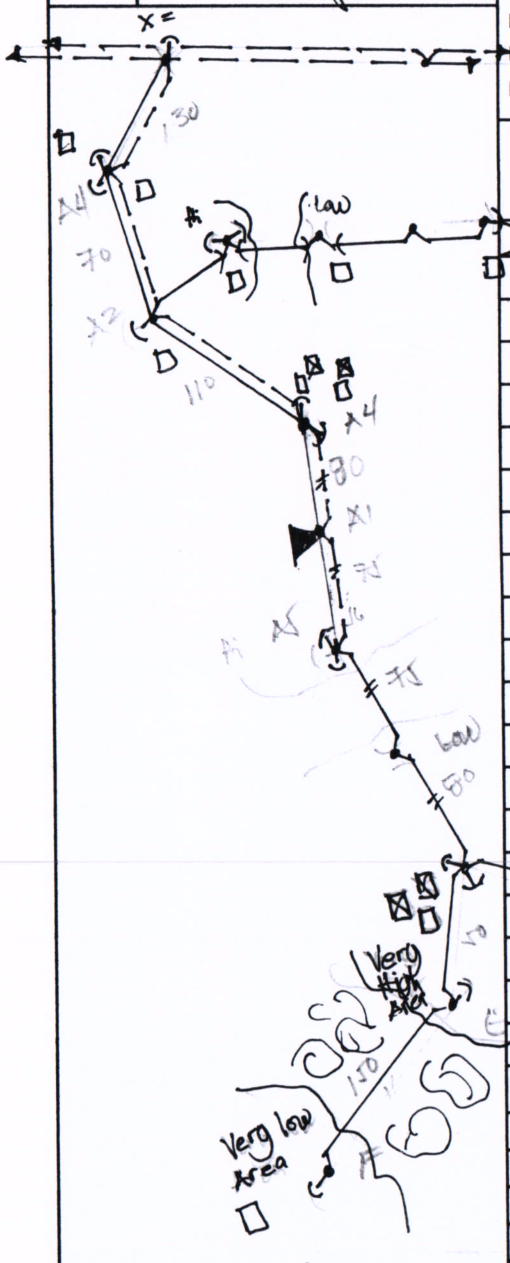
SHEET NO. 3
OF 3
MAP REF. _____

Proj. No. _____ (c) Page No. 1 (c)
Checked by _____ Staked By S.C.
Date _____ Date _____
Released By _____ Final Inv. By _____
Date _____ Date _____

POLE NO	PRI. BACK SPAN MTRS	POLE H	POLE C	PRI. POLE TOP UNIT (A,B,C,)	LINE ANGLE	TRANS-FORMER "G"	GND. "M2"	GUY "E"	LEAD M	ANC "F"	SECONDARY SPAN MTRS	SECONDARY SEC or U.B	SECONDARY WIRE SIZE	SECONDARY NO.	SECONDARY "J"	SERVICE DROP MTRS	SERVICE NO.	SERVICE SIZE	SERVICE MISC. UNITS "M"	R / W RI-	CONS	MEMBER NAME AND NO. OR REMARKS
	QUAN C	Q	CODE	Q CODE		Q CODE	Q CODE	Q CODE		Q CODE	QUAN	CODE		Q	CODE	QUAN	C		Q CODE	Q CODE	Q C	COMPUTER CODING
X =																						
						G	M2	E		F			D'/O		J		S		M	RI-		
11C		1	30	CP			1 -11A				70	2WN	2/0N	1	5 1 8							
11D		1	30	CP			1 -11A	1 1-2		1 2-1	70	2WN	D'/O 2/0N	2	7							
11E		1	30	CP			1 -11A	1 1-2		1 2-1	75	2WN	D'/O 2/0N	2	10							
11F		1	30	CP			1 -11A	2 1-2		2 2-1	70	2WN	D'/O 2/0N	4	6							
11G		1	30	CP			1 -11A	1 1-2		1 2-1	70	2WN	D'/O 2/0N	2	7							
11F		1	30	CP			1 -11A	2 1-2		2 2-1	65	2WN	D'/O 2/0N	4	6							
11I		1	30	CP			1 -11A	1 1-2		1 2-1	70	2WN	D'/O 2/0N	1	6							

QUAN	C	Q	CODE	Q CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	QUAN	CODE		Q	C	QUAN	C		Q	CODE	Q	CODE	Q	C	QUAN	CODE	
	1Φ	7	30	CP				G	7	M2-11A	8	E 1-2	8	F2-1		2WD		1	J5		2S	D		M		RI	R		D	ACSR
	2							G		M2-		E		F				10	J6					M		RI	C		D	ACSR
	3							G		M2-		E		F	490	1W	2/0N	1	J7		3S	D		M		RI	PB			
	DC							G		M2-		E		F		IUB		2	J10					M			LP		N	-INS
	N														490	1W	1/0 N									IR		D	-DUP
	TTL																D									SL			

SKETCH	NATIONAL ELECTRIFICATION ADMINISTRATION QUEZON CITY	STAKING SHEET	
SEE SHEET NO. start	PRIMARY COND 6/1 ACSR	PROJECT NAME IIECO-1 / SEP 2021	Proj. No. 14941 (c) Page No. 1 (c)
	NEUTRAL COND 6/1 ACSR	SUBSTATION Tigbauan SS.	Checked by ___ Staked By K.T.
	RULING SPAN ___ METERS	LINE Section # 1Ø primary line extension and tap, Sitio Talibong, Brgy. Carara-an, Leon	Date ___ Date 4/29/21
		SHEET NO. 1 OF 1 MAP REF.	Released By ___ Final Inv. By ___ Date ___ Date ___



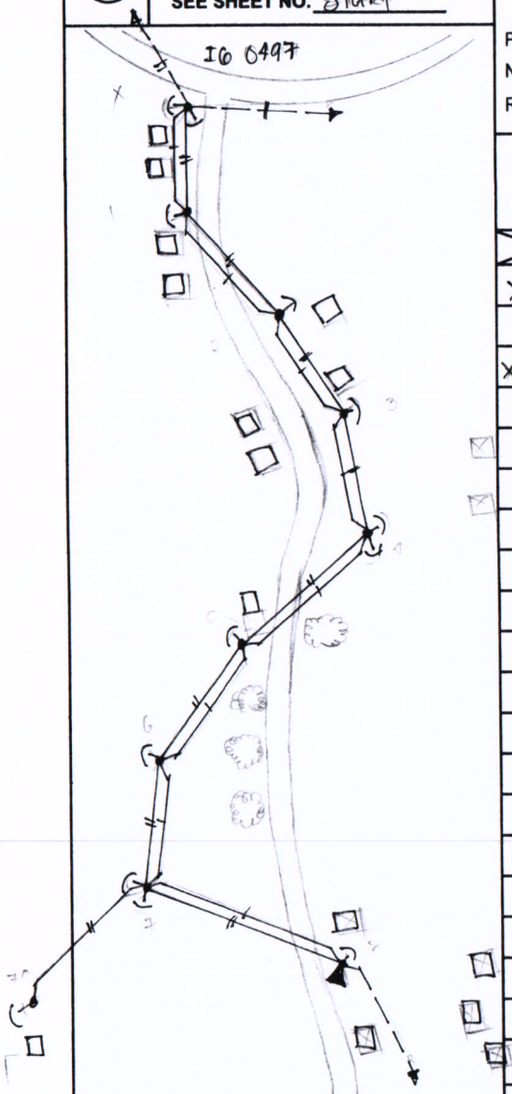
SEE SHEET NO. End.

POLE NO	PRI. BACK SPAN MTRS	POLE (H C)	PRI. POLE TOP UNIT (A,B,C,)	LINE ANGLE	TRANS-FORMER "G"	GND. "M2"	GUY "E"	ANC "F"	SECONDARY SPAN MTRS	SEC or U.B	WIRE SIZE	NO. Q	"J" CODE	SERVICE DROP MTRS	NO. C	SIZE	MISC. UNITS "M"	R/W RI-	CONS Q C	MEMBER NAME AND NO. OR REMARKS / COMPUTER CODING
X Equals to pole #																				
					G	M2	E	F					J		S		M	RI-		
X	ADD		1 AJ-1									2	N5				1 3-11A; 1 J-1			
1	130	1 35SP	1 A4									4	6							5 pcs. 35/SP to be retired and transfer existing kWhr meters.
2	70	1 35SP	1 A2									2	10							
3	110	1 35SP	1 A4									4	6							
4	80	1 35SP	1 A1		1 G9-10							1	5				1 3-11A; 1 J-1; 1 J-30			
5	75	1 35SP	1 A5									2; 2	6; N5							
5A		1 35SP				1-11A			75	2WH	2/0H	2; 2	6; 5							
5B		1 35SP				1-11A	2 1-2	6 2 2-1	50	2WH	2/0H	4; 2	6; N5							
5C		1 35SP				1-11A	1 1-2	6 1 2-1	85	2WH	2/0H	2	10							
5D		1 35SP				1-11A	1 1-2	6 1 2-1	80	2WH	2/0H	2	6							
E		1 35SP				1-11A	1 1-2	6 1 2-1	50	2WH	2/0H	2; 2	6; 5							
F		1 35SP				1-11A	1 1-2	6 1 2-1	50	2WH	2/0H	2	6							

QUAN	C	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	QUAN	CODE		Q	C	QUAN	C		Q	CODE	Q	CODE	Q	C	QUAN	CODE	
465	1	11	35SP	1	A2	1	G9-10	6	M2-11A	6	E1-2	6	F2-1		2WD		2	J10		2S	D	2	M3-11A		RI		R		D	ACSR
	2			1	A1		G		M2-		E		F	520	1W	1/0	12	J6				2	MJ-1		RI		C		D	ACSR
	3			2	A4		G		M2-		E		F				8	J5		3S	D	1	MJ-30		RI		PB			
	DC			1	A5		G		M2-		E		F		IUB			J					M				LP		N	-INS
				1	AJ-1									520	1W	2/0N											IR		D	-DUP
	TTL															D											SL			

SKETCH

SEE SHEET NO. Start



SEE SHEET NO. 2

NATIONAL ELECTRIFICATION ADMINISTRATION
QUEZON CITY

PRIMARY COND 1-#1/0 6/1 ACSR
NEUTRAL COND 1-#1/0 6/1 ACSR
RULING SPAN _____ METERS

STAKING SHEET

PROJECT NAME ILECO-1 / SEP
SUBSTATION Tigbauan S.S
LINE Section # Single phase primary line extension for Sitio Abang, Brgy. Buga, Igbaras.

SHEET NO. 1
OF 2
MAP REF. _____

Proj. No. 14 Ø 43 (c) Page No. 1 (c)
Checked by _____ Staked By S.C.
Date _____ Date 1/8/2019
Released By _____ Final Inv. By _____
Date _____ Date _____

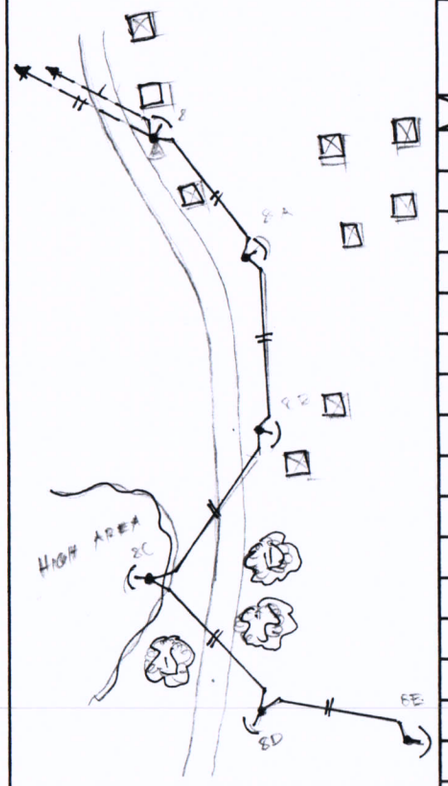
POLE NO	PRI. BACK SPAN MTRS	POLE H	POLE C	PRI. POLE TOP UNIT (A,B,C,)	LINE ANGLE	TRANS-FORMER "G"	GND. "M2"	GUY "E"	LEAD M	ANC "F"	SECONDARY SPAN MTRS	SECONDARY SEC or U.B	SECONDARY WIRE SIZE	SECONDARY NO.	SECONDARY "J"	SERVICE DROP MTRS	SERVICE NO.	SERVICE SIZE	SERVICE MISC. UNITS "M"	R / W RI-	CONS	MEMBER NAME AND NO. OR REMARKS
	QUAN C	Q	CODE	Q CODE		Q CODE	Q CODE	Q CODE		Q CODE	QUAN	CODE		Q	CODE	QUAN	C		Q CODE	Q CODE	Q C	COMPUTER CODING
X Equals to Pole #																						
						G	M2	E		F					J		S		M		RI-	
X ADD	1Ø			1 A5										2	C9				1 3-11A			
1	65 1Ø	1	35 SP	1 A2			1 -11A	1 1-2	1	2-1	65	1UB	2/0 H	1	10							
2	70 1Ø	1	35 SP	1 A2			1 -11A	1 1-2	1	2-1	70	1UB	2/0 H	1	10							
3	70 1Ø	1	35 SP	1 A2			1 -11A	1 1-2	1	2-1	60	1UB	2/0 H	1	10							
4	60 1Ø	1	35 SP	1 A4			1 -11A	1 1-2	1	2-1	60	1UB	2/0 H	2	C6							
5	70 1Ø	1	35 SP	1 A2			1 -11A	1 1-2	1	2-1	70	1UB	2/0 H	1	10							
6	75 1Ø	1	35 SP	1 A2			1 -11A	1 1-2	1	2-1	75	1UB	2/0 H	1	10							
7	80 1Ø	1	35 SP	1 A4			1 -11A	1 1-2	1	2-1	80	1UB	2/0 H	2/2	C6/15							
7A		1	35 SP				1 -11A	1 1-2	1	2-1	70	2W	2/0 H	2	C6							
8	85 1Ø	1	35 SP	1 A5		1 100-10	1 -11A	1 1-2	1	2-1	85	1UB	2/0 H	1	10				1 3-11A 1 M-30 1 M-1			

QUAN	C	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	QUAN	CODE		Q	C	QUAN	C		Q	CODE	Q	CODE	Q C	QUAN	CODE	
77	1Ø	9	35 SP	6	A2	1	G100-10	9	M2-11A	9	E1-2	9	F2-1		2WD		8	J6		2S	D	2	M3-11A		RI	R		D	ACSR
	2	1	35 SP	1	A4		G		M2-		E		F				6	J10				1	M-30		RI	C		D	ACSR
	3			1	A5-1		G		M2-		E		F	70	2W		2	J15		3S	D	1	M-1		RI	PB			
	DC						G		M2-		E		F	77	IUB	1/0 H		J								LP		N	-INS
																N										IR		D	-DUP
	TTL															D										SL			

SKETCH

N

SEE SHEET NO. 1



SEE SHEET NO. End

NATIONAL ELECTRIFICATION ADMINISTRATION
QUEZON CITY

PRIMARY COND — 6/1 ACSR
NEUTRAL COND — 6/1 ACSR
RULING SPAN — METERS

STAKING SHEET

PROJECT NAME: 1LEco-1/SEP
SUBSTATION: Tigbauan S.S.
LINE: Section # Single phase primary line extension tap Sitio Abang, Buga, Igbaras

SHEET NO. 2 OF 2
MAP REF.

