



**CITY OF  
GALLUP**

City of Gallup  
Purchasing Division  
P.O. Box 1270  
Gallup, New Mexico 87305-1270  
Office: (505) 863-1232  
Fax: (505) 722-5133  
*gallupnm.gov/purchasing*

**INVITATION TO BID  
FORMAL BID NO NO. 1615**

**TRANSFORMERS, ANNUAL CONTRACT**

**ISSUE DATE: June 18, 2016**  
**BID OPENING DATE: July 12, 2016**  
**BID OPENING TIME: 2:00 p.m. Local Time**

**Vendor:**

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

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Notes:**

**F.O.B. Point : Destination**

**Payment Terms: Net 30, unless otherwise stated**

**Quantities may be increased or decreased within reasonable amounts**

**ADVERTISEMENT FOR BIDS**

CITY OF GALLUP, NEW MEXICO  
FORMAL BID NO. 1615

Public notice is hereby given that the City of Gallup, New Mexico, desires to purchase the following:

**Transformers, Annual Contract**

As more particularly set out in the Bid documents , copies of which may be obtained from the City of Gallup Purchasing Division, 110 W. Aztec Ave., Gallup, New Mexico 87301; or contact Frances Rodriguez, Purchasing Director at (505) 863-1334. Copies are available for viewing or can be downloaded from: [www.gallupnm.gov/bids](http://www.gallupnm.gov/bids).

Sealed bids for such will be received at the Office of the Purchasing Department until **2:00 P.M. (LOCAL TIME)** on **Tuesday, July 12, 2016** when bids will be opened and read aloud in the City Hall Purchasing Conference Room. Envelopes are to be sealed and plainly marked with the Formal Bid Number. **NO FAXED OR ELECTRONICALLY TRANSMITTED BIDS** will be accepted, and proposals submitted after the specified date and time will not be considered and will be returned unopened.

Dated this June 18<sup>th</sup> day, 2016

By: /S/ Jackie McKinney, Mayor

Classified Legal Column:

Gallup Independent Publishing Date: Saturday, June 18, 2016

Albuquerque Journal Publishing Date: Saturday, June 18, 2016

**ACKNOWLEDGMENT OF RECEIPT OF BID**

**Formal Bid No. 1615**

**ELECTRICAL MATERIALS, Annual Contract**

In acknowledgment of receipt of this BID the undersigned agrees that they have received a complete copy of this Bid consisting of fifty-seven (57) pages.

The acknowledgment of receipt should be signed and returned to the Purchasing Office as soon as possible but no later than 5:00 P.M. local time on April 18, 2016. **Only potential bidders who elect to return this form completed with the indicated intention of submitting a bid will receive copies of all bidder written questions and the City's written responses to those questions as well as Bid Amendments, if any are issued.**

FIRM DOES DOES NOT (Circle one) intend to respond to this Formal Bid.

FIRM: \_\_\_\_\_

REPRESENTED BY: \_\_\_\_\_

TITLE: \_\_\_\_\_ PHONE NO.: \_\_\_\_\_

FAX NO.: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP CODE : \_\_\_\_\_

SIGNATURE: \_\_\_\_\_

DATE: \_\_\_\_\_

EMAIL: \_\_\_\_\_

The above name and address will be used for all correspondence related to the Formal Bid.

Return this form by fax or email to:

City of Gallup Purchasing Department  
Frances Rodriguez  
P.O. Box 1270  
Gallup, New Mexico 87305  
(505) 863-1334  
(505) 722-5133 Fax  
Email: [frdriguez@gallupnm.gov](mailto:frdriguez@gallupnm.gov)

**Please return this form no later than June 30, 2016**

## GENERAL CONDITIONS

### FORMAL BID NO. 1615

**SEALED BIDS:** All bids must be submitted in a sealed envelope and shall not be opened and considered if they are not received at the City of Gallup Purchasing Department, Municipal Building, 110 West Aztec, Gallup, New Mexico 87301 (mailing address: City of Gallup Purchasing Department; Municipal Building; P.O. Box 1270; Gallup, New Mexico 87305) prior to the time specified for the Bid Opening. All sealed bids must be submitted on the Bid Document Originals or Forms, or reasonable facsimile, furnished by the City of Gallup. All bids must be signed by a responsible and authorized person for the bidding firm. Each bidder must also fill-in areas for Delivery Date and Payment Terms; failure to do so may result in disqualification of their respective bid. NOTE: **Fax or electronically transmitted Bids are NOT accepted on the City of Gallup Formal Bids.** Bids submitted after the Bid Opening date and time will not be considered and will be returned unopened. Bids will be opened in the Purchasing Department Conference Room.

#### Physical Address

City of Gallup Municipal Building  
Purchasing Department  
110 West Aztec  
Gallup, NM 87301

#### Mailing Address

City of Gallup Municipal Building  
Purchasing Department  
P.O. Box 1270  
Gallup, NM 87305

**BID OPENING DATE AND TIME:** Bids shall be received until **July 12, 2016 at 2:00 P.M.** local time.

**MAILING:** Bidder to utilize the City's self-addressed label on their return mailing envelope or package. If sent by overnight method (Federal-Express, UPS Next Day Air etc.) please **note bid number on exterior of envelope.** Failure to do so will not constitute a liability on the City if the bid is misplaced or lost.

**Please return two sets of the Invitation to Bid packages to the Purchasing Department, the original and a photo copy.**

**SPECIFICATIONS:** Specifications, as included in this Bid, are intended to indicate the requirements of the City of Gallup and give an accurate description of minimum standards acceptable. All items equal or equivalent to these requirements and standards will be considered, except where otherwise noted.

**MINOR DEVIATIONS OR IRREGULARITIES:** The City reserves the right to accept **minor** modifications to or deviations from any specification, except where otherwise noted, as long as the proposed material meets the intent of the specifications. The City will be the sole entity to determine the acceptance or non-acceptance of any such modifications or deviations.

**NEW EQUIPMENT:** Unless otherwise stated, all goods or materials must be the new and latest in production.

**WARRANTY:** Offeror agrees that all Manufacturer Warranties shall insure to the benefit of the City and all rights and remedies provided in such warranties shall extend to the City.

**MODIFICATIONS:** The City reserves the right to accept **minor** modifications to or deviations from any specification, except where otherwise noted, as long as the proposed material meets the intent of the specifications. The City will be the sole entity to determine the acceptance or non-acceptance of any modifications or deviations.

**BRAND NAMES:** Where a product or brand name is indicated in the specifications, it shall mean "minimum acceptable level or minimum quality required" by the City unless the specifications state that no substitutions or equivalents are allowed. If the Bidder is offering, as an equal or equivalent, an item other than the one specified then the manufacturer's name and model number of that item must be specified in the offer and sufficient specification and descriptive data and literature provided to permit a thorough evaluation. Failure to provide appropriate information may result in disqualification of the offer.

Bidders must state the brand name and model being bid and provide proof that the merchandise bid is **equal or equivalent to** the specifications. Unless the bidder clearly indicates in his bid that he is offering an "equal" product, his bid shall be considered as offering a brand name product referenced in the Bid Schedule.

**SUBMITTALS:** Each Bidder is requested to submit printed literature and specification sheets that fully describe the material they propose to furnish the City when the material offered is different from that specified on the Bid. Failure to submit sufficient data/submittals/literature to allow a thorough evaluation of your Bid may be cause for rejection of your Bid. The acceptance or rejection of equals or equivalents shall be determined solely by the City of Gallup.

**CATALOG INFORMATION:** Each Bidder is to specify the Brand Name & Catalog Number they propose to furnish the City of Gallup. Failure to do so can be reason to reject your Bid. Further, it is the sole responsibility of the supplier to furnish the material that meets our Specifications. Supplier must cross reference the Brand Name & Catalog Numbers stated by the City of Gallup and furnish the same or equivalent.

**EQUIVALENTS:** Equals or equivalents to these specifications will be considered provided Bidder furnishes sufficient proof that their offer meets or exceeds the intent of these specifications, unless the specifications state that no substitutions or equivalents are allowed. Failure to submit sufficient data/literature to allow a thorough evaluation of your bid may be cause for rejection of your bid. Therefore, include copies of all pertinent data, specifications, or descriptive literature. The City will be the sole entity to determine the acceptance or non-acceptance of any modifications or deviations. The acceptance or rejection of equivalents shall be determined solely by the City of Gallup.

**SUBSTITUTIONS:** Any material substituted from that originally bid shall have the prior approval of the City before shipping to the City. If a Purchase Order is issued and upon receipt the material does not meet the Specifications, the City will return the material Freight Collect, and may at its option cancel the order.

**QUANTITIES:** Quantities, where listed, are intended to indicate estimated average ANNUAL usage. They do not constitute an order and actual usage may increase or decrease. The City does not guarantee the purchase of any specific minimum quantities, and reserves the right to order some, all or none of the items on the bid. Items may be deleted from the bid, or items similar or related in nature may be added to the bid. No material may be shipped or delivered without a valid Purchase Order Number issued by the City.

The City reserves the right to surpass this Bid if successful Bidder is unable to fill an order, and buy from another immediate source in order to fulfill an emergency need.

**FORMS COMPLETION:** Exceptions to the specifications shall be listed and fully explained on a separate page entitled "Exceptions to Specifications". The exceptions shall refer to the specification page and paragraph number the nature of each exception should be described in as much detail as necessary. Failure to do so may be reason to reject your bid.

**STANDARD OF QUALITY:** The similarity to any brand name is for the purpose of describing a standard of quality, performance and characteristics desired and not intended to limit or restrict competition. Bidders must state the brand name and model being bid and provide proof that the merchandise bid is **equal or equivalent** to the specifications. The City shall be the sole entity to determine acceptance or non-acceptance of equivalents.

**COMPETENCY OF BIDDER:** Bids will be considered only from firms which are regularly engaged in providing the type of materials described in the bid and who can provide evidence that they have established a satisfactory record of performance to insure they can execute the requirements as stated herein. Any determination as to competency shall be made by appropriate City staff.

**DELIVERY:** Will be an important part in awarding the Bid. If a vendor breaches his contract by failing to deliver according to the time specified in the bid, the City of Gallup reserves the right to cancel the contract and to recover from the vendor any damages it suffers because of said breach.

**NON-CONFORMING MATERIAL:** If the City of Gallup issues a Purchase Order and upon receipt the material does not meet the Specifications, the City will return the material Freight Collect, and at its option cancel the order and recover from the vendor any damages suffered.

**BILLING:** All goods or services must be billed to the City of Gallup and at prices not exceeding those stated on the Purchase Order. If prices or terms do not agree with your quotation, notify the Purchasing Department immediately.

**PAYMENT OR ACCEPTANCE NOT CONCLUSIVE:** Vendor will supply the City with invoice for payment. No payment made under this contract shall be conclusive evidence of the performance of this contract, either wholly or in part, and that no payment made for the delivery of the items in whole or in part shall be construed as an acceptance of defective work or improper materials, nor relieve the Bidder from corrections of the defects. The final acceptance shall not be binding upon the City, nor conclusive, should it subsequently develop the Bidder has furnished inferior items or had departed from the specifications and/or the terms of the contract. Should such conditions become evident, the City shall have the right, notwithstanding final acceptance and payment, to cause the item(s) to be properly furnished in accordance with the specifications (and drawings, if any) at the cost and expense of the Bidder.

**F.O.B. POINT:** All material shall be quoted F.O.B. **DESTINATION**, Freight Prepaid and Allowed. Bidders are cautioned that quoting material other than F.O.B. Destination may result in a finding of their bids as Non-responsive. City of Gallup Ordinances and State Law do not allow the City to own tangible goods or for services prior to receiving if said good or prior to service being rendered. All price(s) bid shall be Freight Prepaid, freight included in prices. The City of Gallup will not pay separately stated freight charges.