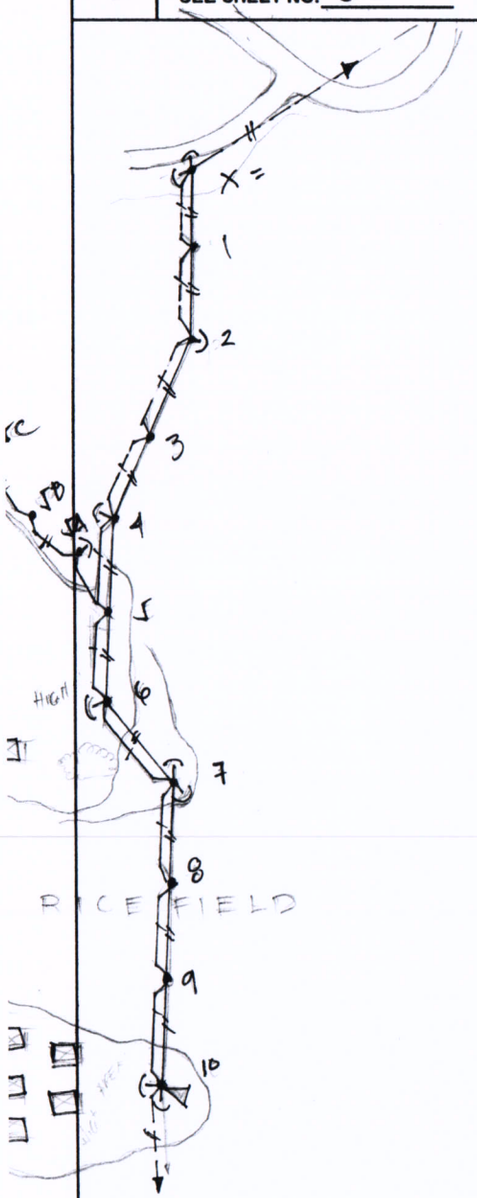
Proj. No. (c) Page No. (c)
Checked by Staked By
Date Date
Released By Final Inv. By
Date Date

POLE NO	PRI. BACK SPAN MTRS	POLE H	POLE C	PRI. POLE TOP UNIT (A,B,C,)	LINE ANGLE	TRANS-FORMER "G"	GND. "M2"	GUY "E"	LEAD M	ANC "F"	SECONDARY SPAN MTRS	SECONDARY SEC or U.B	SECONDARY WIRE SIZE	SECONDARY NO.	SECONDARY "J"	SERVICE DROP MTRS	SERVICE NO.	SERVICE SIZE	SERVICE MISC. UNITS "M"	R / W RI-	CONS	MEMBER NAME AND NO. OR REMARKS
	QUAN C	Q CODE		Q CODE		Q CODE	Q CODE	Q CODE		Q CODE	QUAN	CODE		Q	CODE	QUAN C			Q CODE	Q CODE	Q C	COMPUTER CODING
						G	M2	E		F					J		S		M	RI-		
8A		1 3F	SP				1 -11A	1 1-2		1 F2-1	75	2W	2/0 DN	2	10							
8B		1 3F	SP				1 -11A	1 1-2		1 2-1	65	2W	2/0 DN	2	10							
8C		1 3F	SP				1 -11A	1 1-2		1 2-1	75	2W	2/0 DN	2	7							
8D		1 3F	SP				1 -11A	1 1-2		1 2-1	70	2W	2/0 DN	2	10							
8E		1 30	SP				1 -11A	1 1-2		1 2-1	70	2W	2/0 DN	2	6							

QUAN	C	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	QUAN	CODE		Q	C	QUAN	C		Q	CODE	Q	CODE	Q	C	QUAN	CODE	
	1	1	3F SP				G	1	M2-11A	1	E 1-2	1	F 2-1		2WD		2	JG		2S	D		M		RI	R		D	ACSR
	2						G		M2-		E		F				2	J7					M		RI	C		D	ACSR
	3						G		M2-		E		F	3	2W	0/0 VDN	6	J10		3S	D		M		RI	PB			
	DC						G		M2-		E		F		IUB			J					M			LP		N	-INS
																N									IR		D	-DUP
	TTL															D									SL			

SKETCH

SEE SHEET NO. Start



SEE SHEET NO. 2

NATIONAL ELECTRIFICATION ADMINISTRATION
QUEZON CITY

PRIMARY COND 1 - #1/0 6/1 ACSR
NEUTRAL COND 1 - #1/0 6/1 ACSR
RULING SPAN - METERS

STAKING SHEET

PROJECT NAME ILECO-1 / SEP
SUBSTATION Tigbauan, S.S.
LINE Section # Single phase primary line extension tap
Sitio Caragmaydn, Brgy. Buga, Igbaras

SHEET NO. 1
OF 2

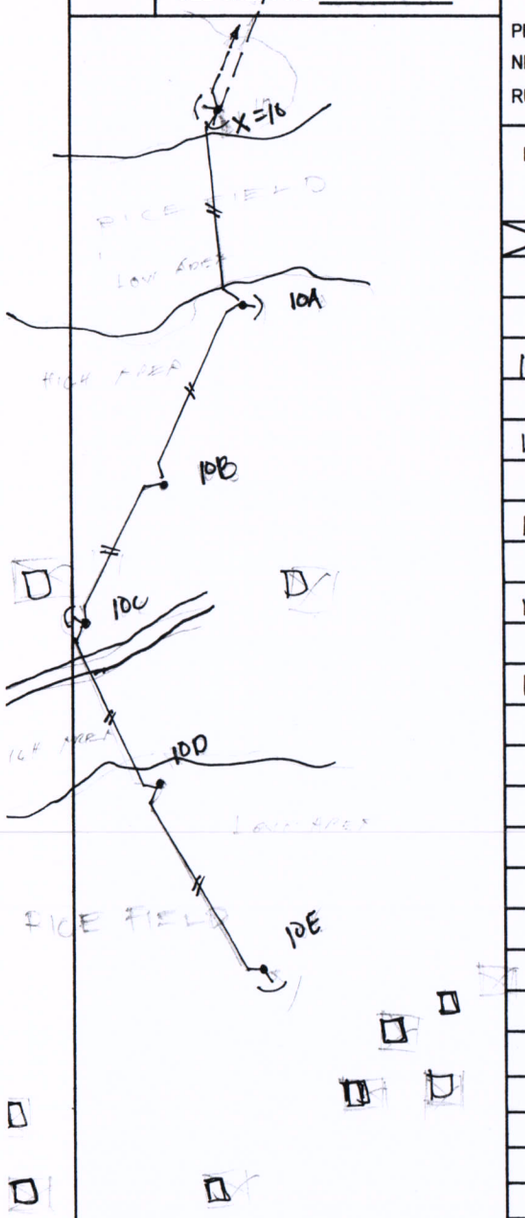
Proj. No. 14043 (c) Page No. 1 (c)
Checked by ____ Staked By S.C.
Date ____ Date 11/8/2019
Released By ____ Final Inv. By ____
Date ____ Date ____

POLE NO	PRI. BACK SPAN MTRS	POLE			PRI. POLE TOP UNIT (A,B,C,)	LINE ANGLE	TRANS-FORMER "G"	GND. "M2"	GUY "E"	LEAD M	ANC "F"	SECONDARY					SERVICE					R / W RI-	CONS	MEMBER NAME AND NO. OR REMARKS
			H	C								SPAN MTRS	SEC. or U.B	WIRE SIZE	NO.	"J"	DROP MTRS	NO.	SIZE	MISC. UNITS "M"				
	QUAN	C	Q	CODE	Q CODE		Q CODE	Q CODE	Q CODE		Q CODE	QUAN	CODE		Q	CODE	QUAN	C		Q	CODE	Q CODE	Q C	COMPUTER CODING
X EQUAL TO POLE #																								
							G	M2	E		F					J		S		1	M-1	RI-		
X ADD					1 AF-2		1													1	3-11A			
1	75	10	1	3P SP	1 AG			1 -11A				75	1UB	2/0 H	1	G								
2	70	10	1	3P SP	1 A2			1 -11A	1 1-2		1 2-1	70	1UB	2/0 H	1	10								
3	80	10	1	3P SP	1 A1			1 -11A				80	1UB	2/0 N	1	J								
4	75	10	1	3P SP	1 A2			1 -11A	1 1-2		1 2-1	75	1UB	2/0 N	1	10								
J	70	10	1	3P SP	1 A1			1 -11A	1 1-2		1 2-1	70	1UB	2/0 H	1 2	J G								
JA			1	3P SP				1 -11A	1 1-2		1 2-1	70	2W	2/0 DN	2	10								
JB			1	3P SP				1 -11A				70	2W	2/0 DN	1 1	J 8								
JC			1	3P SP				1 -11A	1 1-2		1 2-1	70	2W	2/0 DN	2	G								
6	70	10	1	3P SP	1 A2			1 -11A	1 1-2		1 2-1	70	1UB	2/0 H	1	10								
7	70	10	1	3P SP	1 A4			1 -11A	2 1-2		2 2-1	70	1UB	2/0 N	2	G								
8	70	10	1	3P SP	1 A1			1 -11A				70	1UB	2/0 H	1	J								
9	70	10	1	3P SP	1 AG			1 -11A				70	1UB	2/0 N	1	J				1	J-1			
10	70	10	1	3P SP	1 AF		1 GOC-10	1 -11A	1 1-2		1 2-1	70	1UB	2/0 N	1 1	10 N				1 1	3-11A J-30			

QUAN	C	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	QUAN	CODE		Q	C	QUAN	C		Q	CODE	Q	CODE	Q C	QUAN	CODE	
710	1	13	3P SP	3	A1	1	G10C-10	13	M2-11A	10	E 1-2	10	F2-1		2WD		6	J J		2S	D	2	M3-11A		RI	R		D	ACSR
	2			3	A2		G		M2-		E		F	210	1W	1/0	J	J 6				1	M-J-30		RI	C		D	ACSR
	3			1	A4		G		M2-		E		F	210	2W	2/0 DN	1	J 8		3S	D	2	MJ-1		RI	PB			
	DC			1	AF		G		M2-		E		F	720	1UB	1/0 N	6	J 10					M			LP		N	-INS
				1	AF-2											N										IR		D	-DUP
	TTL			2	AG											D										SL			

SKETCH

SEE SHEET NO. 1



NATIONAL ELECTRIFICATION ADMINISTRATION
QUEZON CITY

PRIMARY COND +
NEUTRAL COND —
RULING SPAN —
6/1 ACSR
6/1 ACSR
METERS

STAKING SHEET

PROJECT NAME: LUECO-1 / SEP
SUBSTATION: Tigbauan S.S.
LINE: Section # Single phase primary line extension tap
Sitio Caragmayan, Brgy. Buga, Igbaras

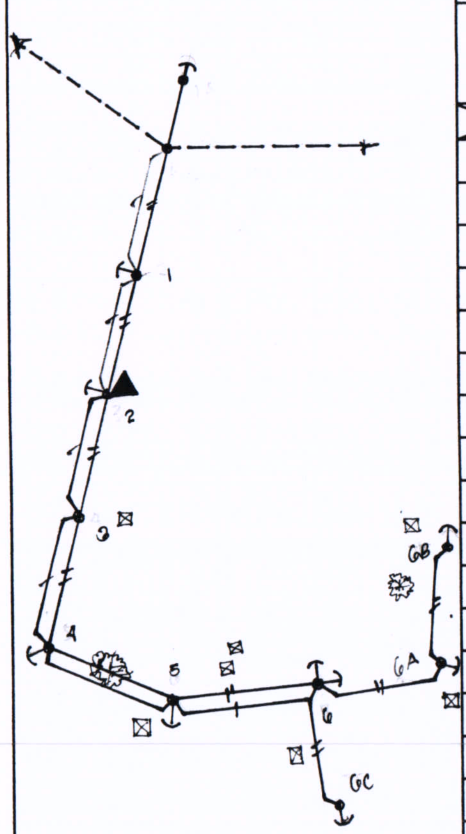
SHEET NO. 2
OF 2
MAP REF.

Proj. No. 14643 (c) Page No. 7 (c)
Checked by
Staked By S.C.
Date
Date 1/8/2019
Released By
Final Inv. By
Date
Date

POLE NO	PRI. BACK SPAN MTRS	POLE H	POLE C	PRI. POLE TOP UNIT (A,B,C,)	LINE ANGLE	TRANS-FORMER "G"	GND. "M2"	GUY "E"	LEAD M	ANC "F"	SECONDARY SPAN MTRS	SECONDARY SEC or U.B	SECONDARY WIRE SIZE	SECONDARY NO.	SECONDARY "J"	SERVICE DROP MTRS	SERVICE NO.	SERVICE SIZE	SERVICE MISC. UNITS "M"	R / W RI-	CONS	MEMBER NAME AND NO. OR REMARKS
	QUAN C	Q CODE		Q CODE		Q CODE	Q CODE	Q CODE		Q CODE	QUAN	CODE		Q	CODE	QUAN C			Q CODE	Q CODE	Q C	COMPUTER CODING
						G	M2	E		F					J		S		M	RI-		
10A		1 3F	SP				1-11A	1 1-2		1 2-1	90	2W	2/0 DN	2	10							
10B		1 3F	SP				1-11A				75	2W	2/0 DN	1 1	8							
10C		1 3F	SP				1-11A	1 1-2		1 2-1	70	2W	2/0 DN	2	7							
10D		1 3F	SP				1-11A				70	2W	2/0 DN	1 1	8							
10E		1 3F	SP				1-11A	1 1-2		1 2-1	70	2W		2	6							

QUAN	C	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	QUAN	CODE		Q	C	QUAN	C		Q	CODE	Q	CODE	Q	C	QUAN	CODE	
	1	1	3F SP				G	1	M2-11A	3	E 1-2	3	F2-1		2WD		2	JF		2S	D		M		RI	R		D	ACSR
	2						G		M2-		E		F	3F	2W	1/0 DN	2	JF					M		RI	C		D	ACSR
	3						G		M2-		E		F				2	J10		3S	D		M		RI	PB			
	DC						G		M2-		E		F		IUB		2	J8					M			LP		N	-INS
																N	2	6								IR		D	-DUP
	TTL															D										SL			

SKETCH	NATIONAL ELECTRIFICATION ADMINISTRATION QUEZON CITY	STAKING SHEET	
SEE SHEET NO. START	PRIMARY COND 1-#1/0 TW 6/1 ACSR	PROJECT NAME ILECO-I	Proj. No. 14044 (c) Page No. 1 (c)
	NEUTRAL COND 1-#1/0 6/1 ACSR	SUBSTATION TIGBAUAN, ILOILO	Checked by ____ Staked By S.C.
	RULING SPAN ____ METERS	LINE SECTION No 1φ Primary line extension tap Sitio Lawod, Brgy. Ginee, Leon	Date ____ Date ____
		SHEET NO. 1 OF 1 MAP REF. ____	Released By ____ Final Inv. By ____ Date ____ Date ____



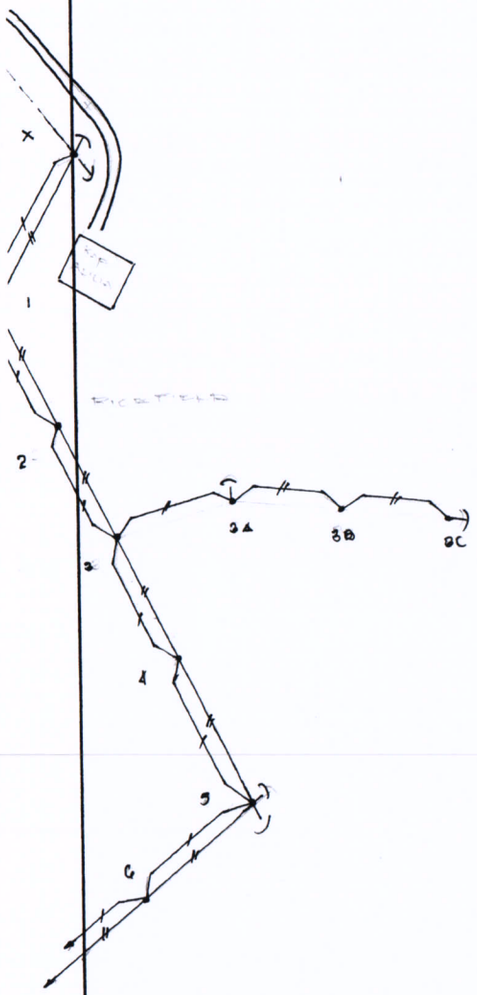
SEE SHEET NO. END

POLE NO	PRI. BACK SPAN MTRS QUAN	C	POLE Q	POLE H	POLE C (CODE)	PRI. POLE TOP UNIT (A,B,C,) Q	CODE	LINE ANGLE	TRANS-FORMER "G" Q	CODE	GND. "M2" Q	CODE	GUY "E" Q	CODE	LEAD	ANC "F" Q	CODE	SECONDARY SPAN MTRS QUAN	SEC or U.B CODE	WIRE SIZE	N O. Q	"J" CODE	SERVICE DROP MTRS QUAN	N O. C	SIZE	MISC. UNITS "M" Q	CODE	R/W RI- Q	CODE	CONS Q	C	MEMBER NAME AND NO. OR REMARKS / COMPUTER CODING
										G		M2		E			F					J		S			M		RI-			
x ADD		1φ	1	35	CP	1	A5-1														1	6				1 1	J-1 3-11A					
			1	30	SP	1	,						1	1-2		1	2-1															
1	70	1φ	1	35	SP	1	A1-1				1	11A	1	1-2		1	2-1	70	1UB	2/0H	1	5										
2	70	1φ	1	35	SP	1	A1-1		1	10E-10	1	11A	1	1-2		1	2-1	70	1UB	2/0H	1	5				1 1 1	E-1 5-20 E-8HA					
3	75	1φ	1	35	SP	1	A1				1	11A						75	1UB	2/0H	1	5										
4	75	1φ	1	35	SP	1	A3				1	11A	1	1-2		1	2-1	75	1UB	2/0H	1	7										
5	75	1φ	1	35	SP	1	A2				1	11A	1	1-2		1	2-1	75	1UB	2/0H	1	10										
6	75	1φ	1	35	SP		A5				1	11A	2	1-2		2	2-1	75	1UB	2/0H	3 2	6 15										
6A			1	30	SP						1	11A	1	1-2		1	2-1	70	2W	2/0H	2	7										
6B			1	30	SP						1	11A	1	1-2		1	2-1	70	2W	2/0H	2	6										
6C			1	30	SP						1	11A	1	1-2		1	2-1	70	2W	2/0H	2	6										

QUAN	C	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	QUAN	CODE		Q	C	QUAN	C		Q	CODE	Q	CODE	Q	C	QUAN	CODE	
440 TW	1φ	9	30 SP	1	A1	1	G 10E-10	9	M2-1A	10	E 1-2	10	F 2-1		2WD	1/0	3	J5		2S	D	2	M J-1		RI		R	447	D 1/0 TW	ACSR
	2	9	35 SP	2	A1-1		G		M2-		E		F	210	1W		10	J6				1	M J-30		RI		C	668	D 1/0	ACSR
	3			1	A2		G		M2-		E		F				3	J7		3S	D	2	M3-11A		RI		PB			
	DC			1	A3		G		M2-		E		F	440	IUB	2/0 N	1	J10					M				LP	E81	2/0 N	-INS
				1	A5									210	1W	2/0 N	2	J15									IR		D	-DUP
447	TTL															D											SL			

SKETCH

SEE SHEET NO. START



SEE SHEET NO. 1

NATIONAL ELECTRIFICATION ADMINISTRATION
QUEZON CITY

PRIMARY COND 1-#1/tree wire 6/1 ACSR
NEUTRAL COND _____ 6/1 ACSR
RULING SPAN _____ METERS

STAKING SHEET

PROJECT NAME IVE CO-1 (SEC)
SUBSTATION Cabatuan SS.
LINE Section #1 Single phase primary line extension tap Sitio Zone 1, Brgy. Ito Norte, Cabatuan

SHEET NO. 1
OF 2
MAP REF. _____

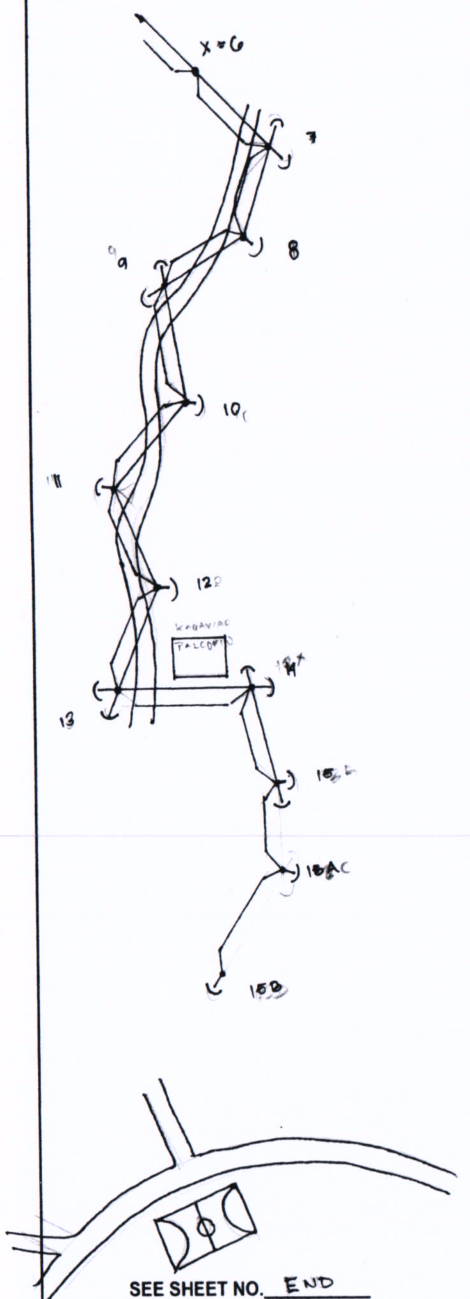
Proj. No. 1644 (c) Page No. 1 (c)
Checked by _____ Staked By JAG / JEL
Date _____ Date 01-17-2020
Released By _____ Final Inv. By _____
Date _____ Date _____

POLE NO	PRI. BACK SPAN MTRS	POLE H	POLE C	PRI. POLE TOP UNIT (A,B,C,)	LINE ANGLE	TRANS-FORMER "G"	GND. "M2"	GUY "E"	LEAD M	ANC "F"	SECONDARY SPAN MTRS	SEC. or U.B	WIRE SIZE	NO.	"J"	SERVICE DROP MTRS	NO.	SIZE	MISC. UNITS "M"	R / W RI-	CONS	MEMBER NAME AND NO. OR REMARKS
	QUAN C	Q	CODE	Q CODE		Q CODE	Q CODE	Q CODE		Q CODE	QUAN	CODE		Q	CODE	QUAN	C		Q CODE	Q CODE	Q C	COMPUTER CODING
X ADD				1 A5-4		G	M2	E		F					J		S		1 MJ-1 1 M3-11A	RI-		
1	60 10	1	35 SP	1 A2			1 M2-1A	1 E-2		1 F2-1	60	1UB	2/0 H	1	10							
2	60 10	1	35 SP	1 A6			1 M2-1A	1 E-2		1 F2-1	60	1UB	2/0 H	2	6							
3	65 10	1	35 SP	1 A1			1 M2-1A	1 E-2		1 F2-1	65	1UB	2/0 H	1	5							
3A		1	35 SP				1 M2-1A	1 E-2		1 F2-1	60	2W	2/0 H	2	10							
3B		1	35 SP				1 M2-1A				60	2W	2/0 H	1 1	5 10							
3C		1	35 SP				1 M2-1A	1 E-2		1 F2-1	60	2W	2/0 H	2	6							
4	65 10	1	35 SP	1 A1			1 M2-1A				65	1UB	2/0 H	1 1	5 8							
5	65 10	1	35 SP	1 A4			1 M2-1A	2 E-2		2 F2-1	65	1UB	2/0 H	4	6							
6	65 10	1	35 SP	1 A1			1 M2-1A				65	1UB	2/0 H	1 1	5 8							

QUAN	C	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	QUAN	CODE		Q	C	QUAN	C		Q	CODE	Q	CODE	Q	C	QUAN	CODE	
380	10	9	35 SP	3	A1		G	9	M2-1A	7	E1-2	7	F2-1		2WD		1	J5		2S	D	1	MJ-1		RI	R	418	D TREE WIRE	ACSR
	2			1	A2		G		M2-		E		F				8	J6				1	M3-11A		RI	C		D	ACSR
	3			1	A4		G		M2-		E		F	180	1W		3	J8		3S	D		M		RI	PB	616	1/0	
	DC			1	A6		G		M2-		E		F	380	1UB	2/0 N	3	J10					M			LP	616	3/0 N	-INS
				1	A5-4									180	1W	2/0 N										IR		D	-DUP
418	TTL															D										SL			

SEE SHEET NO. 2

SKETCH	NATIONAL ELECTRIFICATION ADMINISTRATION QUEZON CITY	STAKING SHEET	
(N) SEE SHEET NO. 2	PRIMARY COND 1-#1/0 tree wire 6/1 ACSR NEUTRAL COND ______ 6/1 ACSR RULING SPAN ______ METERS	PROJECT NAME IRECO-1 (SEP) SUBSTATION Cabatuan SS. LINE Section # Single phase primary line extension tap Sitio Zone IV, Brgy. Ito Norte, Cabatuan SHEET NO. 2 OF 2 MAP REF. ______	Proj. No. ______ (c) Page No. 2 (c) Checked by ______ Staked By ______ Date ______ Date ______ Released By ______ Final Inv. By ______ Date ______ Date ______

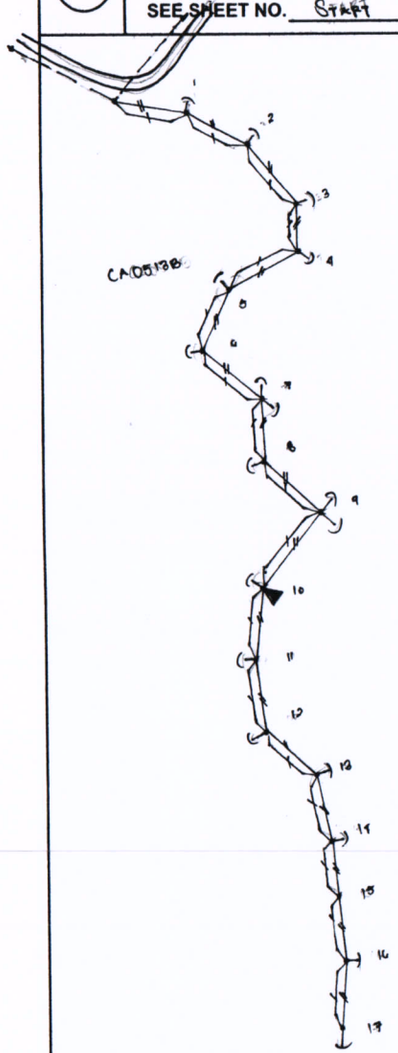


POLE NO	PRI. BACK SPAN MTRS QUAN	C	POLE Q	POLE H CODE	POLE C CODE	PRI. POLE TOP UNIT (A,B,C,) Q	CODE	LINE ANGLE	TRANS-FORMER "G" Q	CODE	GND. "M2" Q	CODE	GUY "E" Q	CODE	LEADM	ANC "F" Q	CODE	SECONDARY SPAN MTRS QUAN	SEC or U.B CODE	WIRE SIZE	NO. Q	"J" CODE	SERVICE DROP MTRS QUAN	NO. C	SIZE	MISC. UNITS "M" Q	CODE	R/W RI- Q	CODE	CONS Q	C	MEMBER NAME AND NO. OR REMARKS / COMPUTER CODING
X- EQUAL TO POLE # 6										G		M2		E			F					J		S			M		RI-			
7	65	1φ	1	35	SP	1	A4				1	-11A	2	1-2		2	2-1	65	1UB	2/0 H	2	6										
8	50	1φ	1	35	SP	1	A3				1	-11A	1	1-2		1	2-1	50	1UB	2/0 H	1	7										
9	35	1φ	1	35	SP	1	A4				1	-11A	2	1-2		2	2-1	35	1UB	2/0 H	2	6										
10	60	1φ	1	35	SP	1	A2				1	-11A	1	1-2		1	2-1	60	1UB	2/0 H	1	10										
11	65	1φ	1	35	SP	1	A2		1	100-10	1	-11A	1	1-2		1	2-1	65	1UB	2/0 H	1	10				1 1	S-1 S-30					
																										1	3-11					
12	60	1φ	1	35	SP	1	A2				1	-11A	1	1-2		1	2-1	60	1UB	2/0 H	1	10										
13	60	1φ	1	35	SP	1	A4				1	-11A	2	1-2		2	2-1	60	1UB	2/0 H	2	6										
14	70	1φ	1	35	SP	1	A4				1	-11A	2	1-2		2	2-1	70	1UB	2/0 H	2	6										
15	65	1φ	1	35	SP	1	A5				1	-11A	1	1-2		1	2-1	65	1UB	2/0 A	1	10										
15A			1	35	SP						1	-11A	1	1-2		1	2-1	75	2W	2/0 A	1	6										
15B			1	35	SP						1	-11A	1	1-2		1	2-1	60	2W	2/0 A	2	6										