**PRICE TERMS:** Bidder agrees that the prices bid shall remain in effect for 30 days from the date of the Bid Opening and subject to acceptance by the City of Gallup within that period. Acceptance period may be extended with the mutual agreement of the City and the Bidder.

**CANCELLATION:** The City reserves the right to cancel any contract resulting from this request for convenience by giving written notice to the vendor. The City shall be liable to the vendor for any services provided or material ordered and accepted prior to termination.

If the vendor fails to fulfill any obligation resulting from this contract in a timely and responsive manner, or if the vendor violates any of the terms of this contract, the City shall have the right to cancel the contract by giving written notice of cancellation to the vendor and recover from the vendor any damages resulting from vendor's failure to perform.

**LOCAL AND RESIDENT PREFERENCE:** In accordance with City Ordinance, a local preference may be afforded a bidder who qualifies as a City of Gallup resident business as defined by the City of Gallup Procurement Ordinance. Preference factors can be accessed at:

<http://www.sterlingcodifiers.com/NM/Gallup/index.htm>

The State of New Mexico and the City of Gallup also grant a preference for qualified New Mexico Resident Businesses or Resident Veterans Businesses certified by the State of New Mexico Department of Taxation and Revenue, in accordance with Sections 13-1-21 to 13-1-22 NMSA 1978. **You must furnish a copy of your State of New Mexico Resident Business or Resident Veterans Business Certificate with your bid to be considered for the in-state preference.** For information on State of New Mexico resident business or Resident Veterans Business certification call 505-827-0951 or to download applications, go to: [www.tax.newmexico.gov](http://www.tax.newmexico.gov) , select "Businesses" and click on "Popular Information" and then select "In-State Preference Certification".

The applicable City of Gallup Resident Business preference or State of New Mexico Resident Bidder's or Veteran's Preference will be factored into bid prices where applicable. However, preferences are not cumulative and a bidder will receive only one preference

**AMENDMENTS:** If any questions or responses require revision to the solicitation as originally published, such revisions will be by formal amendment only. If the solicitation includes a contact person for technical information, offerors are cautioned that any oral or written representations made by this or any person that appear to change materially any portion of the solicitation shall not be relied upon unless subsequently ratified by a written amendment to this solicitation issued by the Purchasing Office. For a determination as to whether any representation made requires that an amendment be issued, contact the Purchasing Office.

**CONTACT INFORMATION:** Questions or clarifications regarding any phase of this solicitation, including specifications, shall be directed to Frances Rodriguez, Purchasing Director, P.O. Box 1270, Gallup, New Mexico 87305; Telephone: (505)863-1334; Fax: (505)722-5133; Email: [frdriguez@gallupnm.gov](mailto:frdriguez@gallupnm.gov) who shall be the sole point of contact for this bid. Questions submitted after **June 30, 2016** may not be addressed.

**PROTESTS:** Any bidder or offeror who is aggrieved in connection with a solicitation or award of a contract may protest to the central purchasing office. The protest must be submitted in writing within seven (7) calendar days after knowledge of the facts or occurrences giving rise thereto.

**TOTAL ALL OR NONE:** Material and Services on this Bid will be on a Total All or None basis where indicated. If no responsive all or none offers are received, the City reserves the right to award the Bid in whatever it deems to be in its best interest.

**APPROPRIATIONS:** The terms of this Agreement are contingent upon sufficient monies being made available by the City of Gallup for the performance of this Agreement. If sufficient appropriations and authorizations are not made by the City of Gallup, this Agreement shall terminate upon written notice being given by the City to the Contractor. The City's decision as to whether sufficient appropriations are available shall be accepted by the Contractor and shall be final.

**AWARD:** The award, if made, shall be made to the lowest responsible Bidder submitting a responsive bid that is most advantageous to the public.

The City reserves the right to reject any or all Bids. Bids may be rejected for, among other reasons:

- Bids containing any irregularities.
- Unbalanced value of any items.
- Reason for believing collusion exists among the Bidders.
- The Bidder being interested in any litigation against the City.
- The Bidder being in arrears on any existing contract or having defaulted on a previous contract; or within the past three years been formally debarred in the State of New

Mexico or any other jurisdiction; or whose license has been suspended or revoked by the appropriate licensing authority

- Lack of responsibility as may be revealed by a financial statement, experience and equipment, questionnaires, etc.
- Uncompleted work which in the judgment of the City will prevent or hinder the prompt completion of additional work if awarded.

**GOVERNING LAW:** This Agreement shall be construed in accordance with the laws of the State of New Mexico.

**PROCUREMENT CODE:** The City of Gallup and State of New Mexico Procurement Code shall apply.

**PROCUREMENT CODE VIOLATIONS:** The Procurement Code imposes civil and criminal penalties for its violation. In addition, the New Mexico Criminal Statutes impose felony penalties for illegal bribes, gratuities, and kick-backs.

THE CITY OF GALLUP RESERVES THE RIGHT TO CANCEL THE BID, OR REJECT ANY OR ALL BIDS IN WHOLE OR IN PART, TO WAIVE TECHNICALITIES AND TO ACCEPT THE PROPOSAL IT DEEMS TO BE IN THE BEST INTEREST OF THE CITY.

**SUPPLEMENTAL TERMS AND CONDITIONS**  
**FORMAL BID NO. 1615**

**ELECTRONIC COMMUNICATIONS:** Communications regarding this procurement, including issuance of any amendments, may be conducted by electronic means (e-mail or fax). However, electronic submittals of the bid whether by fax, email, or other electronic means are NOT acceptable as noted in the General Conditions.

**UNIT PRICES:** Typographical errors, errors in extending unit prices, arithmetic errors or errors clearly evident on the face of the bid document may be corrected in accordance with the Procurement Ordinance and Procurement Regulations. Discrepancies involving the incorrect extension of unit prices shall be resolved in favor of unit prices as unit prices cannot be corrected.

**TAXES:** All bid prices shall be quoted EXCLUSIVE of taxes.

**PROMPT PAYMENT DISCOUNTS:** Except in the case of tie bids, prompt payment discounts shall not be considered in computing the low bid. Such discounts may be considered after award of the contract.

**CONTRACT TERM:** This is an INDEFINITE QUANTITY Contract of One (1) Year duration. Contract may be renewed for up to three (3) each additional one (1) year periods upon written notice to and acceptance by the vendor.

**ESCALATION CLAUSE:** An Escalation Clause is used as part of the Bid Proposal in accordance with the terms of the Escalation Clause on Page 17 of this bid.

**CANCELLATION:** The City reserves the right to cancel any contract resulting from this request for convenience by giving written notice to the vendor. The City shall be liable to the vendor for any services provided or material ordered and accepted prior to termination.

**CANCELLATION FOR CAUSE:** In the event the vendor should fail to perform any of the terms or conditions of the contract and should fail to certify the fault or deficiency within ten (10) days after receipt of written notice from the City of such failure, the City shall have the right to terminate the contract immediately.

**ACKNOWLEDGEMENT OF RECEIPT:** The Acknowledgment of Receipt should be signed and returned to the Purchasing Office as soon as possible but no later than 5:00 P.M. local time on April 18, 2016. **Only potential bidders who elect to return this form completed with the indicated intention of submitting a bid will receive copies of all written questions and the City's written responses to those questions as well as copies of Amendments, if any are issued.**

**BID DOCUMENTS:** Bid documents may be retrieved by accessing the Purchasing page of the City of Gallup website, [www.gallupnm.gov/bids](http://www.gallupnm.gov/bids) , by calling (505) 863-1232 or visiting the Central Purchasing Office at 110 West Aztec, Gallup, NM 87301.

The City of Gallup will notify vendors of record of amendments/addenda that are issued. If not a vendor on record, or if solicitation was downloaded through the City of Gallup website, it shall be the vendor's responsibility to check website frequently for copies of any addenda/amendments or correspondence concerning the solicitation. Failure to acknowledge all addenda could result in rejection of your bid/proposal as non-responsive. In the case of an inconsistency between information on City of Gallup website and the Purchasing file document, the file document shall prevail.

**EXISTING AGREEMENT:** Under the terms and conditions of this Bid all public bodies allowed by law may procure the supplies or services under this Bid as described herein. The terms and conditions of this Bid shall form a part of each order issued herein. Each public body shall be responsible for their own orders and the City of Gallup accepts no responsibility for other entities.

**CONTACT INFORMATION:** If clarification is needed on any part of the General Conditions and Specifications/Scope of Work, contact Frances Rodriguez, Purchasing Director, P.O. Box 1270, Gallup, New Mexico 87305; Telephone: (505)863-1334; Fax: (505)722-5133; Email: [frodriguez@gallupnm.gov](mailto:frodriguez@gallupnm.gov)

## **NOTICE TO BIDDERS**

As of October 5, 2011 applications for Resident New Mexico in-state bidders will no longer be processed through the State Purchasing Division. All resident business and contractors will have to obtain a new preference number with the New Mexico Department of Taxation and Revenue as of January 1, 2012.

**It will be the sole responsibility of the Bidders requesting consideration for the New Mexico Resident Bidders Preference to obtain approval and a certification from the New Mexico Department of Taxation & Revenue prior to the bid opening date. You must furnish a copy of the Resident Bidders Certificate with your bid in order to be considered for the in-state preference.**

**As of July 1, 2012 a New Mexico Resident Veteran's Business preference number may be obtained from the New Mexico Department Taxation and Revenue Department. In order to be considered for the New Mexico Veteran's Contractor preference a copy of the Certificate must be included with your bid as per Sections 13-1-22 (A) NMSA 1978.**

For additional information please call 505-827-0951, or to download applications log on at: [WWW.TAX.NEWMEXICO.GOV](http://WWW.TAX.NEWMEXICO.GOV), select "Businesses" and click on "Popular Information" and then click on "In-State Preference Certification".

**CITY OF GALLUP  
FORMAL BID NO. 1615**

**ADDITIONAL TERMS AND CONDITIONS**

1. **GENERAL.** When the City of Gallup Purchasing Department issues a purchase document in response to the Vendors bid, a binding contract is created.
  
2. **FORM OF SUBMISSION.** Bid Offers shall be made on Bid Offer Forms, or reasonable facsimilies, furnished by City of Gallup. Bidders are requested to provide one (1) original and one (1) copy of the Bid. The outside package should identify the Project Name, Bid Number, Bid Opening Date and Name of Bidder. Any costs associated with a bid submission shall be borne by the bidder. The City will not be liable for any costs incurred by the bidder in responding to this solicitation.
  
3. **DEBARRED OR SUSPENDED CONTRACTORS.** A business (contractor, subcontractor or supplier) that has either been debarred or suspended pursuant to the requirements of .13-1-177 through .13-1-180, and .13-4-11 through .13-4-17 NMSA 1978 as amended, shall not be permitted to do business with City of Gallup and shall not be considered for award of the contract during the period for which it is debarred or suspended.
  
4. **ASSIGNMENT.**
  - A: Neither the order, nor any interest therein, nor claim thereunder, shall be assigned or transferred by the Vendor, except as expressly authorized in writing by the City of Gallup Procurement Administrator. No such assignment or transfer shall relieve the Vendor from the obligations and liabilities under this order.
  
  - B: Vendor agrees that any and all claims for overcharge resulting from antitrust violations which are borne by the City of Gallup as to goods, services, and materials purchased in connection with this bid are hereby assigned to the City of Gallup.
  
5. **DISCOUNTS.** Except in the case of tie bids, prompt payment discounts will not be considered in computing the low bid. Discounts for payment will be considered after the award of the contract. Discounted time will be computed from the date of receipt of the merchandise or invoice, whichever is later.
  
6. **INSPECTION.** Final inspection and acceptance will be made at the site. Goods rejected at the site for non-conformance with specifications shall be removed, at the Vendor's risk and expense, promptly after notice of rejection.
  
7. **INSPECTION OF PLANT.** The City of Gallup Procurement Administrator may inspect, at any reasonable time, the part of the contractor's, or any subcontractor's plant or place of business, which is related to the performance of this contract.
  
8. **LIABILITY.** The Vendor agrees that City of Gallup shall not be held liable for any costs incurred in preparation of this bid.

9. TAXES. The bid prices shall exclude all taxes. Wherever requested in bid response, Vendor shall submit taxes on total bid as a separate unit item. Bids shall be awarded on unit price without regard of tax.

10. DEFAULT. The City of Gallup reserves the right to cancel all or any part of this order without cost to the City of Gallup, if the Vendor fails to meet the provisions of this order and, except as otherwise provided herein, to hold the Vendor liable for any excess costs if failure to perform the order arises out of causes beyond the control and without the fault or negligence of the Vendor, such causes include but are not restricted to acts of God or the public enemy, acts of the State or Federal government, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, unusually severe weather, and defaults of subcontractors due to any of the above, unless the City of Gallup shall determine that the supplies or services to be furnished by the subcontractor were obtainable from other sources in sufficient time to permit the Vendor to meet the required delivery schedule. The rights and remedies of the City of Gallup provided in this paragraph shall not be exclusive and are in addition to any other rights now being provided by law or under this order.

11. NON-COLLUSION. In, signing this bid, the Vendor certifies that he/she has not, either directly or indirectly, entered into any action in constraint of free competitive bidding in connection with this proposal submitted to the City of Gallup Procurement Administrator.

12. NON-DISCRIMINATION. Vendors doing business with City of Gallup must be in compliance with the Federal Civil Rights Act of 1964 and Title VII of the Act, (Rev.,1979), and the Americans Disabilities Act of 1990. (Public Law 101-336).

13. METHOD OF AWARD. A contract will be awarded to a single bidder based on pricing and compliance with the specifications and requirements. City of Gallup reserves the right to waive irregularities, reject offers in whole or in part, and award this Bid in the best interest of the City of Gallup.

14. RIGHT TO DISCONTINUE PROCUREMENT. The City of Gallup reserves the right to cancel this INVITATION TO BID at any time, and to reject any or all bids, or otherwise to proceed in the best interests of the City of Gallup. This in no manner obligates the City of Gallup or any of its agencies to the eventual purchase of any product or service, whether explicitly described or implied herein, until confirmed by a written contract and/or Purchase Order.

15. F.O.B. POINT: All material shall be quoted F.O.B. **DESTINATION**, Freight Prepaid. Bidders are cautioned that quoting material other than F.O.B. Destination may result in a finding of their bids as Non-responsive. City of Gallup Ordinances and State Law do not allow the City to own tangible goods or for services prior to receiving if said good or prior to service being rendered. All price(s) bid shall be Freight Prepaid, freight included in prices. The City of Gallup will not pay separately stated freight charges.

16. LATE BIDS. Any bid received after the specified time and date will be declared a "Late Bid" and will NOT be considered. Please provide ample time if using carriers such as FedEx or UPS,

etc. Delays caused by commercial airlines or express carriers such as FedEx and UPS are not excusable and bids will therefore be considered late and will **NOT** be accepted. Weather forecasts should be monitored and taken into consideration in the planning of mailing of bids and/or proposals.

17. **SPECIAL INSTRUCTIONS.** To preclude possible errors and/or misinterpretations, bid prices must be affixed **LEGIBLY** in ink, or typewritten. Corrections or changes must be signed or initialed by bidder prior to schedule bid opening. Failure to do so will be just cause for rejection of bid.

A. Bidders shall hold their bid pricing for thirty (30) days after bid opening.

18. **EXISTING AGREEMENT.** Under the terms and conditions of this Bid all public bodies allowed by law may procure the supplies or services under this Bid as described herein. The terms and conditions of this Bid shall form a part of each order issued herein, but each public body shall be responsible for their own orders.

**SPECIAL TERMS AND CONDITIONS:**

**1A. LAWS / CODES / STANDARDS / REGULATIONS:**

Contractor will be responsible for complying with all applicable local, state and federal regulations regarding transportation of materials, as well as all fees, permits and/or authorization required for delivery. Contractor will provide all supervision of employees required and be responsible for maintenance, insurance, mileage, fuel, permits, licenses, etc. required for the operation of the vehicles or equipment used for transportation. These requirements and all associated costs for providing the services shall be included in the bid price.

Equipment and services supplied under this solicitation shall meet and comply will all current applicable Federal, State, and local laws, codes, standards, and regulations, and applicable industry safety standards and requirements.

The Contractor shall be properly licensed and qualified to furnish services and to perform the required work under applicable licensing statutes of the State of New Mexico and other applicable regulatory agencies. Contractor shall comply with all applicable Federal, State and local government codes, laws, regulations, and requirements in the performance of the work described herein.

**1B. INDEPENDENT CONTRACTOR.**

The bidder awarded an agreement under this solicitation is an independent contractor and shall perform its obligations under this agreement, as it deems necessary and appropriate. The successful Contractor and its officers, directors, agents and employees, are independent contractors performing services for the City of Gallup and are not employees of the City of Gallup. The successful Contractor, and its officers, directors, agents, and employees, shall not accrue leave, retirement, insurance bonding, use of City of Gallup vehicles or any other benefits afforded to employees of the City of Gallup. The successful Contractor covenants that it

presently has no interest, and shall not acquire any interest, direct or indirect, financial or otherwise, which would conflict in any manner or degree with the performance of the required services.

#### 1C. INDEMNITY.

The Contractor agrees, as material consideration for this Agreement, to defend, indemnify, and hold harmless the City of Gallup, its Elected Officials, Agents, and employees from and against any and all claims arising out of any asserted negligent act, error or omission of the Contractor, its officers, directors, employees or agents or arising in any way from this agreement or the Contractor's activities hereunder. The indemnity agreed to in this paragraph shall not extend to liabilities, claims, damages, losses or expenses, including attorney fees arising out of: The preparation or approval of maps, drawings, opinions, reports, surveys, change orders, designs or specifications by the City of Gallup, or the agents or employees of the City of Gallup, or the giving of or the failure to give directions or instructions by the City of Gallup, or the agents or employees of the City of Gallup, where such giving or failure to give directions or instructions is the primary cause of bodily injury to persons or damage to property.

#### 1D. TERMINATION OF CONTRACT:

In the event of a breach on any provision of the Agreement, the City of Gallup shall notify the Contractor of the fault within a reasonable time. If the Contractor fails to cure the breach or make other arrangements satisfactory to the City of Gallup, the City of Gallup may immediately terminate the Price Agreement or take other steps, as it deems necessary. Safety related items must be corrected within twenty-four (24) hours. The Contractor shall pay the City of Gallup all costs and expenses, including reasonable attorney's fees incurred by the City of Gallup, in exercising any of its rights or remedies in connection with enforcement of the Agreement.

The City of Gallup may terminate this Agreement for Convenience at any time, without penalty of any kind, by giving notice in writing to the Contractor. Said termination shall not nullify any payments due contractor for costs and work completed incurred through the date of termination.

#### 1E APPROPRIATIONS:

The terms of this Agreement are contingent upon sufficient monies being made available by the City of Gallup for the performance of this Agreement. If sufficient appropriations and authorizations are not made by the City of Gallup, this Agreement shall terminate upon written notice being given by the City to the Contractor. The City's decision as to whether sufficient appropriations are available shall be accepted by the Contractor and shall be final.

#### 1F. GOVERNING LAW.

The contract awarded to a Contractor as a result of this solicitation shall be governed in accordance with the laws of the State of New Mexico and the City of Gallup Ordinances.

## ESCALATION CLAUSE

Price escalations may be considered only under the following conditions:

- A. Offered prices must be firm for at least ninety (90) calendar days after written notification of contract.
- B. All requests for price increases shall be accompanied by:
  - a) a letter from the Contractor's supplier certifying the price increase to the Contractor; or
  - b) evidence of verifiable market conditions resulting in increased costs such as mandated labor rate increases and significant fuel or energy cost increases.
- C. All invoices of the offered items, from suppliers to the Offeror, shall be subject to auditing by the City and furnished without delay upon request.
- D. The City reserves the right to cancel a contract resulting from this request and solicit a new contract if the escalated price is above the current open market price for the same item, or obtain material on the open market. Cancellation of the contract shall not affect any outstanding orders.
- E. All revisions of the price list shall become effective when they are received, in writing, and accepted by the Purchasing Office of the City, provided that they do not conflict with item (F) of this Clause.
- F. All approved price changes resulting from this escalation clause shall be firm for a period of ninety (90) calendar days after acceptance in writing from the City.
- G. The Offeror shall be limited to a maximum of two (2) price escalations per contract year period unless otherwise specified in this request.
- H. The Offeror shall provide to the City written notice of any requested price changes, which shall become effective upon acceptance by the City of Gallup Purchasing Office.
- I. If the Offeror receives any price de-escalations from the supplier of goods sold to the City through a contract resulting from this request, the Offeror is responsible for notifying the City of such de-escalations, and passing those price changes on to the City immediately.

**Resident Veterans Preference Certification**  
Formal Bid No. 1615

(This Form Must be submitted with your bid if you are certified as a New Mexico Resident Veterans business)

\_\_\_\_\_ (NAME OF CONTRACTOR) hereby certifies the following in regard to application of the resident veterans' preference to this procurement:

**Please check one box only**

- I declare under penalty of perjury that my business prior year revenue starting January 1 ending December 31 is less than \$1M allowing me the 10% preference discount on this solicitation. I understand that knowingly giving false or misleading information about this fact constitutes a crime.
- I declare under penalty of perjury that my business prior year revenue starting January 1 ending December 31 is more than \$1M but less than \$5M allowing me the 8% preference discount on this bid or proposal. I understand that knowingly giving false or misleading information about this fact constitutes a crime.
- I declare under penalty of perjury that my business prior year revenue starting January 1 ending December 31 is more than \$5M allowing me the 7% preference discount on this bid or proposal. I understand that giving false or misleading information about this fact constitutes a crime.

"I agree to submit a report, or reports, to the State Purchasing Division of the General Services Department declaring under penalty of perjury that during the last calendar year starting January 1 and ending on December 31, the following to be true and accurate:

"In conjunction with this procurement and the requirements of this business' application for a Resident Veteran Business Preference/Resident Veteran Contractor Preference under Sections 13-1-21 or 13-1-22, NMSA 1978, when awarded a contract which was on the basis of having such veterans preference, I agree to report to the State Purchasing Division of the General Services Department the awarded amount involved. I will indicate in the report the award amount as a purchase from a public body or as a public works contract from a public body as the case may be.

"I understand that knowingly giving false or misleading information on this report constitutes a crime."

I declare under penalty of perjury that this statement is true to the best of my knowledge. I understand that giving false or misleading statements about material fact regarding this matter constitutes a crime.

\_\_\_\_\_  
(Signature of Business Representative)\*

\_\_\_\_\_  
Date

\*Must be an authorized signatory for the Business

The representations made in checking the boxes constitutes a material representation by the business that is subject to protest and may result in denial of an award or un-award of the procurement involved if the statements are proven to be incorrect.

**AMENDMENTS: BIDDER ACKNOWLEDGES RECEIPT OF THE FOLLOWING AMMENDMENTS:**

AMENDMENT No. \_\_\_\_\_ Date \_\_\_\_\_ Initials: \_\_\_\_\_  
AMENDMENT No. \_\_\_\_\_ Date \_\_\_\_\_ Initials: \_\_\_\_\_

Failure to acknowledge receipt as provided above may be sufficient grounds for disqualification of the bidder and rejection of his proposal. It shall be the contractor's responsibility to become fully advised of all addenda prior to submitting a bid.