QUAN	C	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	QUAN	CODE	X	Q	C	QUAN	C	X	Q	CODE	Q	CODE	Q	C	QUAN	CODE	X
√50	1φ	11	35 SP	4	A4	1	G9-10	11	M2-11A	15	E2-1	15	F2-1		2WD		14	J6		2S	D	1	M5-1		RI		R		D	ACSR
	2			3	A2		G		M2-		E		F	135	1W	1/0	1	J7				1	M5-30		RI		C		D	ACSR
	3			1	A5		G		M2-		E		F				4	J10		3S	D	1	M3-11A		RI		PB			
	DC			1	A3		G		M2-		E		F	550	IUB	2/0 H		J					M				LP		N	-INS
														135	1W	2/0 N											IR		D	-DUP
	TTL															D											SL			

SKETCH

SEE SHEET NO. START



SEE SHEET NO. END

NATIONAL ELECTRIFICATION ADMINISTRATION
QUEZON CITY

PRIMARY COND 1-# 1/0 three wire 6/1 ACSR
NEUTRAL COND _____ 6/1 ACSR
RULING SPAN _____ METERS

STAKING SHEET

PROJECT NAME 1LEco-1 / SEP
SUBSTATION Cabatuan / SS
LINE Section Single Phase primary line extension tap Sitio Zone 7, Brgy. Ito Norte, Cabatuan

SHEET NO. 1
OF 1
MAP REF. _____

Proj. No. 19099 (c) Page No. _____ (c)
Checked by _____ Staked By JBO / JTL
Date _____ Date _____
Released By _____ Final Inv. By _____
Date _____ Date _____

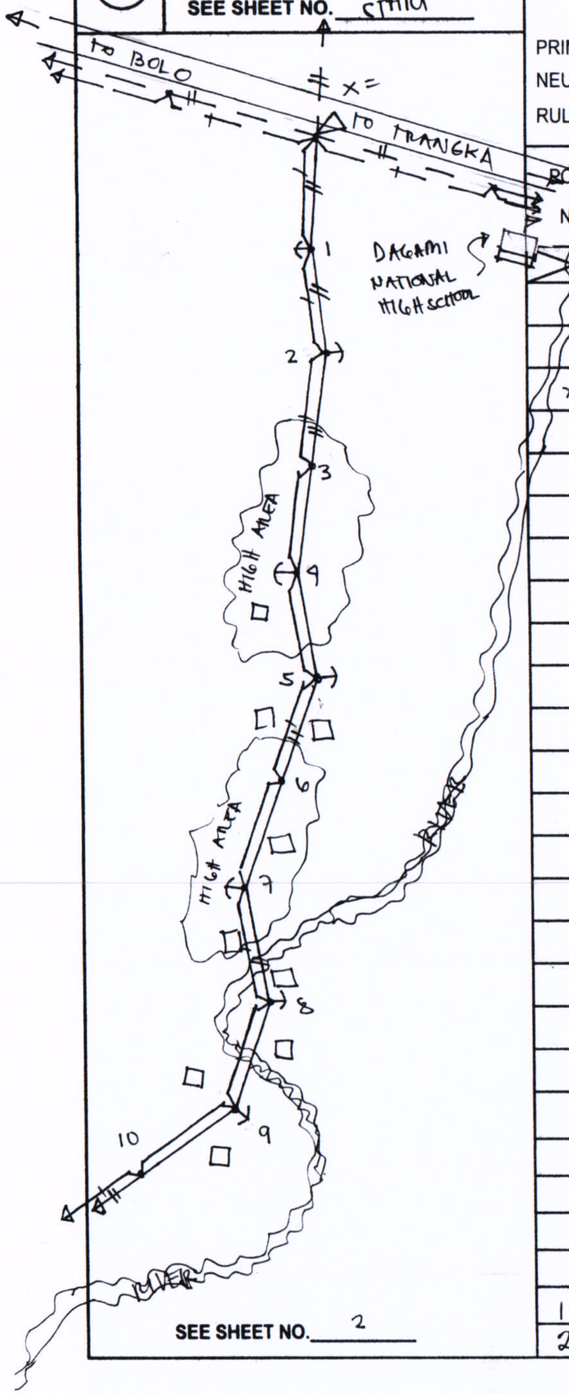
POLE NO	PRI. BACK SPAN MTRS	POLE			PRI. POLE TOP UNIT (A,B,C,)	LINE ANGLE	TRANS-FORMER "G"	GND. "M2"	GUY "E"	LEAD M	ANC "F"	SECONDARY					SERVICE				R / W RI-	CONS	MEMBER NAME AND NO. OR REMARKS
			H	C								SPAN MTRS	SEC. or U.B	WIRE SIZE	NO.	"J"	DROP MTRS	NO.	SIZE	MISC. UNITS "M"			
	QUAN	C	Q	CODE	Q CODE		Q CODE	Q CODE	Q CODE		Q CODE	QUAN	CODE		Q	CODE	QUAN	C		Q CODE	Q CODE	Q C	COMPUTER CODING
X ADD					1 A5-1										1	G				1 5-20 1 5-311A			
1	65	1Ø	1	35 SP	1 A2		G	1 M2-11A	1 E1-2		1 F2-1	65	1UB	2/0N	1	J10		S		M	RI-		
2	70	1Ø	1	35 SP	1 A2			1 -11A	1 1-2		1 2-1	70	1UB	2/0N	1	10							
3	65	1Ø	1	35 SP	1 A2			1 -11A	1 1-2		1 2-1	65	1UB	2/0N	1	10							
4	65	1Ø	1	35 SP	1 A3			1 -11A	1 1-2		1 2-1	65	1UB	2/0N	1	7							
5	80	1Ø	1	35 SP	1 A2			1 -11A	1 1-2		1 2-1	80	1UB	2/0N	1	10							
6	70	1Ø	1	35 SP	1 A3			1 -11A	1 1-2		1 2-1	70	1UB	2/0N	1	7							
7	70	1Ø	1	35 SP	1 A4			1 -11A	2 1-2		2 2-1	70	1UB	2/0N	2	6							
8	70	1Ø	1	35 SP	1 A2			1 -11A	1 1-2		1 2-1	70	1UB	2/0N	1	8							
9	75	1Ø	1	35 SP	1 A4			1 -11A	2 1-2		2 2-1	75	1UB	2/0N	2	6							
10	75	1Ø	1	35 SP	1 A3		1 G9-10	1 -11A	1 1-2		1 2-1	75	1UB	2/0N	1	7				1 5-1 1 5-311A			
11	65	1Ø	1	35 SP	1 A2			1 -11A	1 1-2		1 2-1	65	1UB	2/0N	1	10							
12	60	1Ø	1	35 SP	1 A2			1 -11A	1 1-2		1 2-1	60	1UB	2/0N	1	10							
13	60	1Ø	1	35 SP	1 A2			1 -11A	1 1-2		1 2-1	60	1UB	2/0N	1	10							
14	60	1Ø	1	35 SP	1 A6			1 -11A	1 1-2		1 2-1	60	1UB	2/0N	2	6							
15	55	1Ø	1	35 SP	1 A1			1 -11A				55	1UB	2/0N	1	5							
16	60	1Ø	1	35 SP	1 A2			1 -11A	1 1-2		1 2-1	60	1UB	2/0N	1	10							
17	60	1Ø	1	35 SP	1 A5			1 -11A	1 1-2		1 2-1	60	1UB	2/0N	1	6							

QUAN	C	Q	CODE	Q CODE		Q	CODE	Q CODE	Q CODE	Q CODE	QUAN	CODE		Q	C	QUAN	C		Q	CODE	Q	CODE	Q C	QUAN	CODE	
1125	1Ø	17	35 SP	1 A1		1	G105-10	17 M2-11A	18 E1-2	18 F2-1		2WD		1	J5		2S	D	2	M5-1		RI	R		D	ACSR
	2			8 A2			G	M2-	E	F				8	J6				1	M5-20		RI	C		D	ACSR
	3			3 A3			G	M2-	E	F				9	J10		3S	D	2	M5-311A		RI	PB			
	DC			2 A4			G	M2-	E	F	1125	1UB	2/0N	3	J7					M			LP		N	-INS
				1 A6									N										IR		D	-DUP
1131	TTL			1 A5									D										SL			

1 A5-1

[DIR. MALONES CONCERN]

N	**SKETCH** SEE SHEET NO. START



SEE SHEET NO. 2

NATIONAL ELECTRIFICATION ADMINISTRATION
QUEZON CITY

PRIMARY COND 1-#1/0N 6/1 ACSR
NEUTRAL COND 1-#1/0 6/1 ACSR
RULING SPAN ______ METERS

STAKING SHEET

SHEET NO. 1 OF 2
PROJECT NAME ILECO-1
SUBSTATION CABATUAN 10/10
MAP REF. ______
LINE SECTION # , 1⌀ PRIMARY LINE EXTENSION TAP TO SITIO CALAWING, BRGY. DAGAMI, MAASIN, (SEP 2018)

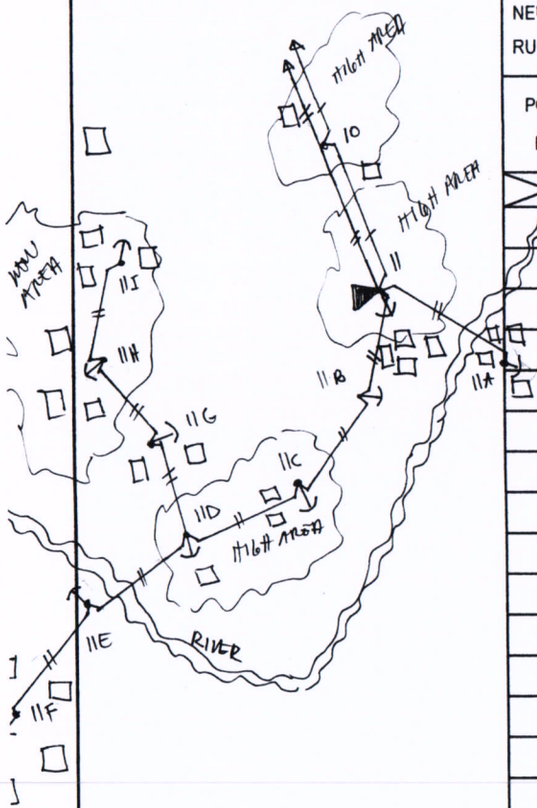
Proj. No. 14⌀42 (c) Page No. 1 (c)
Checked by ______ Staked By S.C
Date ______ Date 07/07/18
Released By ______ Final Inv. By ______
Date ______ Date ______

POLE NO	PRI. BACK SPAN MTRS QUAN	C	POLE Q	POLE H CODE	POLE C	PRI. POLE TOP UNIT (A,B,C,) Q	CODE	LINE ANGLE	TRANS-FORMER "G" Q	CODE	GND. "M2" Q	CODE	GUY "E" Q	CODE	LEAD M	ANC "F" Q	CODE	SECONDARY SPAN MTRS QUAN	SEC or U.B CODE	WIRE SIZE	N O. Q	"J" CODE	SERVICE DROP MTRS QUAN	N O. C	SIZE	MISC. UNITS "M" Q	CODE	R/W RI- Q	CODE	CONS Q	C	MEMBER NAME AND NO. OR REMARKS / COMPUTER CODING
X EQUAL TO POLE#									, LS#		, SS#			, PAGE#					, 1⌀ PRIMARY LINE, NAGBA TO TRANKA, MAASIN													
										G		M2		E			F					J		S			M		RI-			
X ADD				(35	SP)	1	A5-2																			1, 1	5-1, 3-11A					POLE# MA0775
1	110	1⌀	1	35	SP	1	A2				1	11A	1	1-2	8	1	2-1	110	1UB	2/0N	1	10										
2	95	1⌀	1	35	SP	1	A2				1	11A	1	1-2	8	1	2-1	95	1UB	2/0N	1	10										
3	91	1⌀	1	35	SP	1	A1				1	11A						91	1UB	2/0N	1	5										
4	125	1⌀	1	35	SP	1	A2				1	11A	1	1-2	8	1	2-1	125	1UB	2/0N	1	10										
5	120	1⌀	1	35	SP	1	A3				1	11A	1	1-2	8	1	2-1	120	1UB	2/0N	1	7										
6	115	1⌀	1	35	SP	1	A1				1	11A						115	1UB	2/0N	1	5										
7	105	1⌀	1	35	SP	1	A2				1	11A	1	1-2	8	1	2-1	105	1UB	2/0N	1	10										
8	95	1⌀	1	35	SP	1	A2				1	11A	1	1-2	8	1	2-1	95	1UB	2/0N	1	10										
9	125	1⌀	1	35	SP	1	A2				1	11A	1	1-2	8	1	2-1	125	1UB	2/0N	1	10										
10	100	1⌀	1	35	SP	1	A1				1	11A						100	1UB	2/0N	1	5										

QUAN	C	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	QUAN	CODE		Q	C	QUAN	C		Q	CODE	Q	CODE	Q	C	QUAN	CODE	
1081	1⌀	10	35SP	3	A1		G	10	M2-11A	7	E1-2	7	F2-1		2WD		3	J5		2S	D	1	M5-1		RI	30	R		D	ACSR
	2			6	A2		G		M2-		E		F				1	J7				1	M3-11A		RI		C	2378	D 1/0	ACSR
	3			1	A3		G		M2-		E		F				6	J10		3S	D		M		RI		PB			
	DC			1	A5-2		G		M2-		E		F	1081	IUB	2/0N		J					M				LP	1189	1/0 N	-INS
1081	NEUTRAL															N											IR		D	-DUP
2162	TTL															D											SL			

SKETCH

SEE SHEET NO. 1



SEE SHEET NO. END

NATIONAL ELECTRIFICATION ADMINISTRATION
QUEZON CITY

PRIMARY COND 1-#1/0 6/1 ACSR
NEUTRAL COND 1-#1/6 6/1 ACSR
RULING SPAN _____ METERS

STAKING SHEET

SHEET NO. _____
OF _____
MAP REF. _____

PROJECT NAME ILECO - 1
SUBSTATION CABATUAN ILOILO
LINE SECTION # 10 PRIMARY LINE EXTENSION TAP TO SITIO KALAWING DAGAMI, MAASIN (SEP 2018)

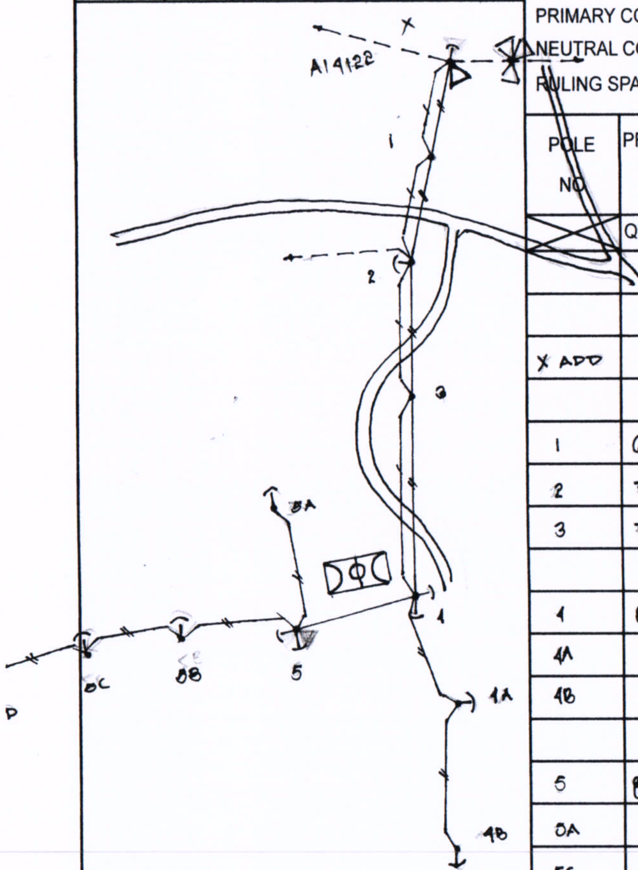
Proj. No. _____ (c) Page No. _____ (c)
Checked by _____ Staked By _____
Date _____ Date _____
Released By _____ Final Inv. By _____
Date _____ Date _____

POLE NO	PRI. BACK SPAN MTRS	POLE			PRI. POLE TOP UNIT (A,B,C,)		LINE ANGLE	TRANS-FORMER "G"		GND. "M2"		GUY "E"		LEAD M	ANC "F"		SECONDARY					SERVICE					R / W RI-		CONS		MEMBER NAME AND NO. OR REMARKS
			H	C													SPAN MTRS	SEC or U.B	WIRE SIZE	NO.	"J"	DROP MTRS	NO.	SIZE	MISC. UNITS "M"						
	QUAN	C	Q	CODE	Q	CODE		Q	CODE	Q	CODE	Q	CODE		Q	CODE	QUAN	CODE		Q	CODE	QUAN	C		Q	CODE	Q	CODE	Q	C	COMPUTER CODING
X	EQUAL TO POLE # 10, US#							US#				PAGE #					10 PRIMARY LINE, BOND TO TANK #, IN MAASIN														
								G		M2		E			F					J		S		M		RI-				
11	125	10	1	35 SP	1	A5		1	106-10	1	11A	1	1-2	8	1	2-1	125	1UB	2/0N	3 2	6 15				1 5-30 1 5-1 1 3-11A						
11A			1	35 SP						1	11A	1	1-2	8	1	2-1	120	2W	2/0N	2	6										
11B			1	35 SP						1	11A	1	1-2	8	1	2-1	110	2W	2/0N	2	10										
11C			1	35 SP						1	11A	1	1-2	8	1	2-1	125	2W	2/0N	2	10										
11D			1	35 SP						1	11A	1	1-2	8	1	2-1	85	2W	2/0N	2 2	10 6										
11E			1	35 SP						1	11A	1	1-2	8	1	2-1	125	2W	2/0N	2	10										
11F			1	35 SP						1	11A	1	1-2	8	1	2-1	105	2W	2/0N	2	6										
11G			1	35 SP						1	11A	1	1-2	8	1	2-1	95	2W	2/0N	2	10										
11H			1	35 SP						1	11A	1	1-2	8	1	2-1	90	2W	2/0N	2	7										
11I			1	35 SP						1	11A	1	1-2	8	1	2-1	85	2W	2/0N	2	6										

QUAN	C	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	QUAN	CODE		Q	C	QUAN	C		Q	CODE	Q	CODE	Q	C	QUAN	CODE	
125	10	10	35 SP	1	A5	1	G 106-10	10	M2-11A	10	E 1-2	10	F 2-1		2WD		11	J6		2S	D	1	MF-3P		RI	R		D	ACSR
	2						G		M2-		E		F				2	J7				1	MF-1		RI	C	1,315	D Y 6	ACSR
	3						G		M2-		E		F				8	J10		3S	D	1	M3-11A		RI	PB			
	DC						G		M2-		E		F	125	IUB	2/0	2	J14					M			LP	1191	1/0 N	-INS
125	NEUTRAL													1065	1W	2/0N										IR		D	-DUP
250	TTL													1065	1W	1/0D										SL			

Zone 4, Bagumbayan

SKETCH	NATIONAL ELECTRIFICATION ADMINISTRATION QUEZON CITY	STAKING SHEET	
N — SEE SHEET NO. Start	PRIMARY COND 1-#1/0H 6/1 ACSR NEUTRAL COND 1-#1/0 6/1 ACSR RULING SPAN ______ METERS	PROJECT NAME ILECO-1 / SEP SUBSTATION Miag-ao LINE Section # Single phase primary extension tap-Sitio Zone 4, Brgy. Bagumbayan, Miag-ao SHEET NO. 1 OF ____ MAP REF. ____	Proj. No. 14044 (c) Page No. ____ (c) Checked by ____ Staked By S.C.C. Date ____ Date ____ Released By ____ Final Inv. By ____ Date ____ Date ____

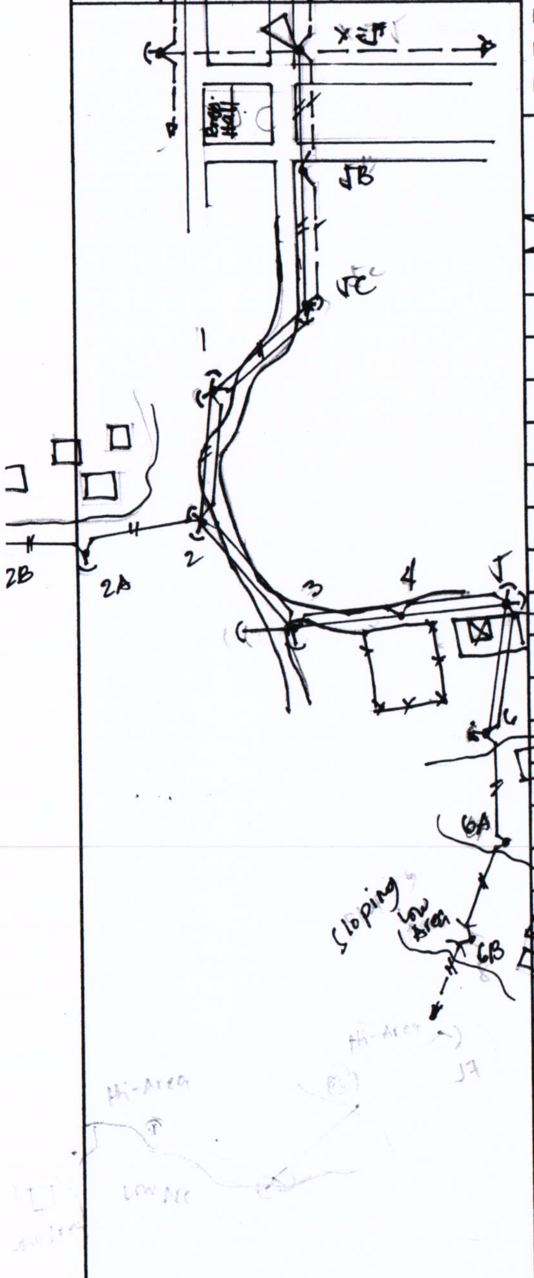


POLE NO	PRI. BACK SPAN MTRS QUAN	C	POLE Q	POLE H CODE	POLE C CODE	PRI. POLE TOP UNIT (A,B,C,) Q	PRI. POLE TOP UNIT CODE	LINE ANGLE	TRANS-FORMER "G" Q	TRANS-FORMER "G" CODE	GND. "M2" Q	GND. "M2" CODE	GUY "E" Q	GUY "E" CODE	LEAD M	ANC "F" Q	ANC "F" CODE	SECONDARY SPAN MTRS QUAN	SEC or U.B CODE	WIRE SIZE	N O. Q	"J" CODE	SERVICE DROP MTRS QUAN	N O. C	SIZE	MISC. UNITS "M" Q	MISC. UNITS "M" CODE	R/W RI- Q	R/W RI- CODE	CONS Q	CONS C	MEMBER NAME AND NO. OR REMARKS COMPUTER CODING
										G		M2		E			F					J		S			M E-1		RI-			
X ADD		1φ	1	35	SP	1	A5-1				1	-11A	1	1-2		1	2-1				1	6				1 1	5-30 3-11A					
1	65	1φ	1	35	SP	1	A1				1	-11A						65	1UB		1	5										
2	70	1φ	1	35	SP	1	A2				1	-11A	1	1-2		1	2-1	70	1UB		1 2	10 15										
3	70	1φ	1	35	SP	1	A1				1	-11A						70	1UB		1	5										
4	80	1φ	1	35	SP	1	A4				1	-11A	2	1-2		2	2-1	80	1UB		2 2	6 15										
4A			1	2	SP						1	-11A	1	1-2		1	2-1	60	2W		2	10										
4B			1	2	SP						1	-11A	1	1-2		1	2-1	55	2W		2	6										
5	80	1φ	1	35	SP	1	A5		1	10G –	1	-11A	2	1-2		2	2-1	80	1UB		1 2	10 15				1 1	5-1 5-311A					
5A			1	2	SP						1	-11A	1	1-2		1	2-1	65	2W		2	6										
5C			1	2	SP						1	-11A	1	1-2		1	2-1	70	2W		2	10										
5C			1	2	SP						1	-11A	1	1-2		1	2-1	70	2W		2	10										
5D			1	2	SP						1	-11A	1	1-2		1	2-1	70	2W		2	6										

QUAN	C	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	QUAN	CODE		Q	C	QUAN	C		Q	CODE	Q	CODE	Q	C	QUAN	CODE	
366	1φ	12	35 SP	2	A1		G	12	M2-11A	12	E 1-2	12	F 2-1		2WD		2	J5		2S	D		M 2	F-1	RI		R	373	D [illegible]	ACSR
	2		SP	1	A2		G		M2-		E		F	390	1W	1/0	9	J6					M 1	F-30	RI		C	390	D 1/0	ACSR
	3			1	A4		G		M2-		E		F				8	J10		3S	D		M 2	3-11A	RI		PB			
	DC			1	A5		G		M2-		E		F	365	1UB	2/0 N	6	J15					M				LP	701	2/0 N	-INS
				1	A5-1									390	1W	2/0 N											IR		D	-DUP
073	TTL															D											SL			

SEE SHEET NO. End

N	**SKETCH** SEE SHEET NO. Start



SEE SHEET NO. 2

NATIONAL ELECTRIFICATION ADMINISTRATION
QUEZON CITY

PRIMARY COND 1-#1/0A (treewire) 6/1 ACSR
NEUTRAL COND 1-#1/0 6/1 ACSR
RULING SPAN — METERS

STAKING SHEET

PROJECT NAME ILECO-1 / SEP2021
SUBSTATION Tigbauan S/S
LINE Section #12A-3 Single phase primary line extension tap Sitio Bugnay, Brgy. Olualgan Leon

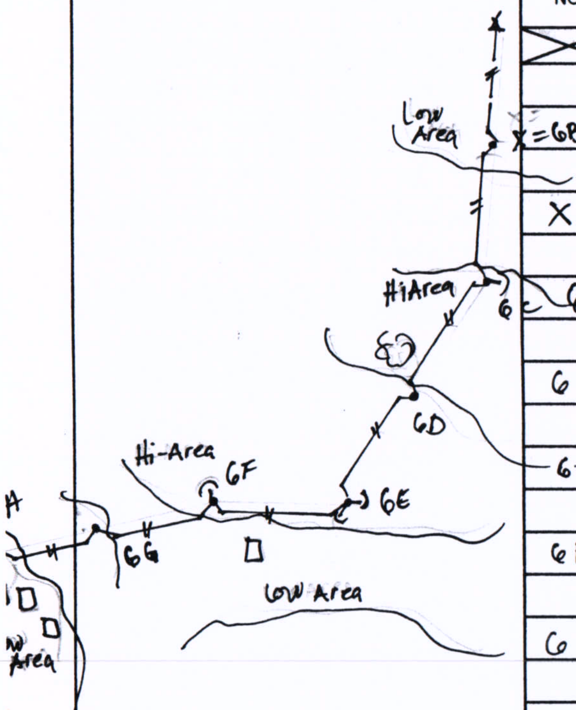
SHEET NO. 1 OF 2
MAP REF.