**Bidder's Checklist of Submittal Documents**

- Resident Veterans Certification form (if Applicable), Page 18
- Bidders **MUST** include a Copy of their New Mexico Resident Business or New Mexico Resident Veteran's Business Certificate issued by the State Taxation and Revenue Dept. (if applicable), to qualify for application of the State Preference to the bid
- Cost Proposal, Page(s) 21-27
- Acknowledge Receipt of Amendments (if any), Page 19 (this page)
- Exceptions to Specifications, Page 20
- A current IRS Form W-9

**TAXES:** All bid prices shall exclude taxes. The City will pay any applicable taxes due at the applicable tax rate based upon billing submitted by the Vendor. Taxes shall be shown as a separate line item on Vendor's invoices. The City is non-taxable on tangible goods.

Contractor Name: \_\_\_\_\_ Payment Terms: \_\_\_\_\_

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

\_\_\_\_\_

\_\_\_\_\_

F.O.B.: **DESTINATION**

Delivery ARO: \_\_\_\_\_

Telephone No.: \_\_\_\_\_

Fax No.: \_\_\_\_\_

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

Signed By: \_\_\_\_\_

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

Name Printed or Typed

\_\_\_\_\_

Signature



Item	Requested		Description:	Unit	
Number:	Unit:	Quantity:		Price:	Amount:
1	EACH	5	TRANSFORMER CONVENTIONAL 25 KVA.13800/7970, 120/240 VOLT SINGLE PHASE.	_____	_____

Stock Number: E6060

Name and Catalog Number: PER "CITY OF GALLUP" SPECIFICATIONS.

Bidder's Brand and Catalog Number: \_\_\_\_\_ Delivery Date: \_\_\_\_\_

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Item	Requested		Description:	Unit	
Number:	Unit:	Quantity:		Price:	Amount:
2	EACH	5	TRANSFORMER CONVENTIONAL 50 KVA. 13800/7970, 120/240 VOLT SINGLE PHASE.	_____	_____

Stock Number: E6062

Name and Catalog Number: PER "CITY OF GALLUP" SPECIFICATIONS

Bidder's Brand and Catalog Number: \_\_\_\_\_ Delivery Date: \_\_\_\_\_

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Item	Requested		Description:	Unit	
Number:	Unit:	Quantity:		Price:	Amount:
3	EACH	3	TRANSFORMER CONVENTIONAL 75 KVA. 13800/7970, 120/240 VOLT SINGLE PHASE.	_____	_____

Stock Number: E6063

Name and Catalog Number: PER "CITY OF GALLUP" SPECIFICATIONS.

Bidder's Brand and Catalog Number: \_\_\_\_\_ Delivery Date: \_\_\_\_\_

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Item	Requested		Description:	Unit	
Number:	Unit:	Quantity:		Price:	Amount:
4	EACH	5	TRANSFORMER, C.S.P. 5 KVA 13800/7970 120/ 240 VOLT SINGLE PHASE	_____	_____

Stock Number: E6093

Name and Catalog Number: PER "CITY OF GALLUP" SPECIFICATIONS

Bidder's Brand and Catalog Number: \_\_\_\_\_ Delivery Date: \_\_\_\_\_

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Item	Requested		Description:	Unit	
Number:	Unit:	Quantity:		Price:	Amount:
5	EACH	5	TRANSFORMER, C.S.P. 10 KVA 13800/7970 120/240 VOLT SINGLE PHASE	_____	_____

Stock Number: E6094

Name and Catalog Number: PER "CITY OF GALLUP" SPECIFICATIONS

Bidder's Brand and Catalog Number: \_\_\_\_\_ Delivery Date: \_\_\_\_\_

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Item	Requested		Description:	Unit	
Number:	Unit:	Quantity:		Price:	Amount:
6	EACH	6	TRANSFORMER C.S.P. 25 KVA. 13800/7970, 120/240 VOLT SINGLE PHASE.	_____	_____

Stock Number: E6095

Name and Catalog Number: PER "CITY OF GALLUP" SPECIFICATIONS.

Bidder's Brand and Catalog Number: \_\_\_\_\_ Delivery Date: \_\_\_\_\_

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Item	Requested		Description:	Unit	
Number:	Unit:	Quantity:		Price:	Amount:
7	EACH	6	TRANSFORMER C.S.P. 50 KVA 13800/7970, 120/240 VOLT SINGLE PHASE.	_____	_____

Stock Number: E6097

Name and Catalog Number: PER "CITY OF GALLUP" SPECIFICATIONS.

Bidder's Brand and Catalog Number: \_\_\_\_\_ Delivery Date: \_\_\_\_\_

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Item	Requested		Description:	Unit	
Number:	Unit:	Quantity:		Price:	Amount:
8	EACH	3	TRANSFORMER, PADMOUNT 10 KVA 13800/7970 240/120 VOLT SINGLE PHASE	_____	_____

Stock Number: E6118

Name and Catalog Number: PER "CITY OF GALLUP" SPECIFICATIONS

Bidder's Brand and Catalog Number: \_\_\_\_\_ Delivery Date: \_\_\_\_\_

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Item	Requested		Description:	Unit	
Number:	Unit:	Quantity:		Price:	Amount:
9	EACH	3	TRANSFORMER, PADMOUNT 25 KVA 13800/7970 240/120 VOLT SINGLE PHASE	_____	_____

Stock Number: E6119

Name and Catalog Number: PER "CITY OF GALLUP" SPECIFICATIONS

Bidder's Brand and Catalog Number: \_\_\_\_\_ Delivery Date: \_\_\_\_\_

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Item	Requested		Description:	Unit	
Number:	Unit:	Quantity:		Price:	Amount:
10	EACH	3	TRANSFORMER PADMOUNT 50 KVA. 13800/7970 240/120 SINGLE PHASE.	_____	_____

Stock Number: E6121

Name and Catalog Number: PER "CITY OF GALLUP" SPECIFICATIONS.

Bidder's Brand and Catalog Number: \_\_\_\_\_ Delivery Date: \_\_\_\_\_

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Item	Requested		Description:	Unit	
Number:	Unit:	Quantity:		Price:	Amount:
11	EACH	2	TRANSFORMER PADMOUNT 100 KVA. 13800/7970 240/120 VOLT, SINGLE PHASE.	_____	_____

Stock Number: E6123

Name and Catalog Number: PER "CITY OF GALLUP" SPECIFICATIONS.

Bidder's Brand and Catalog Number: \_\_\_\_\_ Delivery Date: \_\_\_\_\_

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Item	Requested		Description:	Unit	
Number:	Unit:	Quantity:		Price:	Amount:
12	EACH	2	TRANSFORMER PADMOUNT 75KVA. 13800/7970 120/208, 3-PHASE.	_____	_____

Stock Number: E6130

Name and Catalog Number: PER "CITY OF GALLUP" SPECIFICATIONS.

Bidder's Brand and Catalog Number: \_\_\_\_\_ Delivery Date: \_\_\_\_\_

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Item	Requested		Description:	Unit	
Number:	Unit:	Quantity:		Price:	Amount:
13	EACH	2	TRANSFORMER PADMOUNT 150 KVA. 13800/7970 120/208Y 3-PHASE.	_____	_____

Stock Number: E6133

Name and Catalog Number: PER "CITY OF GALLUP" SPECIFICATIONS.

Bidder's Brand and Catalog Number: \_\_\_\_\_ Delivery Date: \_\_\_\_\_

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Item	Requested		Description:	Unit	
Number:	Unit:	Quantity:		Price:	Amount:
14	EACH	2	TRANSFORMER PADMOUNT 225KVA 13800/7970, 120/208Y, 3-PHASE.	_____	_____

Stock Number: E6134

Name and Catalog Number: PER "CITY OF GALLUP" SPECIFICATIONS.

Bidder's Brand and Catalog Number: \_\_\_\_\_ Delivery Date: \_\_\_\_\_

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Item	Requested		Description:	Unit	
Number:	Unit:	Quantity:		Price:	Amount:
15	EACH	4	TRANSFORMER PADMOUNT 300 KVA. 13800/7970, 120/208Y, 3-PHASE.	_____	_____

Stock Number: E6135

Name and Catalog Number: PER "CITY OF GALLUP" SPECIFICATIONS.

Bidder's Brand and Catalog Number: \_\_\_\_\_ Delivery Date: \_\_\_\_\_

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Item	Requested		Description:	Unit	
Number:	Unit:	Quantity:		Price:	Amount:
16	EACH	2	TRANSFORMER PADMOUNT 500 KVA, 13800/7970 120-208Y, 3-PHASE.	_____	_____

Stock Number: E6136

Name and Catalog Number: PER "CITY OF GALLUP" SPECIFICATIONS.

Bidder's Brand and Catalog Number: \_\_\_\_\_ Delivery Date: \_\_\_\_\_

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Item	Requested		Description:	Unit	
Number:	Unit:	Quantity:		Price:	Amount:
17	EACH	2	TRANSFORMER PADMOUNT 225 KVA. 13800/7970, 277/480Y, 3-PHASE.	_____	_____

Stock Number: E6140

Name and Catalog Number: PER "CITY OF GALLUP" SPECIFICATIONS.

Bidder's Brand and Catalog Number: \_\_\_\_\_ Delivery Date: \_\_\_\_\_

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Item	Requested		Description:	Unit	
Number:	Unit:	Quantity:		Price:	Amount:
18	EACH	1	TRANSFORMER PADMOUNT 300 KVA., 13800/2400 DELTA, 3-PHASE.	_____	_____

Stock Number: E6144

Name and Catalog Number: PER "CITY OF GALLUP" SPECS, FOR WELLS SEE SPECIAL SPECIFICATIONS.

Bidder's Brand and Catalog Number: \_\_\_\_\_ Delivery Date: \_\_\_\_\_

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<b>Item</b>	<b>Requested</b>		<b>Description:</b>	<b>Unit</b>	<b>Price:</b>	<b>Amount:</b>
<b>Number:</b>	<b>Unit:</b>	<b>Quantity:</b>			_____	_____
19	EACH	1	TRANSFORMER, PADMOUNT 500 KVA 13800WYE/2400 DELTA 3-PHASE F/ WELLS			

**Stock Number:** E6156

**Name and Catalog Number:** PER "CITY OF GALLUP" SPECIFICATIONS

**Bidder's Brand** **Delivery**  
**and Catalog Number:** \_\_\_\_\_ **Date:** \_\_\_\_\_

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**Specification for  
Overhead Single Phase  
Conventional Transformer**

**Stock Numbers**

**E-6060** (Item 1)

**E-6062** (Item 2)

**E-6063** (Item 3)

**E-6067** (not on bid)

**E-6068** (not on bid)

## **SPECIFICATIONS FOR OVERHEAD SINGLE PHASE CONVENTIONAL DISTRIBUTION TRANSFORMER**

### **1.0 SCOPE AND APPLICATION**

This specification is applicable for the mechanical and electrical requirements for Conventional type single phase, 60 Hertz, oil-filled, self-cooled distribution transformers in various KVA rating for use on an overhead electric distribution system.

### **2.0 COMPLIANCE WITH STANDARDS**

All transformers shall be designed, manufactured and tested to meet all the requirements specified within the latest revision of ANSI and NEMA standards to include the *2013 Department of Energy standards*. In the event that any of the referenced standards are shown to be contradictory, then the most stringent standard shall apply.

### **3.0 RATINGS**

3.1 All ratings shall be based on and not exceed a 65 °C winding temperature rise. The high voltage basic impulse insulation level (BIL) shall be 95 KV.