Proj. No. ______ (c) Page No. ______ (c)
Checked by ______ Staked By ______
Date ______ Date ______
Released By ______ Final Inv. By ______
Date ______ Date ______

POLE NO	PRI. BACK SPAN MTRS QUAN	C	POLE Q	POLE CODE (H C)	PRI. POLE TOP UNIT (A,B,C) Q	PRI. POLE TOP CODE	LINE ANGLE	TRANS-FORMER "G" Q	TRANS-FORMER CODE	GND. "M2" Q	GND. CODE	GUY "E" Q	GUY CODE	LEAD	ANC "F" Q	ANC CODE	SECONDARY SPAN MTRS QUAN	SEC or U.B CODE	WIRE SIZE	NO. Q	"J" CODE	SERVICE DROP MTRS QUAN	NO. C	SIZE	MISC. UNITS "M" Q	MISC. CODE	R/W RI- Q	R/W CODE	CONS Q	CONS C	MEMBER NAME AND NO. OR REMARKS (COMPUTER CODING)
X Equate to Pole# 5, LS# 12A-3, SS#																															
X ADD					1	A5-2			G		M2		E			F					J		S		1	M3-11A		RI-			
5B	36	1φ	Existing									(1	1-2	4	1	2-1)				(1	5)				1 1	5-14 5-2					Sec. to A1 (Bayonet)
5C	37	1φ	1	35 SP	1	A4				1	-11A	1	1-2	6	1	2-1				(2 2)	6 N										Sec. to 4 A4
1	65	1φ	1	35 SP	1	A4				1	-11A	2	1-2	6	2	2-1	65	1UB	2/0H	2	6										
2	75	1φ	1	35 SP	1	A4				1	-11A	2	1-2	6	2	2-1	75	1UB	2/0H	2 2	6 N										
2A			1	35 SP						1	-11A	1	1-2	6	1	2-1	55	2W	2/0H	2	10										
2B			1	35 SP						1	-11A	1	1-2	6	1	2-1	85	2W	2/0H	2	6										
3	75	1φ	1	35 SP	1	A4				1	-11A	2	1-2	6	2	2-1	75	1UB	2/0H	2	6										
4	65	1φ	1	35 SP	1	A1				1	-11A						65	1UB	2/0H	1	5										
5	65	1φ	1	35 SP	1	A4				1	-11A	2	1-2	6	2	2-1	65	1UB	2/0H	2	6										
5A			1	35 SP						1	-11A	1	1-2	6	1	2-1	85	2W	2/0H	2	10										
5B			1	35 SP						1	-11A	1	1-2	6	1	2-1	85	2W	2/0H	2	6										
6	85	1φ	1	35 SP	1	A5		1	610-10	1	-11A	1	1-2	6	1	2-1	85	1UB	2/0H	2	10				1 1	3-11A 5-30					
6A			1	35 SP						1	-11A	1	1-2	6	1	2-1	70	2W	3/0H	2	10										
6B			1	35 SP						1	-11A						65	2W	2/0H	2	6										

QUAN	C	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	QUAN	CODE		Q	C	QUAN	C		Q	CODE	Q	CODE	Q	C	QUAN	CODE	
503	1	13	35SP	5	A4		G	13	M2-11A	15	E1-2	15	F2-1		2WD		1	J5		2S	D	2	M3-11A		RI		R		D	ACSR
	2			1	A1		G		M2-		E		F	475	1W	1/0	14	J6				1	M5-30		RI		C		D	ACSR
	3			1	A5-2		G		M2-		E		F				8	J10		3S	D	1	M5-14		RI		PB			
	DC						G		M2-		E		F	430	1UB	2/0H	2	J5				1	M5-2				LP		N	-INS
														475	1W	2/0N											IR		D	-DUP
	TTL															D											SL			

SKETCH	NATIONAL ELECTRIFICATION ADMINISTRATION QUEZON CITY	STAKING SHEET	
SEE SHEET NO. 1	PRIMARY COND ______ 6/1 ACSR	SHEET NO. 2	Proj. No. ______ (c) Page No. ______ (c)
	NEUTRAL COND ______ 6/1 ACSR	OF 2	Checked by ______ Staked By ______
	RULING SPAN ______ METERS	PROJECT NAME ______	Date ______ Date ______
		SUBSTATION ______ MAP REF. ______	Released By ______ Final Inv. By ______
		LINE ______	Date ______ Date ______



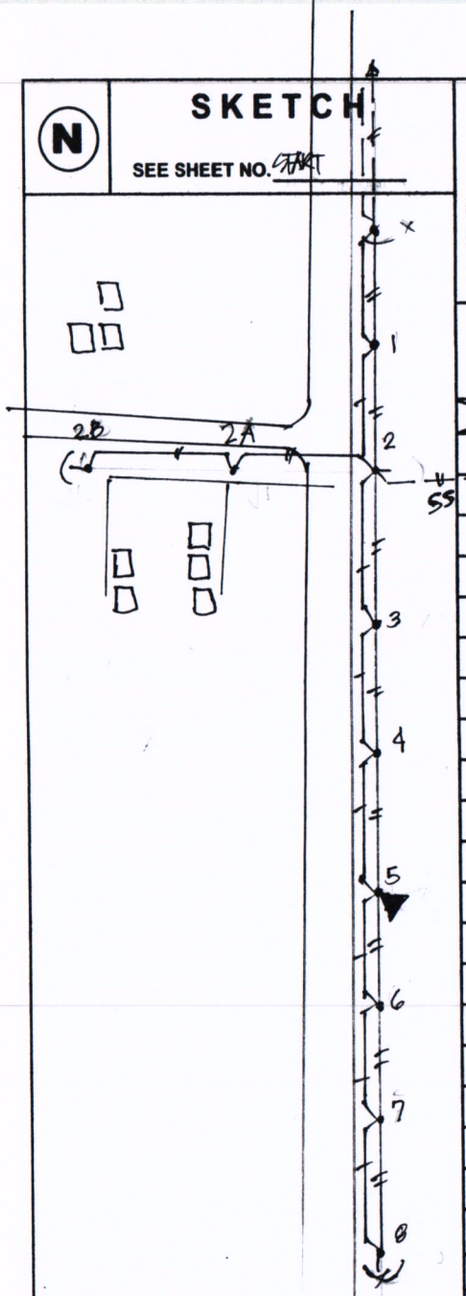
POLE NO	PRI. BACK SPAN MTRS (QUAN)	C	POLE Q	POLE H/C CODE	Q	PRI. POLE TOP UNIT (A,B,C,) CODE	LINE ANGLE	Q	TRANS-FORMER "G" CODE	GND. "M2" Q	CODE	GUY "E" Q	CODE	LEADM	ANC "F" Q	CODE	SECONDARY SPAN MTRS QUAN	SEC or U.B CODE	WIRE SIZE	NO. Q	"J" CODE	SERVICE DROP MTRS QUAN	NO. C	SIZE	MISC. UNITS "M" Q	CODE	R/W RI- Q	CODE	CONS Q	C	MEMBER NAME AND NO. OR REMARKS / COMPUTER CODING
									G		M2		E			F					J		S			M		RI-			
X Equals to Pole # 6B ~ Same Line Section ~																															
6C			1	35SP						1	-11A	1	1-2	6	1	2-1	70	2W	2/0A	2	7										
6D			1	35SP						1	-11A						65	2W	2/0A	1, 1	5, 8										
6E			1	35SP						1	-11A	2	1-2	6	2	2-1	65	2W	2/0A	4	6										
6F			1	35SP						1	-11A	1	1-2	6	1	2-1	75	2W	2/0A	2	10										
6G			1	35SP						1	-11A						70	2W	2/0A	1, 1	5, 8										
6H			1	35SP						1	-11A	1	1-2	6	1	2-1	75	2W	2/0A	2	6										

QUAN	C	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	QUAN	CODE		Q	C	QUAN	C		Q	CODE	Q	CODE	Q	C	QUAN	CODE	
	1	6	35SP				G	6	M2-11A	5	E1-2	5	F2-1		2WD	1/0	2	J5		2S	D		M		RI		R		D	ACSR
	2						G		M2-		E		F	420	1W		6	J6					M		RI		C		D	ACSR
	3						G		M2-		E		F				2	J7		3S	D		M		RI		PB			
	DC						G		M2-		E		F		IUB		2	J8					M				LP		N	-INS
														420	1W	2/0N	2	10									IR		D	-DUP
	TTL															D											SL			

SEE SHEET NO. End.

SKETCH

SEE SHEET NO. START



SEE SHEET NO. 2

NATIONAL ELECTRIFICATION ADMINISTRATION
QUEZON CITY

PRIMARY COND 1-#1/0 6/1 ACSR
NEUTRAL COND 1 #1/0 6/1 ACSR
RULING SPAN _____ METERS

STAKING SHEET

SHEET NO. 1
OF 2

PROJECT NAME ILECO-1
SUBSTATION OTON ILOILO
MAP REF. _____
LINE SECTION Nº 1Ø PRIMARY LINE EXT'N TAP
Sitio Zone 1, Abilay Sur, Oton

Proj. No. _____ (c) Page No. _____ (c)
Checked by _____ Staked By _____
Date _____ Date _____
Released By _____ Final Inv. By _____
Date _____ Date _____

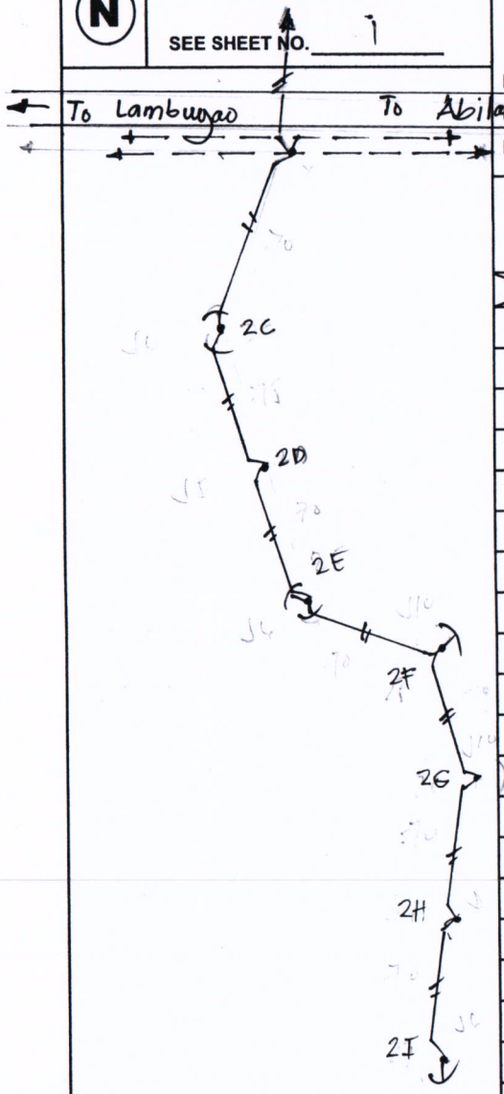
POLE NO	PRI. BACK SPAN MTRS	POLE			PRI. POLE TOP UNIT (A,B,C,)		LINE ANGLE	TRANSFORMER "G"		GND. "M2"		GUY "E"		LEAD M	ANC "F"		SECONDARY					SERVICE					R / W RI-		CONS		MEMBER NAME AND NO. OR REMARKS
			H	C													SPAN MTRS	SEC. or U.B	WIRE SIZE	NO.	"J"	DROP MTRS	NO.	SIZE	MISC. UNITS "M"						
	QUAN	C	Q	CODE	Q	CODE		Q	CODE	Q	CODE	Q	CODE		Q	CODE	QUAN	CODE		Q	CODE	QUAN	C		Q	CODE	Q	CODE	Q	C	COMPUTER CODING
X	EQUALS TO POLE #						SS #		PAGE #			LS Nº																		
									G		M2		E			F					J		S		M		RI-			
X	ADD					A5-4														2	15				1 F1 1 5-11A					
1	70	1Ø	1	35	SP	1 A1				1	-11A						70	1UB	3/0N	1	5									
2	70	1Ø	1	35	SP	1 A1				1	-11A						70	1UB	3/0N	1 2	5 5									
2A	—		1	35	SP	—				1	-11A						60	2W	3/0N	1 1	B B									
2B	—		1	35	SP	—				1	-11A	1	1-2	6	1	2-1	60	2W	3/0N	2	6									
3	75	1Ø	1	35	SP	1 A1				1	-11A						75	1UB	3/0N	1	5									
4	75	1Ø	1	35	SP	1 A1				1	-11A						75	1UB	3/0N	1	5									
																									1 3-11A					
5	75	1Ø	1	35	SP	1 A1		1	G9-10	1	-11A						75	1UB	3/0N	1	5				1 5-1 1 5-3B				(1) 311A CUT OUT (1) 5-30	
6	75	1Ø	1	35	SP	1 A1				1	-11A						75	1UB	2/0N	1	5									
7	75	1Ø	1	35	SP	1 A1				1	-11A						75	1UB	2/0N	1	5									
8	75	1Ø	1	35	SP	1 A5				1	-11A	1	1-2	6	1	2-1	75	1UB	2/0N	2	6									

QUAN	C	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	QUAN	CODE		Q	C	QUAN	C		Q	CODE	Q	CODE	Q	C	QUAN	CODE	
J90	1Ø	10	35	SP	7 A1	1	G 105-10	10	M2-11A	2	E1-2	2	F2-1	120	2WB	2/0H	8	J5		2S	D	2	M5-1		RI	R		D	ACSR
	2				1 A5		G		M2-		E		F				6	J6				1	M5-3U		RI	C		D	ACSR
	3				1 A5-4		G		M2-		E		F				1	J8		3S	D	2	M5-311A		RI	PB			
	DC						G		M2-		E		F	J90	1UB	2/0 N	4	J15					M			LP		N	-INS
																N										IR		D	-DUP
1,180	TTL															D										SL			

SKETCH

N

SEE SHEET NO. 1



SEE SHEET NO. End.

NATIONAL ELECTRIFICATION ADMINISTRATION
QUEZON CITY

PRIMARY COND 1 - #1/0 6/1 ACSR
NEUTRAL COND 1 - #1/0 6/1 ACSR
RULING SPAN _____ METERS

STAKING SHEET

SHEET NO. 2
OF 2

PROJECT NAME LECO - I
SUBSTATION OTON, ILOILO
MAP REF. _____
LINE SECTION NO 1Φ PRIMARY LINE EXT'N TAP
Sitio Zone 1, Abilay Sur, Oton

Proj. No. _____ (c) Page No. _____ (c)
Checked by _____ Staked By _____
Date _____ Date _____
Released By _____ Final Inv. By _____
Date _____ Date _____

POLE NO	PRI. BACK SPAN MTRS	POLE			PRI. POLE TOP UNIT (A,B,C,)		LINE ANGLE	TRANS-FORMER "G"		GND. "M2"		GUY "E"		LEAD M	ANC "F"		SECONDARY					SERVICE					R / W RI-		CONS		MEMBER NAME AND NO. OR REMARKS
		H	C														SPAN MTRS	SEC or U.B	WIRE SIZE	NO.	"J"	DROP MTRS	NO.	SIZE	MISC. UNITS "M"						
	QUAN	C	Q	CODE	Q	CODE		Q	CODE	Q	CODE	Q	CODE		Q	CODE	QUAN	CODE		Q	CODE	QUAN	C		Q	CODE	Q	CODE	Q	C	COMPUTER CODING
								G		M2		E			F						J		S			M		RI-			
X	Equals to																													
X	XLO																													
2C		1	35	SP						1	11A	2	1-2	6/6	2	2-1	70	2W	2/0 N	2 2	6 15									
2D		1	35	SP						1	11A						75	2W	2/0 N	1 1	5 8									
2E		1	35	SP						1	11A	2	1-2	6/6	2	2-1	70	2W	2/0 N	2 2	6 15									
2F		1	35	SP						1	11A	1	1-2	6	1	2-1	70	2W	2/0 N	2	10									
2G		1	35	SP						1	11A	1	1-2	6	1	2-1	70	2W	2/0 N	2	10									
2H		1	35	SP						1	11A						70	2S	2/0 N	1 1	5 8									
2I		1	35	SP						1	11A	1	1-2	6	1	2-1	70	2W	2/0 N	2	6									