3.2 High Voltage: 7970/13800 Grounded WYE with no taps.

3.3 Low Voltage: 120/240, 277/480 as requested

3.4 Size (KVA): 25, 50, 75 as requested.

### **4.0 DESIGN AND CONSTRUCTION**

4.1 The transformers shall be assembled in accordance with ANSI latest revision. Transformers shall have a sealed-tank oil preservation system

4.2 Tank Construction, Accessories, and Finish

4.2.1 The transformer shall be of all welded steel construction to form an oil-tight sealed unit. The tank cover shall be grounded to the tank by an external strap. Cover band may be galvanized or stainless steel.

4.2.2 The transformer shall remain effectively sealed for a top oil temperature range of -5°C to +105°C. Transformers shall be equipped for two position pole or platform mounting. Mounting hardware shall be constructed and positioned in accordance with the latest ANSI revision.

4.2.3 Lifting lugs shall be provided to allow the safe handling and lifting of the complete transformer unit when filled with insulating fluid.

4.2.4 All exterior bolts, nuts, clamps and other non-painted hardware shall be of non-corrosive material.

4.2.5 The tank finish shall be of high grade paints employing a controlled baking process that will insure a protective coating which is exceptionally serviceable in an area of direct sunlight. The color shall be light gray, No.70, Munsell Notation 5BG 7.0/0.4 as specified in ANSI Z55.1.

- 4.2.6 The transformer KVA rating, the primary voltage and the secondary voltage shall be clearly and permanently marked in black Arabic numerals 2-½" high on the front of the tank below the secondary bushings.

#### 4.3 Bushings

- 4.3.1 The transformer shall have two cover mounted porcelain high voltage bushing with electrical characteristics as required in paragraph 6.1.1.1 and listed in table 6 of ANSI latest revision for 95KV insulation class.
- 4.3.2 The low voltage bushings shall have electrical characteristics in accordance with latest revision of ANSI. Low voltage bushings shall be of the side wall type and shall be mounted singly, constructed of porcelain. The X<sub>2</sub> terminal shall be bussed to the tank by removable copper strap.

#### 4.4 Di-electric Oil

- 4.4.1 Transformers shall be furnished complete with non-PCB mineral oil. A blue decal (approximately 2-½" x 3-½") with white letters shall be placed on the tank. The wording shall be "Filled with Non-PCB mineral oil" or "Filled with Non-PCB mineral oil at time of manufacture".
- 4.4.2 The vendor shall certify that the liquid di-electric or any component of the liquid di-electric is not listed in the Federal Register, Vol. 45, No. 98, issued May 19, 1980, 40FR, Part 461, Appendix VIII, Subpart D - Identification and Listing of Hazardous Waste.

#### 4.5 Impedance

The percent impedance (%IZ) as measured at rated voltage shall be between 1.5 and 3.  
**Units shall have identical impedances.**

#### 4.6 Pressure Relief

- 4.6.1 The transformer shall be equipped with a self-actuating replaceable pressure relief device to relieve slow pressure build up that will automatically vent when pressure reaches 10 ± 2 PSIG and release when pressure falls to 6 PSIG.
- 4.6.2 The body of the valve shall be brass, bronze, or stainless steel.
- 4.6.3 The venting port, on the outward side of the valve head seat shall be protected to prevent the entry of dust, moisture, and insects before and after the valve has actuated.
- 4.6.4 The device shall not have an indicating "pop-off" cover.
- 4.6.5 The device shall have a pull ring for manual or hot stick activation.

### 5.0 QUALITY ASSURANCE

Transformers shall be tested in accordance with ANSI latest revision. Also, the impulse tests specified in ANSI shall be made on all transformers.

**6.0 CERTIFIED TEST REPORTS AND DATA REQUIRED**

At the time of delivery, the vendor shall provide a certified test report for all transformers in a given order, indicating the actual loss data for each unit delivered. The certified test reports shall be mailed directly to:

City of Gallup, Electric Department  
Attn: Richard Matzke, Electric Utility Director  
PO Box 1270  
Gallup NM 87305

**7.0 BID EVALUATION**

7.1 The vendor shall state all exceptions to these specifications. If no exceptions, vendor shall so state. Vendors shall submit as part of the bid an outline drawing showing the physical dimensions, weight, and location of accessories, nameplate, and connection diagrams. Bids received without drawings or loss data will be non-conforming and will not be considered.

7.2 All bidders shall supply No Load, Load and Total losses reported in watts with the bid documents. No load losses shall be reported at 20 °C. The value for load losses shall be corrected to 85 °C.

**8.0 DEVIATION TO SPECIFICATIONS**

Vendors quoting transformers that deviate in any way from the City of Gallup specification shall indicate such by letter. This data shall be sent to the City of Gallup at P.O. Box 1270, Gallup, NM 87305. Attention: Frances Rodriguez Purchasing Director or Richard Matzke, Electric Utility Director. The City of Gallup will evaluate the deviation(s) and determine in writing whether the deviation(s) are accepted or declined.

**9.0 PACKAGING AND SHIPPING**

Each transformer shall be fastened to skids or to a two way entry, disposable pallet of the vendors own design. Pallets must be of such dimensions as to provide two inch (2") clearance of the transformer at its widest outside measurements, on all four sides. Skids or pallets must provide a minimum of 3-½ inches of fork under clearance.

**10.0 WARRANTY**

The vendor shall guarantee the transformers for a period of 18 months from date of delivery or 12 months from date of installation that all equipment covered by this agreement is to be free from defects in material and workmanship. Any defective units discovered or identified during this period will be replaced or repaired by the vendor at no cost to the City of Gallup.

**11.0 APPROVED MANUFACTURERS**

Cooper  
ABB  
General Electric  
Ermco  
Howard Industries

**Specification for  
Overhead Single Phase  
Completely Self Protected Transformer**

**Stock Numbers**

**E-6093** (Item 4)

**E-6094** (Item 5)

**E-6095** (Item 6)

**E-6097** (Item 7)

**E-6098** (not on bid)

**E-6099** (not on bid)

**E-6100** (not on bid)

## **SPECIFICATIONS FOR OVERHEAD SINGLE PHASE COMPLETELY SELF PROTECTED DISTRIBUTION TRANSFORMER**

### **1.0 SCOPE AND APPLICATION**

This specification is applicable for the mechanical and electrical requirements for Completely Self Protected (CSP) type single phase, 60 Hertz, oil-filled, self-cooled distribution transformers in various KVA rating for use on an overhead electric distribution system.

### **2.0 COMPLIANCE WITH STANDARDS**

All transformers shall be designed, manufactured and tested to meet all the requirements specified within the latest revision of ANSI and NEMA standards to include the *2013 Department of Energy standards*. In the event that any of the referenced standards are shown to be contradictory, then the most stringent standard shall apply.

### **3.0 RATINGS**

3.1 All ratings shall be based on and not exceed a 65 °C winding temperature rise. The high voltage basic impulse insulation level (BIL) shall be 95 KV.

3.2 High Voltage: 13800/7970 Grounded WYE with 2-2½ % taps above and 2-2½ % taps below nominal.

3.3 Low Voltage: 120/240, 240/480 as requested

3.4 Size (KVA): 15, 25, 37.5, 50, 75, 100 as requested.

### **4.0 DESIGN AND CONSTRUCTION**

4.1 The transformers shall be assembled in accordance with ANSI latest revision. Transformers shall have a sealed-tank oil preservation system

4.2 Tank Construction, Accessories, and Finish

4.2.1 The transformer shall be of all welded steel construction to form an oil-tight sealed unit. The tank cover shall be grounded to the tank by an external strap. Cover band may be galvanized or stainless steel.

4.2.2 The transformer shall remain effectively sealed for a top oil temperature range of -5°C to +105°C. Transformers shall be equipped for two position pole or platform mounting. Mounting hardware shall be constructed and positioned in accordance with the latest ANSI revision.

4.2.3 Transformer shall have a 10KV, 8.4MCOV lightning arrester mounted on the tank in accordance with the latest ANSI standard.

4.2.4 Transformer shall include appropriate weak link primary fuse and appropriate secondary over-load and short circuit protection to include a secondary breaker handle mounted on the outside of the tank in accordance with the latest ANSI standards.

4.2.5 Lifting lugs shall be provided to allow the safe handling and lifting of the complete transformer unit when filled with insulating fluid.

- 4.2.6 All exterior bolts, nuts clamps and other non-painted hardware shall be of non-corrosive material.
- 4.2.7 The tank finish shall be of high grade paints employing a controlled baking process that will insure a protective coating which is exceptionally serviceable in an area of direct sunlight. The color shall be light gray, No.70, Munsellf Notation 5BG 7.0/0.4 as specified in ANSI Z55.1.
- 4.2.8 The transformer KVA rating, the primary voltage and the secondary voltage shall be clearly and permanently marked in black Arabic numerals 2-½" high on the front of the tank below the secondary bushings and on the back of transformer.

#### 4.3 Bushings

- 4.3.1 The transformer shall have one cover mounted porcelain high voltage bushing with electrical characteristics as required in paragraph 6.1.1.1 and listed in table 6 of ANSI C57.12.20 latest revision for 95KV insulation class.
- 4.3.2 The low voltage bushings shall have electrical characteristics in accordance with ANSI C57.12.20, latest revision. Low voltage bushings shall be of the side wall type and shall be mounted singly, constructed of porcelain. The X<sub>2</sub> terminal shall be bussed to the tank by removable copper strap.

#### 4.4 Di-electric Oil

- 4.4.1 Transformers shall be furnished complete with non-PCB mineral oil. A blue decal (approximately 2-½" x 3-½") with white letters shall be placed on the tank. The wording shall be "Filled with Non-PCB mineral oil" or "Filled with Non-PCB mineral oil at time of manufacture".
- 4.4.2 The vendor shall certify that the liquid di-electric or any component of the liquid di-electric is not listed in the Federal Register, Vol. 45, No. 98, issued May 19, 1980, 40FR, Part 461, Appendix VIII, Subpart D - Identification and Listing of Hazardous Waste.

#### 4.5 Impedance

The percent impedance (%IZ) as measured at rated voltage shall be between 1.5 and 3.

#### 4.6 Tap Changer

- 4.6.1 Transformers shall be provided with an externally operated no load tap changer having two 2-½% steps above and two 2-½% steps below the rated voltage. The tap changer will be set at the factory to the nominal tap. The switch handle shall be non-corrosive with a fastening device to prevent inadvertent operation.
- 4.6.2 Tap Changer shall be clearly labeled to reflect that the transformer must be de-energized before operating the tap changer as required in Section 6.2.1 of ANSI C57.12.20.

#### 4.7 Pressure Relief

- 4.7.1 The transformer shall be equipped with a self-actuating replaceable pressure relief device to relieve slow pressure build up that will automatically vent when pressure reaches  $10 \pm 2$  PSIG and release when pressure falls to 6 PSIG.
- 4.7.2 The body of the valve shall be brass, bronze, or stainless steel.
- 4.7.3 The venting port, on the outward side of the valve head seat shall be protected to prevent the entry of dust, moisture, and insects before and after the valve has actuated.
- 4.7.4 The device shall not have an indicating "pop-off" cover.
- 4.7.5 The device shall have a pull ring for manual or hot stick activation.

#### 5.0 QUALITY ASSURANCE

Transformers shall be tested in accordance with ANSI latest revision. Also, the impulse tests specified in ANSI shall be made on all transformers.

#### 6.0 CERTIFIED TEST REPORTS AND DATA REQUIRED

**At the time of delivery, the vendor shall provide a certified test report for all transformers in a given order, indicating the actual loss data for each unit delivered. The certified test reports shall be mailed directly to:**

**City of Gallup, Electric Department  
Attn : Richard Matzke, Electric Utility Director  
PO Box 1270  
Gallup NM 87305**

#### 7.0 BID EVALUATION

- 7.1 The vendor shall state all exceptions to these specifications. If no exceptions, vendor shall so state. Vendors shall submit as part of the bid an outline drawing showing the physical dimensions, weight, and location of accessories, nameplate, and connection diagrams. Bids received without drawings or loss data will be non-conforming and will not be considered.
- 7.2 All bidders shall supply No Load, Load and Total losses reported in watts with the bid documents. No load losses shall be reported at 20 °C. The value for load losses shall be corrected to 85 °C.

#### 8.0 DEVIATIONS TO SPECIFICATIONS

Vendors quoting transformers that deviate in any way from the City of Gallup specification shall indicate such by letter. This data shall be sent to the City of Gallup at P.O. Box 1270, Gallup, NM 87305. Attention: Frances Rodriguez Purchasing Director or Richard Matzke, Electrical Utility Director. The City of Gallup will evaluate the deviation(s) and determine in writing whether the deviation(s) are accepted or declined.

#### 9.0 PACKAGING AND SHIPPING

Each transformer shall be fastened to skids or to a two way entry, disposable pallet of the vendors own design. Pallets must be of such dimensions as to provide two inch (2") clearance of the transformer at its widest outside measurements, on all four sides. Skids or pallets must provide a minimum of 3-½ inches of fork under clearance.

**10.0 WARRANTY**

The vendor shall guarantee the transformers for a period of 18 months from date of delivery or 12 months from date of installation that all equipment covered by this agreement is to be free from defects in material and workmanship. Any defective units discovered or identified during this period will be replaced or repaired by the vendor at no cost to the City of Gallup.

**11.0 APPROVED MANUFACTURERS**

Cooper  
ABB  
General Electric  
Ermco  
Howard Industries

**Specification for  
Single Phase Mini-Pad Mount  
Transformers**

**E-6118** (Item 8)

**E-6119** (Item 9)

**E-6121** (Item 10)

**E-6122** (not on bid)

**E-6123** (Item 11)

**E-6126** (not on bid)

## **SPECIFICATIONS FOR SINGLE PHASE, DEAD FRONT PAD MOUNTED DISTRIBUTION TRANSFORMER**

### **1.0 SCOPE AND APPLICATION**

This specification is applicable for the mechanical and electrical requirements for single phase dead front pad mounted, 60 Hertz, oil-filled, self-cooled distribution transformers in various KVA rating for use on an underground electric distribution system.

### **2.0 COMPLIANCE WITH STANDARDS**

All transformers shall be designed, manufactured and tested to meet all the requirements specified within the latest revision of the following ANSI and NEMA standards to include the *2013 Department of Energy standards*. In the event that any of the referenced standards are shown to be contradictory, then the most stringent standard shall apply.

ANSI C57.12.00

ANSI C57.12.25

ANSI C57.12.28

ANSI C57.12.90

ANSI/IEEE 386

### **3.0 RATINGS**

- 3.1 All ratings shall be based on and not exceed a 65 °C winding temperature rise. The high voltage basic impulse insulation level (BIL) shall be 95 KV.
- 3.2 High Voltage: 13800/7970 Grounded WYE with no taps.
- 3.3 Low Voltage: 240/120
- 3.4 Size (KVA): 15, 25, 50, 75, 100, 167 as requested.

### **4.0 DESIGN AND CONSTRUCTION**

- 4.1 The mini-pad type transformers shall be assembled as an integral unit, tamper resistant and weatherproof for mounting on a pad.
- 4.2 Tank Construction, Accessories, and Finish
  - 4.2.1 The transformer shall be of all welded steel construction. All exterior welds are to be full welds. Spot, tack, or skip welds are not acceptable for attaching hinges, brackets, etc. There shall be no exposed screws, bolts or other fastening devices, other than a pentahead locking bolt, which are externally removable. The top shall be pitched to facilitate water run off.
  - 4.2.2 Lifting provisions of adequate strength shall be arranged to provide for a suitable lift of complete transformer assembly when filled with oil.

- 4.2.3 Unlocking the padlock and disengaging the pentahead bolt shall permit access to both the high and low voltage terminations when the compartment door is opened.

In addition to the regular locking provisions, all access doors shall be secured by a recessed, captive, pentahead bolt which threads into a nut with a blind hole. The dimensions of the pentahead bolt and non-rotating recess shall comply with "preferred method", Figure 11 of ANSI C57.12.26-1987.

- 4.2.4 The base of the assembly shall be provided with a suitable sill to permit anchoring the unit to a pad from within the cable terminating compartments.
- 4.2.5 The tank finish shall be of high grade paints employing a controlled baking process that will insure a protective coating which is exceptionally serviceable in an area of direct sunlight. The color shall be olive green with a minimum thickness of 2.5 mils.
- 4.2.6 The transformer KVA rating, the primary voltage and the secondary voltage shall be clearly and permanently marked in yellow numerals on the front of the transformer.
- 4.2.7 The approximate total weight in pounds shall be shown on the nameplate; the nameplate shall include the month and year of manufacture.
- 4.2.8 The exterior dimensions shall not exceed the following including cooling fins:

<u>KVA</u>	<u>Height</u>	<u>Width</u>	<u>Depth</u>
10-50	24"	34"	34"
75-167	32"	36"	42"

#### 4.3 Bushings and Terminals

- 4.3.1 The primary terminal arrangement shall be as specified in ANSI C57.12.25 for loop-feed operation with dimensions as specified in figure 2(a) for a high voltage rating of 8.3KV. The identification of the high voltage connector and low voltage terminal are required. The numbering shall be as shown on the equipment nameplate and shall comply with ANSI C57.12.25. The X<sub>o</sub> terminal shall be Bussed to the transformer ground pad with flexible copper strap.
- 4.3.2 The transformer shall be supplied with 15KV class removable clamped stud bushing wells (Cooper 2603973B01) and replaceable load break type bushing inserts (Cooper 2604797B01M). Studs shall be provided in the wells. Equivalent Elastimold or General Electric bushing wells and load break bushing inserts may be substituted.
- 4.3.3 The internal risers to the bushings shall allow replacement of bushing wells from the exterior of the tank.

- 4.3.4 The bushing shall be oriented so that the elbows can be operated with a hot stick.
  - 4.3.5 The minimum current carrying capability of components for the loop primary cable system shall be 200 amperes (continuous) and 10,000 amperes symmetrical (momentary).
  - 4.3.6 The low voltage terminals shall be externally clamped with leads of sufficient length to insure that all bushings can be changed without opening the tank. Terminals shall be threaded copper studs .0625-11 UNC-2A 1.25".
  - 4.3.7 The low voltage neutral shall be a fully insulated bushing. A ground pad shall be provided on the outer surface of the tank. A removable ground strap suitably sized for the rating of the transformer shall be provided and connected between the low voltage neutral bushing and the transformer tank ground.
- 4.4 Overcurrent Protection
- The primary fuses shall be oil-immersed, externally replaceable Cooper bayonet type. The fuse links shall be dual sensing Bay-O-Net equivalent to Cooper number 358C in series with coordinated oil-immersion isolation links which shall be equivalent to Cooper 1861A. See Table 1 for Cooper fuse designation. The fuse holder shall be located so the eye will not touch the lid in any position. Stops to prevent rotation of the eye to the twelve o'clock position are not acceptable. An angled drip shield, extending not more than 5" from the transformer shall be provided under the bayonet fuses. No oil should drip on the bushing/elbow assembly.
- 4.5 High and Low Voltage Compartment
- 4.5.1 The high and low voltage compartments shall comply with ANSI C57.12.25 latest revision.
  - 4.5.2 The high voltage portion of the compartment shall contain the high voltage bushing wells and be provided with cable accessory parking stand.
- 4.6 Di-electric Oil
- 4.6.1 Transformers shall be furnished complete with non-PCB mineral oil. A blue decal (approximately 2-½" x 3-½") with white letters shall be placed on the tank. The wording shall be "Filled with Non-PCB mineral oil" or "Filled with Non-PCB mineral oil at time of manufacture".
  - 4.6.2 The vendor shall certify that the liquid di-electric or any component of the liquid di-electric is not listed in the latest revision of Federal Register, Vol. 45, No. 98, issued, 40FR, Part 461, Appendix VIII, Subpart D - Identification and Listing of Hazardous Waste.
- 4.7 Impedance
- The percent impedance (%IZ) as measured at rated voltage shall be between 1.5 and 3.

4.8 Pressure Relief

- 4.8.1 The transformer shall be equipped with a self-actuating replaceable pressure relief device to relieve slow pressure build up that will automatically vent when pressure reaches  $10 \pm 2$  PSIG and release when pressure falls to 6 PSIG.
- 4.8.2 The body of the valve shall be brass, bronze, or stainless steel.
- 4.8.3 The venting port, on the outward side of the valve head seat shall be protected to prevent the entry of dust, moisture, and insects before and after the valve has actuated.
- 4.8.4 The device shall not have an indicating "pop-off" cover.
- 4.8.5 The device shall have a pull ring for manual or hot stick activation.

4.10 Safety Labels

Bilingual English/Spanish WARNING and DANGER labels shall be applied in accordance with NEMA standards Publication Number 260 latest revision and shall be attached to the individual cabinets of pad mount transformers as follows:

- 4.10.1 A label "DANGER HIGH VOLTAGE" shall be mounted inside of the compartment and centered on the face of the transformer so that it is visible when the door is in the open position.
- 4.10.2 An 8"X10" non-fading and non peeling material WARNING label "DANGER HIGH VOLTAGE" shall be mounted on the outside of the latched door and centered on the door

**5.0 QUALITY ASSURANCE**

Transformers shall be tested in accordance with Paragraph 4.2 and Section 5 of ANSI C57.12.25, latest revision. Also, the impulse tests specified in ANSI C57.12.00 shall be made on all transformers.

**6.0 CERTIFIED TEST REPORTS AND DATA REQUIRED**

**At the time of delivery, the vendor shall provide a certified test report for all transformers in a given order, indicating the actual loss data for each unit delivered. The certified test reports shall be mailed directly to:**

**City of Gallup, Electric Department  
Attn : Richard Matzke, Electric Utility Director  
PO Box 1270  
Gallup NM 87305**

**7.0 BID EVALUATION**

- 7.1 The vendor shall state all exceptions to these specifications. If no exceptions, vendor shall so state. Vendors shall submit as part of the bid an outline drawing showing the physical dimensions, weight, and location of accessories, nameplate, and connection diagrams. Bids received without drawings or loss data will be non-conforming and will not be considered.
- 7.2 All bidders shall supply No Load, Load and Total losses reported in watts with the bid documents. No load losses shall be reported at 20 °C. The value for load losses shall be corrected to 85 °C.

**8.0 DEVIATIONS TO SPECIFICATIONS**

Vendors quoting transformers that deviate in any way from the City of Gallup specification shall indicate such by letter. This data shall be sent to the City of Gallup at P.O. Box 1270, Gallup, NM 87305. Attention Debbie Soto Purchasing Agent or Peter Gonzales, Electrical Superintendent. The City of Gallup will evaluate the deviation(s) and determine in writing whether the deviation(s) are accepted or declined.

**9.0 PACKAGING AND SHIPPING**

Each transformer shall be fastened to skids or to a two way entry, disposable pallet of the vendors own design. Pallets must be of such dimensions as to provide two inch (2") clearance of the transformer at its widest outside measurements, on all four sides. Skids or pallets must provide a minimum of 3-½ inches of fork under clearance.

**10.0 WARRANTY**

The vendor shall guarantee the transformers for a period of 18 months from date of delivery or 12 months from date of installation that all equipment covered by this agreement is to be free from defects in material and workmanship. Any defective units discovered or identified during this period will be replaced or repaired by the vendor at no cost to the Gallup Joint Utilities.