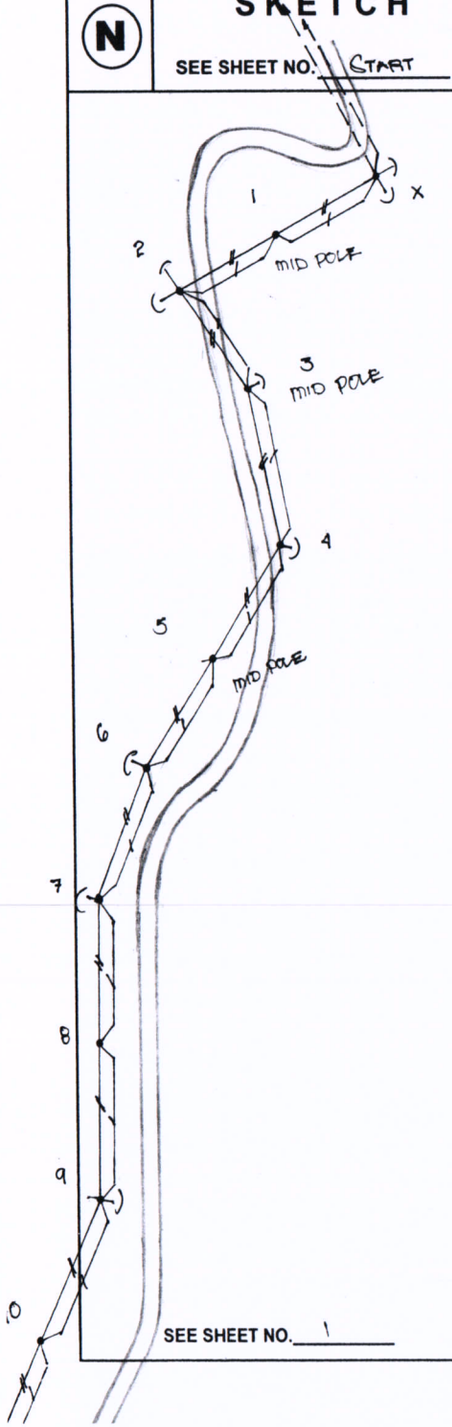
QUAN	C	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	QUAN	CODE		Q	C	QUAN	C		Q	CODE	Q	CODE	Q	C	QUAN	CODE	
	1	7	35 SP				G	7	M2-11A	7	E 1-2	7	F2-1	495	2WD		2	J5		2S	D		M		RI	R	495	D 1/0	ACSR
	2						G		M2-		E		F				6	J6					M		RI	C		D	ACSR
	3						G		M2-		E		F				2	J8		3S	D		M		RI	PB			
	DC						G		M2-		E		F		IUB		4	J10					M			LP	495	2/0 N	-INS
																N	4	J15								IR		D	-DUP
	TTL															D										SL			

LS 2

SKETCH

N

SEE SHEET NO.: START



SEE SHEET NO. 1

NATIONAL ELECTRIFICATION ADMINISTRATION
QUEZON CITY

PRIMARY COND _____ 6/1 ACSR
NEUTRAL COND _____ 6/1 ACSR
RULING SPAN _____ METERS

STAKING SHEET

SHEET NO. 1
OF 2

PROJECT NAME LECO I
SUBSTATION _____ MAP REF. _____
LINE SECTION # 10 PRIMARY LINE EXTENSION TAP SITIO KANING, BRGY SINURSURAN, MAGSIN. SEP 2021

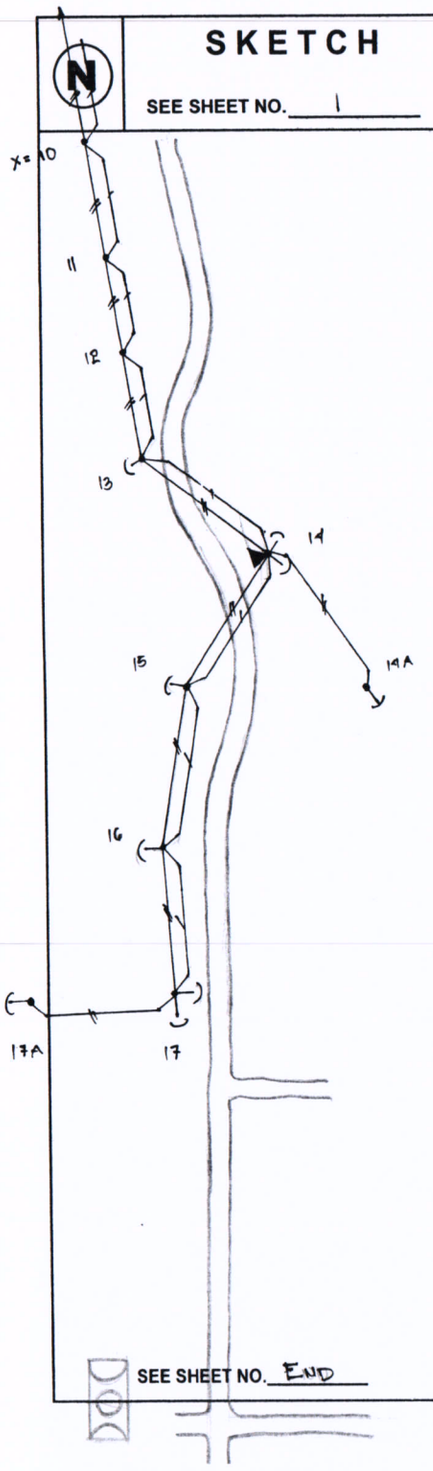
Proj. No. 1404A (c) Page No. _____ (c)
Checked by _____ Staked By JTG
Date _____ Date _____
Released By _____ Final Inv. By _____
Date _____ Date _____

POLE NO	PRI. BACK SPAN MTRS	POLE			PRI. POLE TOP UNIT (A,B,C,)		LINE ANGLE	TRANS-FORMER "G"		GND. "M2"		GUY "E"		LEAD M	ANC "F"		SECONDARY					SERVICE					R / W RI-		CONS		MEMBER NAME AND NO. OR REMARKS
			H	C													SPAN MTRS	SEC or U.B	WIRE SIZE	NO.	"J"	DROP MTRS	NO.	SIZE	MISC. UNITS "M"						
	QUAN	C	Q	CODE	Q	CODE		Q	CODE	Q	CODE	Q	CODE		Q	CODE	QUAN	CODE		Q	CODE	QUAN	C		Q	CODE	Q	CODE	Q	C	COMPUTER CODING
X ADD					1	A5-			G		M2		E			F				1	J6		S		1	M5-1 M3-11A		RI-			
1	65	1Ø	1	35	SP	1	A1			1	-11A						65	1WB	P/O N	1	5									
2	70	1Ø	1	35	SP	1	A4			1	-11A	2	1-2		2	2-1	70	1WB	P/O N	2	6									
3	65	1Ø	1	35	SP	1	A2			1	-11A	1	1-2		1	2-1	65	1WB	P/O N	1	10									
4	70	1Ø	1	35	SP	1	A2			1	-11A	1	1-2		1	2-1	70	1WB	P/O N	1	10									
5	70	1Ø	1	35	SP	1	A1			1	-11A						70	1WB	P/O N	1	5									
6	70	1Ø	1	35	SP	1	A6			1	-11A	1	1-2		1	2-1	70	1WB	P/O N	2	6									
7	75	1Ø	1	35	SP	1	A2			1	-11A	1	1-2		1	2-1	70	1WB	P/O N	1	10									
8	70	1Ø	1	35	SP	1	A1			1	-11A						70	1WB	P/O N	1	5									
9	70	1Ø	1	35	SP	1	A2			1	-11A	1	1-2		1	2-1	70	1WB	P/O N	1	10									
10	75	1Ø	1	35	SP	1	A1			1	-11A						75	1WB	P/O N	1	5									

QUAN	C	Q	CODE	Q	CODE		Q	CODE	Q	CODE	Q	CODE		Q	CODE	QUAN	CODE		Q	C	QUAN	C		Q	CODE	Q	CODE	Q	C	QUAN	CODE	
700	1Ø	10	35	SP	4	A1		G	10	M2-11A	7	E 1-2	7	F2-1		2WD		4	J5		2S	D	1	M5-1		RI	R		D	ACSR
	2				4	A2		G		M2-		E		F				5	J6				1	M3-11A		RI	C	770	D 1/0	ACSR
	3				1	A4		G		M2-		E		F				4	J10		3S	D		M		RI	PB	770	TREE WIRE	
	DC				1	A6		G		M2-		E		F	700	IUB	P/O N		J					M			LP	770	2/0 N	-INS
					1	A5-											N										IR		D	-DUP
700	TTL																D										SL			

SKETCH

SEE SHEET NO. 1



NATIONAL ELECTRIFICATION ADMINISTRATION
QUEZON CITY

PRIMARY COND _____ 6/1 ACSR
NEUTRAL COND _____ 6/1 ACSR
RULING SPAN _____ METERS

STAKING SHEET

SHEET NO. 2
PROJECT NAME LECO 1 OF 2
SUBSTATION _____ MAP REF. _____
LINE SECTION #9, 10 PRIMARY LINE EXTENSION TAP SITIO KANING; BRGY. SINUBEGBAN, MAAGIN. SEP 2021

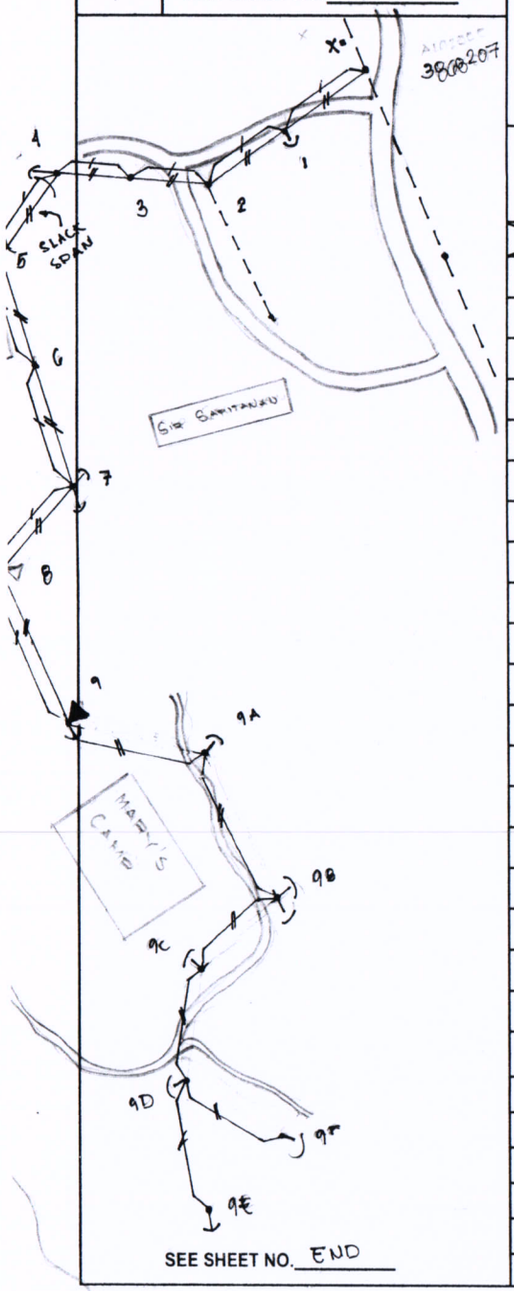
Proj. No. 4044 (c) Page No. _____ (c)
Checked by _____ Staked By JG
Date _____ Date _____
Released By _____ Final Inv. By _____
Date _____ Date _____

POLE NO	PRI. BACK SPAN MTRS	POLE H	POLE C	PRI. POLE TOP UNIT (A,B,C,)	LINE ANGLE	TRANS-FORMER "G"	GND. "M2"	GUY "E"	LEAD	ANC "F"	SECONDARY SPAN MTRS	SECONDARY SEC or U.B	SECONDARY WIRE SIZE	SECONDARY NO.	SECONDARY "J"	SERVICE DROP MTRS	SERVICE NO.	SERVICE SIZE	SERVICE MISC. UNITS "M"	R / W RI-	CONS	MEMBER NAME AND NO. OR REMARKS
	QUAN C	Q CODE		Q CODE		Q CODE	Q CODE	Q CODE		Q CODE	QUAN	CODE		Q	CODE	QUAN	C		Q CODE	Q CODE	Q C	COMPUTER CODING
X EQUAL TO POLE # 10				7		G	M2	E		F					J		S		M	RI-		
11	70 10	1 35	SP	1 A1			1 -11A				70	1UB		1	5							
12	65 10	1 35	SP	1 A1			1 -11A				65	1UB		1	5							
13	65 10	1 35	SP	1 A9			1 -11A	1 1-2		1 2-1	65	1UB		1	7				1 5-30			
14	70 10	1 35	SP	1 A4		1 10-10	1 -11A	2 1-2		2 2-1	70	1UB		4	6				1 5-1 1 3-11A			
14A		1 35	SP				1 -11A				70	2y/N		2	6							
15	65 10	1 35	SP	1 A8			1 -11A	1 1-2		1 2-1	65	1UB		1	7							
16	70 10	1 35	SP	1 A2			1 -11A	1 1-2		1 2-1	70	1UB		1	10							
17	70 10	1 35	SP	1 A5			1 -11A	1 1-2		1 2-1	70	1UB		2	6							
17A		1 35	SP				1 -11A				70	2y/N										

QUAN	C	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	QUAN	CODE		Q	C	QUAN	C		Q	CODE	Q	CODE	Q	C	QUAN	CODE	
475	10	9	35 SP	2	A1	1	G	11	M2-11A	6	E 1-2	6	F 2-1		2WD		2	J6		2S	D	1	M5-1		RI	R		D	ACSR
	2			1	A2		G		M2-		E		F	140	1W	1/0	8	J6				1	M5-30		RI	C	680	D 1/0	ACSR
	3			2	A3		G		M2-		E		F				2	J7		3S	D	1	M5-11A		RI	PB	525	TREE WIRE	
	DC			1	A4		G		M2-		E		F	475	IUB	2/0 N	1	J10					M			LP	680	2/0 N	-INS
				1	A5									140	1W	2/0 N										IR		D	-DUP
475	TTL															D										SL			

SKETCH

SEE SHEET NO. START



SEE SHEET NO. END

NATIONAL ELECTRIFICATION ADMINISTRATION
QUEZON CITY

PRIMARY COND _____ 6/1 ACSR
NEUTRAL COND _____ 6/1 ACSR
RULING SPAN _____ METERS

STAKING SHEET

SHEET NO. 1
OF 1

PROJECT NAME LECO I
SUBSTATION MAC AC SUBSTATION
MAP REF.
LINE SECTION #, 10 PRIMARY LINE EXTENSION TAP SITIO KILING, CATAAN
SAN JOAQUIN. SEP 2021