**11.0 APPROVED MANUFACTURERS**

- Cooper
- ABB
- General Electric
- Ermco
- Howard Industries

**TABLE 1**  
**THREE PHASE PADMOUNT TRANSFORMERS FUSE AND ISOLATION LINKS SIZES**  
**(COOPER PART NUMBERS INDICATED)**

<u>KVA RATINGS</u>	<u>BAY-O-NET FUSE</u>	<u>ISOLATION LINK</u>
10	4000358C03	3001861A01M
15	4000358C03	3001861A01M
25	4000358C05	3001861A02M
50	4000358C08	3001861A03M
75	4000358C10	3001861A05M
100	4000358C10	3001861A05M
167	4000358C12	3001861A06M

**Specification for  
Three Phase Pad Mount  
Wye Transformers  
Stock Numbers**

**E-6130** (Item 12)  
**E-6133** (Item 13)  
**E-6134** (Item 14)  
**E-6135** (Item 15)  
**E-6136** (Item 16)  
**E-6140** (Item 17)  
**E-6142** (not on bid)  
**E-6143** (not on bid)  
**E-6153** (not on bid)  
**E-6155** (not on bid)

## **SPECIFICATIONS FOR THREE PHASE PAD MOUNTED WYE DISTRIBUTION TRANSFORMER**

### **1.0 SCOPE AND APPLICATION**

This specification is applicable for the mechanical and electrical requirements for loop feed three phase dead front pad mounted, 60 Hertz, oil-filled, self-cooled distribution transformers in various KVA rating for use on an underground electric distribution system.

### **2.0 COMPLIANCE WITH STANDARDS**

All transformers shall be designed, manufactured and tested to meet all the requirements specified within the latest revision of the following ANSI and NEMA standards to include the *2013 Department of Energy standards*. In the event that any of the referenced standards are shown to be contradictory, then the most stringent standard shall apply.

ANSI C57.12.00 General requirements for liquid-immersed distribution, power and regulation transformers

ANSI C57.12.26 Standards for pad mount compartmental-type transformers

ANSI C57.12.28 Pad-mounted equipment enclosure integrity

ANSI C57.12.90 Test code for liquid-immersed distribution, power and regulation transformers and guide for short-circuit testing of distribution and power transformers

ANSI 386 IEEE Standards for Separable Insulated Connector for Power Distribution Systems above 600V

### **3.0 RATINGS**

3.1 All ratings shall be based on and not exceed a 65 °C winding temperature rise. The high voltage basic impulse insulation level (BIL) shall be 95 KV, low voltage BIL shall be minimum of 30 KV.

3.2 High Voltage: 13800/7970 Grounded WYE with no taps.

3.3 Low Voltage: 208Y/120, 480Y/277 as requested in bid.

3.4 Size (KVA): 75, 150, 225, 300, 500, 750, 1000, 1500 as specified.

### **4.0 DESIGN AND CONSTRUCTION**

4.1 The pad mounted transformers shall consist of the transformer tank and high and low voltage terminating compartments. The transformer tank and high and low voltage terminating compartments shall be assembled as an integral unit, tamper resistant and weatherproof for mounting on a pad.

4.2 Tank Construction, Accessories, and Finish

4.2.1 The transformer shall be of all welded steel construction. All exterior welds are to be full welds. Spot, tack, or skip welds are not acceptable for attaching hinges, brackets, etc. There shall be no exposed screws, bolts or other fastening devices, other than a pentahead locking bolt, which are externally removable. The top shall be pitched to facilitate water runoff.

4.2.2 Lifting provisions of adequate strength shall be arranged to provide for a suitable lift of complete transformer assembly when filled with oil.

4.2.3 Unlocking the padlock and disengaging the pentahead bolt shall permit access to both the high and low voltage terminations when the compartment doors are opened. There shall be a steel barrier between the high voltage and low voltage compartments.

In addition to the regular locking provisions, all access doors shall be secured by a recessed, captive, pentahead bolt which threads into a nut with a blind hole. The dimensions of the pentahead bolt and non-rotating recess shall comply with "preferred method", Figure 11 of ANSI C57.12.26-1987. Each door shall be secured with a separate pentahead bolt.

4.2.4 Each latched door shall be latched at a minimum of three points. In addition to the three point latching a pentahead bolt shall be coordinated with the latch and padlock to prevent latching and insertion of the padlock into the hasp until the bolt head is essentially seated.

4.2.5 The tank finish shall be of high grade paints employing a controlled baking process that will insure a protective coating which is exceptionally serviceable in an area of direct sunlight. The color shall be olive green with a minimum thickness of 2.5 mils.

4.2.6 The transformer KVA rating, the primary voltage and the secondary voltage shall be clearly and permanently marked in yellow numerals on the front of the transformer.

4.2.7 The approximate total weight in pounds shall be shown on the nameplate, the nameplate shall include the month and year of manufacture, impedance and X/R ratio.

4.2.8 The exterior dimensions shall not exceed the following including cooling fins:

<u>KVA</u>	<u>Height</u>	<u>Width</u>	<u>Depth</u>	<u>Max Primary</u>	<u>Max. Secondary</u>
				<u>Bushing Height</u>	<u>Bushing Height</u>
75-150	55"	66"	62"	30"	35"
225-500	55"	74"	78"	30"	35"
750	55"	80"	84"	40"	43"
1000	70"	85"	84"	40"	55"

#### 4.3 Bushings and Terminals

- 4.3.1 The primary terminal arrangement shall be as specified in ANSI C57.12.26 for loop-feed operation with dimensions not to exceed those shown in figures 2 & 3. Load-break bushing wells will be oriented so that the elbows can be operated with a hot stick. The  $X_0$  terminal shall be bussed to the transformer ground pad with flexible copper strap.
- 4.3.2 The transformer shall be supplied with 15KV class removable clamped stud bushing wells and replaceable load break type bushing inserts. Studs shall be provided in the wells. Equivalent Elastimold or General Electric bushing wells and load break bushing inserts may be substituted.
- 4.3.3 The internal risers to the bushings shall allow replacement of bushing wells from the exterior of the tank.
- 4.3.4 The minimum current carrying capability of components for the loop primary cable system shall be 200 amperes (continuous) and 10,000 amperes symmetrical (momentary).
- 4.3.5 The low voltage terminals shall be arranged as per ANSI C57.12.26 figure 3&4 and shall be live front, externally clamped porcelain or polyester glass bushings with blade type terminals for vertical take-off (ANSI C57.12.22).
- 4.3.6 The low voltage neutral shall be a fully insulated bushing. A ground pad shall be provided on the outer surface of the tank. A removable ground strap suitably sized for the rating of the transformer shall be provided and connected between the low voltage neutral bushing and the ground pad.

#### 4.4 Overcurrent Protection

The primary fuses shall be oil-immersed, externally replaceable Cooper bayonet type. The fuse links shall be dual sensing Bay-O-Net equivalent in series with isolation link. The fuse holder shall be located so the eye will not touch the lid in any position. Stops to prevent rotation of the eye to the twelve o'clock position are not acceptable. An angled drip shield, extending not more than 5" from the transformer shall be provided under the bayonet fuses. No oil should drip on the bushing/elbow assembly.

#### 4.5 High and Low Voltage Compartment

- 4.5.1 The high and low voltage compartments shall comply with ANSI C57.12.26 latest revision.
- 4.5.2 The high voltage portion of the compartment shall contain the high voltage bushing wells and be provided with 6 cable accessory parking stands.

4.6 Di-electric Oil

4.6.1 Transformers shall be furnished complete with oil which does not contain PCB's. A blue decal (approximately 2-½" x 3-½") with white letters shall be placed on the tank. The wording shall be "Filled with Non-PCB mineral oil" or "Filled with Non-PCB mineral oil at time of manufacture."

4.6.2 The vendor shall certify that the liquid di-electric or any component of the liquid di-electric is not listed in the latest and greatest Federal Register, Vol. 45, No. 98, issued May 19, 1980, 40FR, Part 461, Appendix VIII, Subpart D - Identification and Listing of Hazardous Waste.

4.7 Impedance

The percent impedance (%IZ) as measured at rated voltage connection, shall be as follows:

KVA	Impedance
75	1.10-5.75
150 - 300	1.4 – 5.75
500	1.70 – 5.75
750 - 1500	5.75

4.8 Pressure Relief

4.8.1 The transformer shall be equipped with a self-actuating replaceable pressure relief device to relieve slow pressure build up that will automatically vent when pressure reaches  $10 \pm 2$  PSIG and release when pressure falls to 6 PSIG.

4.8.2 The body of the valve shall be brass, bronze, or stainless steel.

4.8.3 The venting port, on the outward side of the valve head seat shall be protected to prevent the entry of dust, moisture, and insects before and after the valve has actuated.

4.8.4 The device shall not have an indicating "pop-off" cover.

4.8.5 The device shall have a pull ring for manual or hot stick activation.

#### 4.9 Safety Labels

Bilingual English/Spanish WARNING and DANGER labels shall be applied in accordance with NEMA standards Publication Number 260 latest revision and shall be attached to the individual cabinets of pad mount transformers as follows:

4.9.1 A label "DANGER HIGH VOLTAGE" shall be mounted inside of the compartment and centered on the face of the transformer so that it is visible when the door is in the open position.

4.9.2 An 8"X10" non-fading and non peeling material WARNING label "DANGER HIGH VOLTAGE" shall be mounted on the outside of the latched door and centered on the door

#### 5.0 QUALITY ASSURANCE

Transformers shall be tested in accordance with Paragraph 4.2 and Section 5 of ANSI C57.12.26, latest revision. Also, the impulse tests specified in ANSI C57.12.00 shall be made on all transformers.

#### 6.0 CERTIFIED TEST REPORTS AND DATA REQUIRED

**At the time of delivery, the vendor shall provide a certified test report for all transformers in a given order, indicating the actual loss data for each unit delivered. The certified test reports shall be mailed directly to:**

***City of Gallup, Electric Department  
Attn: Richard Matzke, Electric Utility Director  
PO Box 1270  
Gallup NM 87305***

#### 7.0 BID EVALUATION

7.1 The vendor shall state all exceptions to these specifications. If no exceptions, vendor shall so state. Vendors shall submit as part of the bid an outline drawing showing the physical dimensions, weight, and location of accessories, nameplate, and connection diagrams. Bids received without drawings or loss data will be non-conforming and will not be considered.

7.2 All bidders shall supply No Load, Load and Total losses reported in watts with the bid documents. No load losses shall be reported at 20 °C. The value for load losses shall be corrected to 85 °C.

#### 8.0 DEVIATIONS TO SPECIFICATIONS

Vendors quoting transformers that deviate in any way from the City of Gallup specification shall indicate such by letter. This data shall be sent to the City of Gallup at P.O. Box 1270, Gallup, NM 87305. Attention Frances Rodriguez Purchasing Director or Richard Matzke, Electric Utility Director. The City of Gallup will evaluate the deviation(s) and determine in writing whether the deviation(s) are accepted or declined.

**9.0 PACKAGING AND SHIPPING**

Each transformer shall be fastened to skids or to a two way entry, disposable pallet of the vendors own design. Pallets must be of such dimensions as to provide two inch (2") clearance of the transformer at its widest outside measurements, on all four sides. Skids or pallets must provide a minimum of 3-½ inches of fork under clearance.

**10.0 WARRANTY**

The vendor shall guarantee the transformers for a period of 18 months from date of delivery or 12 months from date of installation that all equipment covered by this agreement is to be free from defects in material and workmanship. Any defective units discovered or identified during this period will be replaced or repaired by the vendor at no cost to the City of Gallup.