Proj. No. 14044 (c) Page No. _____ (c)
Checked by _____ Staked By JHG
Date _____ Date _____
Released By _____ Final Inv. By _____
Date _____ Date _____

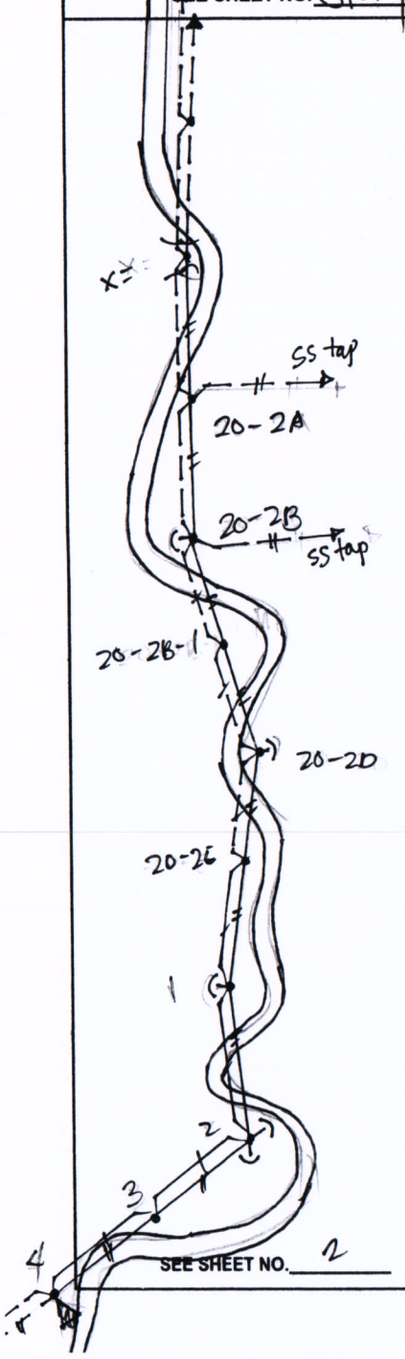
POLE NO	PRI. BACK SPAN MTRS	POLE			PRI. POLE TOP UNIT (A,B,C,)		LINE ANGLE	TRANS-FORMER "G"		GND. "M2"		GUY "E"		LEAD M	ANC "F"		SECONDARY					SERVICE					R / W RI-		CONS		MEMBER NAME AND NO. OR REMARKS
			H	C													SPAN MTRS	SEC. or U.B	WIRE SIZE	NO.	"J"	DROP MTRS	NO.	SIZE	MISC. UNITS "M"						
	QUAN	C	Q	CODE	Q	CODE		Q	CODE	Q	CODE	Q	CODE		Q	CODE	QUAN	CODE		Q	CODE	QUAN	C		Q	CODE	Q	CODE	Q	C	COMPUTER CODING
X EQUALS	TO	POLE #						SAME		SAME					PAGE #															
X ADD					1	A5-2			G		M2		E			F					J		S		1	M2-11A		RI-			
1	65	1Φ	1	35	SP	1	A2			1	2-11A	1	1-2		1	2-1	65	1WB	2/0 H	1	10										
2	60	1Φ	1	35	SP	1	A3			1	2-11A	1	1-2		1	2-1	60	1WB	2/0 H	1	7										
3	40	1Φ	1	35	SP	1	A6			1	2-11A	1	1-2		1	2-1	40	1WB	2/0 H	2	6										
4	35	1Φ	1	35	SP	1	A4			1	2-11A	1	1-2		1	2-1	35	1WB	2/0 H	2	6										
5	40	1Φ	1	35	SP	1	A4			1	2-11A	1	1-2		1	2-1	40	1WB	2/0 N	2	6										
6	65	1Φ	1	35	SP	1	A1			1	2-11A						65	1WB	2/0 N	1	5										
7	60	1Φ	1	35	SP	1	A4			1	2-11A	2	1-2		2	2-1	60	1WB	2/0 N	2	6										
8	65	1Φ	1	35	SP	1	A3			1	2-11A	1	1-2		1	2-1	65	1WB	2/0 N	1	7										
9	70	1Φ	1	35	SP	1	A5		1	105-10	1	2-11A	1	1-2		1	2-1	70	1WB	2/0 N	1	6				1	6-1					
																										1	6-30				
																										1	2-11A				
9A			1	25	SP					1	2-11A						65	2WN	D/O 2/0 N	2	7										
9B			1	25	SP					1	2-11A						60	2WN	D/O 2/0 N	4	6										
9C			1	25	SP					1	2-11A						60	2WN	D/O 2/0 N	2	10										
9D			1	25	SP					1	2-11A						70	2WN	D/O 2/0 N	2	10										
9E			1	25	SP					1	2-11A						70	2WN	D/O 2/0 N	2	6										
9F			1	25	SP					1	2-11A						75	2WN	D/O 2/0 N	2	6										

QUAN	C	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	QUAN	CODE		Q	C	QUAN	C		Q	CODE	Q	CODE	Q	C	QUAN	CODE	
500	1Φ	N	35	SP	1	A1	1	G105-10	15	M2-11A	9	E1-2	9	F2-1		2WD		1	J5		2S	D		M		RI	R		D	ACSR
	2			SP	1	A2		G		M2-		E		F				17	J6				1	M5-30		RI	C	770	D 1/0	ACSR
	3				2	A3		G		M2-		E		F	400	1W	1/0	4	J7		3S	D	2	M3-1M		RI	PB	550	TREE WIRE	
	DC				3	A4		G		M2-		E		F	500	IUB	2/0 N	5	J10				2	M5-1			LP	770	2/0 N	-INS
					1	A5									400	1W	2/0 N										IR		D	-DUP
506	TTL																D										SL			

1 A5-2

SKETCH

SEE SHEET NO. Start



NATIONAL ELECTRIFICATION ADMINISTRATION
QUEZON CITY

PRIMARY COND 1-#1/0H (treewire) 6/1 ACSR
NEUTRAL COND 1-#1/0 6/1 ACSR
RULING SPAN — METERS

STAKING SHEET

PROJECT NAME IVECO-1/SEP2021
SUBSTATION Guimbal CS.
LINE Section 7 16D-2-1 Improvement of tapping pole and 1φ primary line extension Tap Sitio Nampungan, Igtuble, Tubungan

SHEET NO. 1
OF 2
MAP REF.

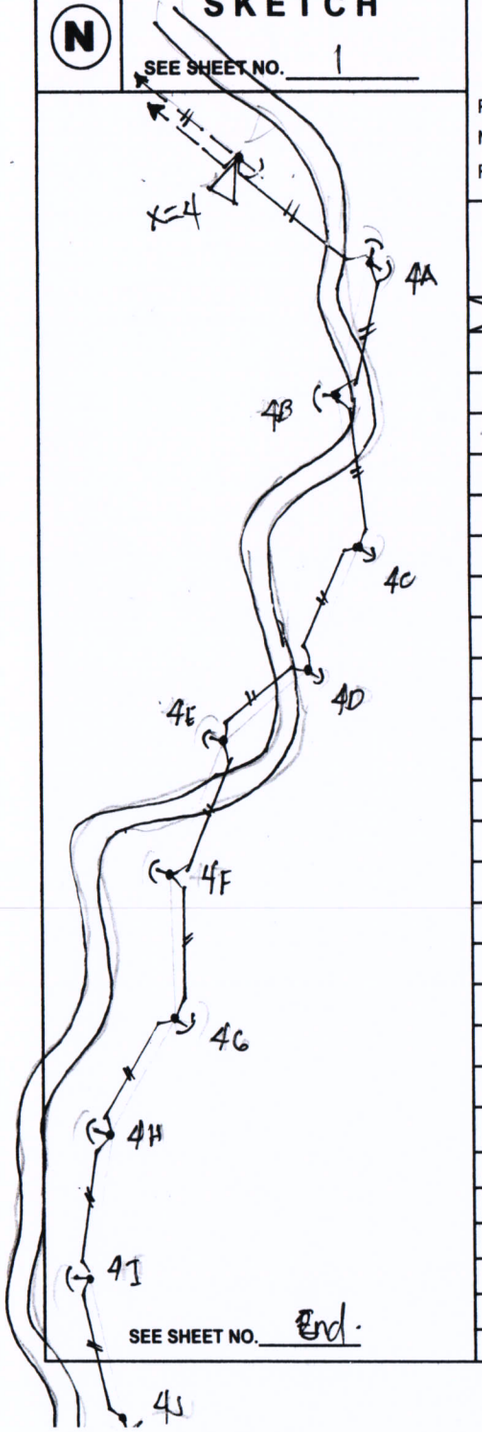
Proj. No. _____ (c) Page No. _____ (c)
Checked by _____ Staked By _____
Date _____ Date _____
Released By _____ Final Inv. By _____
Date _____ Date _____

POLE NO	PRI. BACK SPAN MTRS	POLE H	POLE C	PRI. POLE TOP UNIT (A,B,C,)	LINE ANGLE	TRANS-FORMER "G"	GND. "M2"	GUY "E"	LEAD M	ANC "F"	SECONDARY SPAN MTRS	SEC or U.B	WIRE SIZE	NO.	"J"	SERVICE DROP MTRS	NO.	SIZE	MISC. UNITS "M"	R/W RI-	CONS	MEMBER NAME AND NO. OR REMARKS
	QUAN	C	Q CODE	Q CODE		Q CODE	Q CODE	Q CODE		Q CODE	QUAN	CODE		Q	CODE	QUAN	C		Q CODE	Q CODE	Q C	COMPUTER CODING
																						JEP 2021
						G	M2	E		F					J		S		M	RI-		
X	ADD			1 A-4															1 3-11A			
20-2A	95	1φ	1 3 SP	1 A1							(95	1UB	1/0H	1	J)							
20-2B	90	1φ	1 3 SP	1 A2							(90	1UB	1/0H	(1	10)							
20-2B-1	50	1φ	1 3 SP	1 A1							(50	1UB	1/0H	1	J							Mid-pole
20-2D	65	1φ	1 3 SP	1 A3							(65	1UB	1/0H	1	7)							
20-2E	95	1φ	1 3 SP	1 A1							(95	1UB	1/0H	1	6							
1	80	1φ	1 3 SP	1 A2			1-11A	1-2	6	2-1	80	1UB	2/0H	1	10							
2	80	1φ	1 3 SP	1 A4			1-11A	2 1-2	6	2 2-1	80	1UB	2/0H	2	6							
3	70	1φ	1 3 SP	1 A1			1-11A				70	1UB	2/0H	1	J							
4	80	1φ	1 3 SP	1 A5		1 6D-10	1-11A	1 1-2	6	2-1	80	1UB	2/0H	1 2	6 J				1 3-11A 1 1/0-3Φ			

QUAN	C	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	QUAN	CODE		Q	C	QUAN	C		Q	CODE	Q	CODE	Q	C	QUAN	CODE	
3Φ	1	9	3 SP	4	A1		G	4	M2-11A	4	E 1-2	4	F2-1		2WD		2	J		2S	D	2	M3-1/0	RI	R			D	ACSR
	2			2	A2		G		M2-		E		F				3	6				1	M1-3Φ	RI	C			D	ACSR
	3			1	A3		G		M2-		E		F				1	J10		3S	D		M		RI	PB				
	DC			1	A4		G		M2-		E		F	3/0	IUB	2/0H	2	J5					M			LP			N	-INS
				1	A5											N										IR			D	-DUP
	TTL			1	A1-4											D										SL				

SKETCH

SEE SHEET NO. 1



SEE SHEET NO. End.

NATIONAL ELECTRIFICATION ADMINISTRATION
QUEZON CITY

PRIMARY COND — 6/1 ACSR
NEUTRAL COND — 6/1 ACSR
RULING SPAN — METERS

STAKING SHEET

SHEET NO. 2
OF 2

PROJECT NAME
SUBSTATION
LINE
MAP REF.

Proj. No. (c) Page No. (c)
Checked by Staked By
Date Date
Released By Final Inv. By
Date Date

POLE NO	PRI. BACK SPAN MTRS	POLE		PRI. POLE TOP UNIT (A,B,C,)	LINE ANGLE	TRANS-FORMER "G"	GND. "M2"	GUY "E"	LEAD M	ANC "F"	SECONDARY					SERVICE					R / W RI-		CONS		MEMBER NAME AND NO. OR REMARKS
		H	C								SPAN MTRS	SEC or U.B	WIRE SIZE	NO.	"J"	DROP MTRS	NO.	SIZE	MISC. UNITS "M"						
	QUAN C	Q CODE		Q CODE		Q CODE	Q CODE	Q CODE		Q CODE	QUAN	CODE		Q	CODE	QUAN	C		Q CODE		Q CODE	Q C		COMPUTER CODING
X	Equals to Pole #4																							
						G	M2	E		F					J		S		M		RI-			
4A		1	3Ø SP				1-11A	2 1-2	6	2 2-1	80	2WH	2/0H	4	6									
4B		1	3Ø SP				1-11A	1 1-2	6	1 2-1	70	2WH	2/0H	2	10									2WH- 1-#1/0D 1-#2/0N
4C		1	3Ø SP				1-11A	1 1-2	6	1 2-1	70	2WH	2/0H	2	7									
4D		1	3Ø SP				1-11A	1 1-2	6	1 2-1	70	2WH	2/0H	2	10									
4E		1	3Ø SP				1-11A	2 1-2	6	1 2-1	100	2WH	2/0H	2	6									
4F		1	3Ø SP				1-11A	1 1-2	6	1 2-1	80	2WH	2/0H	2	10									
4G		1	3Ø SP				1-11A	1 1-2	6	1 2-1	70	2WH	2/0H	2	10									
4H		1	3Ø SP				1-11A	1 1-2	6	1 2-1	70	2WH	2/0H	2	10									
4I		1	3Ø SP				1-11A	1 1-2	6	1 2-1	80	2WH	2/0H	2	10									
4J		1	3Ø SP				1-11A	1 1-2	6	1 2-1	80	2WH	2/0H	2	6									

QUAN	C	Q	CODE	Q	CODE	Q	CODE	Q	CODE	Q	CODE	QUAN	CODE		Q	C	QUAN	C		Q	CODE	Q	CODE	Q	C	QUAN	CODE	
	1	10	3Ø SP				G	10	M2-1A	10	E 1-2	10	F 2-1		2WD		8	J 6		2S	D		M		RI	R		D	ACSR
	2						G		M2-		E		F	770	1W	1/0	2	J 7					M		RI	C		D	ACSR
	3						G		M2-		E		F				12	J 10		3S	D		M		RI	PB			
	DC						G		M2-		E		F	770	1W	2/0H	2	J 15					M			LP		N	-INS
																N									IR		D	-DUP
	TTL															D									SL			