**11.0 APPROVED MANUFACTURERS**

Cooper	ABB
General Electric	Ermco
Howard	

**TABLE 1**

**THREE PHASE PADMOUNT TRANSFORMERS BAY-O-NET AND ISOLATION LINK SIZES**

**(COOPER PART NUMBERS INDICATED)**

<u>KVA RATINGS</u>	<u>BAY-O-NET FUSE</u>	<u>ISOLATION LINK</u>
75	4000358C05	3001861A02M
150	4000358C08	3001861A03M
225	4000358C10	3001861A05M
300	4000358C10	3001861A05M
500	4000358C12	3001861A06M
750	4000358C14	3001861A07M
1000	4000358C14	3001861A07M
1500	4000358C18	3001861A07M

**Specification for  
Three Phase Pad Mount  
Delta Transformers  
Stock Numbers**

**E-6144** (Item 18)

**E-6154** (not on bid)

**E-6156** (Item 19)

## **SPECIFICATIONS FOR THREE PHASE PAD MOUNTED DELTA DISTRIBUTION TRANSFORMER**

### **1.0 SCOPE AND APPLICATION**

This specification is applicable for the mechanical and electrical requirements for three phase dead front pad mounted, 60 Hertz, oil-filled, self-cooled distribution transformers in various KVA rating for use on an underground electric distribution system.

### **2.0 COMPLIANCE WITH STANDARDS**

All transformers shall be designed, manufactured and tested to meet all the requirements specified within the latest revision of the following ANSI and NEMA standards to include the *2013 Department of Energy standards*. In the event that any of the referenced standards are shown to be contradictory, then the most stringent standard shall apply.

ANSI C57.12.00 General requirements for liquid-immersed distribution, power and regulation transformers

ANSI C57.12.26 Standards for pad mount compartmental-type transformers

ANSI C57.12.28 Pad-mounted equipment enclosure integrity

ANSI C57.12.90 Test code for liquid-immersed distribution, power and regulation transformers and guide for short-circuit testing of distribution and power transformers

ANSI 386 IEEE Standard for Separable Insulated Connector for Power Distribution Systems above 600V

### **3.0 RATINGS**

3.1 All ratings shall be based on and not exceed a 65 °C winding temperature rise. The high voltage basic impulse insulation level (BIL) shall be 95 KV, low voltage BIL shall be 60 KV.

3.2 High Voltage: 13800/7970 Grounded WYE with 2-2½ % taps above and 2-2½ % taps below nominal.

3.3 Low Voltage: 2400, 4160, Delta as requested in bid.

3.4 Size (KVA): 300, 500, 1500 as specified.

### **4.0 DESIGN AND CONSTRUCTION**

4.1 The pad mounted transformers shall consist of the transformer tank and high and low voltage terminating compartments. The transformer tank and high and low voltage terminating compartments shall be assembled as an integral unit, tamper resistant and weatherproof for mounting on a pad.

4.2 Tank Construction, Accessories, and Finish

4.2.1 The transformer shall be of all welded steel construction. All exterior welds are to be full welds. Spot, tack, or skip welds are not acceptable for attaching hinges, brackets, etc. There shall be no exposed screws, bolts or other fastening devices, other than a pentahead locking bolt, which are externally removable. The top shall be pitched to facilitate water runoff.

4.2.2 Lifting provisions of adequate strength shall be arranged to provide for a suitable lift of complete transformer assembly when filled with oil.

4.2.3 Unlocking the padlock and disengaging the pentahead bolt shall permit access to both the high and low voltage terminations when the compartment doors are opened. There shall be a steel barrier between the high voltage and low voltage compartments.

In addition to the regular locking provisions, all access doors shall be secured by a recessed, captive, pentahead bolt which threads into a nut with a blind hole. The dimensions of the pentahead bolt and non-rotating recess shall comply with "preferred method", Figure 11 of ANSI C57.12.26-1987. Each door shall be secured with a separate pentahead bolt.

4.2.4 Each latched door shall be latched at a minimum of three points. In addition to the three point latching a pentahead bolt shall be coordinated with the latch and padlock to prevent latching and insertion of the padlock into the hasp until the bolt head is essentially seated.

4.2.5 The tank finish shall be of high grade paints employing a controlled baking process that will insure a protective coating which is exceptionally serviceable in an area of direct sunlight. The color shall be olive green with a minimum thickness of 2.5 mils.

4.2.6 The transformer KVA rating, the primary voltage and the secondary voltage shall be clearly and permanently marked in yellow numerals on the front of the transformer.

4.2.7 The approximate total weight in pounds shall be shown on the name plate, the nameplate shall include the month and year of manufacture.

4.2.8 The exterior dimensions shall not exceed the following including cooling fins:

<u>KVA</u>	<u>Height</u>	<u>Width</u>	<u>Depth</u>	<u>Max Primary</u>	<u>Max. Secondary</u>
				<u>Bushing Height</u>	<u>Bushing Height</u>
300-500	55"	74"	78"	30"	35"
1500	70"	85"	84"	40"	55"

#### 4.3 Bushings and Terminals

- 4.3.1 The primary terminal arrangement shall be as specified in ANSI C57.12.26 for loop-feed operation with dimensions not to exceed those shown in figures 2 & 3. Load-break bushing wells will be oriented so that the elbows can be operated with a hot stick. The  $X_0$  terminal shall be bussed to the transformer ground pad with flexible copper strap.
- 4.3.2 The transformer shall be supplied with 15KV class removable clamped stud bushing wells and replaceable load break type bushing inserts. Studs shall be provided in the wells. Equivalent Elastimold or General Electric bushing wells and load break bushing inserts may be substituted.
- 4.3.3 The internal risers to the bushings shall allow replacement of bushing wells from the exterior of the tank.
- 4.3.4 The minimum current carrying capability of components for the loop primary cable system shall be 200 amperes (continuous) and 10,000 amperes symmetrical (momentary).
- 4.3.5 The low voltage terminals shall be arranged as per ANSI C57.12.26 figure 3&4 and shall be live front, externally clamped porcelain or polyester glass bushings with blade type terminals for vertical take-off (ANSI C57.12.22).

#### 4.4 Overcurrent Protection

The primary fuses shall be oil-immersed, externally replaceable Cooper bayonet type. The fuse links shall be dual sensing Bay-O-Net equivalent in series with isolation link. The fuse holder shall be located so the eye will not touch the lid in any position. Stops to prevent rotation of the eye to the twelve o'clock position are not acceptable. An angled drip shield, extending not more than 5" from the transformer shall be provided under the bayonet fuses. No oil should drip on the bushing/elbow assembly.

#### 4.5 High and Low Voltage Compartment

- 4.5.1 The high and low voltage compartments shall comply with ANSI C57.12.26 latest revision.
- 4.5.2 The high voltage portion of the compartment shall contain the high voltage bushing wells and be provided with 6 cable accessory parking stands.

#### 4.6 Di-electric Oil

- 4.6.1 Transformers shall be furnished complete with oil which does not contain PCB's. A blue decal (approximately 2-½" x 3-½") with white letters shall be placed on the tank. The wording shall be "Filled with Non-PCB mineral oil" or "Filled with Non-PCB mineral oil at time of manufacture."

4.6.2 The vendor shall certify that the liquid di-electric or any component of the liquid di-electric is not listed in the latest and greatest Federal Register, Vol. 45, No. 98, issued May 19, 1980, 40FR, Part 461, Appendix VIII, Subpart D - Identification and Listing of Hazardous Waste.

4.7 Impedance

The percent impedance (%IZ) as measured at rated voltage connection, shall be as follows:

KVA	Impedance
300	1.4 – 5.00
500	1.5 – 5.75
1500	5.75

4.8 Tap Changer

Transformers shall be provided with an externally operated "no load" tap changer having two 2-½% steps above and two 2-½% steps below the rated voltage. The tap changer will be set at the factory to the nominal tap. The switch handle shall be non-corrosive with a fastening device to prevent inadvertent operation. Switches that must not be operated while energized shall have a warning sign to this effect near the switch.

4.9 Pressure Relief

4.9.1 The transformer shall be equipped with a self-actuating replaceable pressure relief device to relieve slow pressure build up that will automatically vent when pressure reaches  $10 \pm 2$  PSIG and release when pressure falls to 6 PSIG.

4.9.2 The body of the valve shall be brass, bronze, or stainless steel.

4.9.3 The venting port, on the outward side of the valve head seat shall be protected to prevent the entry of dust, moisture, and insects before and after the valve has actuated.

4.9.4 The device shall not have an indicating "pop-off" cover.

4.9.5 The device shall have a pull ring for manual or hot stick activation.

4.10 Safety Labels

Bilingual English/Spanish WARNING and DANGER labels shall be applied in accordance with NEMA standards Publication Number 260 latest revision and shall be attached to the individual cabinets of pad mount transformers as follows:

4.10.1 A label "DANGER HIGH VOLTAGE" shall be mounted inside of the compartment and centered on the face of the transformer so that it is visible when the door is in the open position.

4.10.2 An 8"X10" non-fading and non peeling material WARNING label "DANGER HIGH VOLTAGE" shall be mounted on the outside of the latched door and centered on the door

**5.0 QUALITY ASSURANCE**

Transformers shall be tested in accordance with Paragraph 4.2 and Section 5 of ANSI C57.12.26, latest revision. Also, the impulse tests specified in ANSI C57.12.00 shall be made on all transformers.

**6.0 CERTIFIED TEST REPORTS AND DATA REQUIRED**

**At the time of delivery, the vendor shall provide a certified test report for all transformers in a given order, indicating the actual loss data for each unit delivered. The certified test reports shall be mailed directly to:**

**City of Gallup, Electric Department  
Attn: Richard Matzke, Electric Utility Director  
PO Box 1270  
Gallup NM 87305**

**7.0 BID EVALUATION**

7.1 The vendor shall state all exceptions to these specifications. If no exceptions, vendor shall so state. Vendors shall submit as part of the bid an outline drawing showing the physical dimensions, weight, and location of accessories, nameplate, and connection diagrams. Bids received without drawings or loss data will be non-conforming and will not be considered.

7.2 All bidders shall supply No Load, Load and Total losses reported in watts with the bid documents. No load losses shall be reported at 20 °C. The value for load losses shall be corrected to 85 °C.

**8.0 DEVIATIONS TO SPECIFICATIONS**

Vendors quoting transformers that deviate in any way from the City of Gallup specification shall indicate such by letter. This data shall be sent to the City of Gallup at P.O. Box 1270, Gallup, NM 87305. Attention Frances Rodriguez Purchasing Director or Richard Matzke, Electric Utility Director. The City of Gallup will evaluate the deviation(s) and determine in writing whether the deviation(s) are accepted or declined.

**9.0 PACKAGING AND SHIPPING**

Each transformer shall be fastened to skids or to a two way entry, disposable pallet of the vendors own design. Pallets must be of such dimensions as to provide two inch (2") clearance of the transformer at its widest outside measurements, on all four sides. Skids or pallets must provide a minimum of 3-½ inches of fork under clearance.

**10.0 WARRANTY**

The vendor shall guarantee the transformers for a period of 18 months from date of delivery or 12 months from date of installation that all equipment covered by this agreement is to be free from defects in material and workmanship. Any defective units discovered or identified during this period will be replaced or repaired by the vendor at no cost to the Gallup Joint Utilities.

**11.0 APPROVED MANUFACTURERS**

\*Cooper      \*ABB      \*Howard      \*General Electric      \*Ermco

**TABLE 1**

**THREE PHASE PADMOUNT TRANSFORMERS BAY-O-NET AND ISOLATION LINK SIZES**

**(COOPER PART NUMBERS INDICATED)**

<b><u>KVA RATINGS</u></b>	<b><u>BAY-O-NET FUSE</u></b>	<b><u>ISOLATION LINK</u></b>
300	4000358C10	3001861A05M
500	4000358C12	3001861A06M
1500	4000358C18	3001861A07M