LOS ALAMOS COUNTY
PROCUREMENT DIVISION
101 Camino Entrada, Building 3, Los Alamos, New Mexico 87544
(505) 663-3507
Advertised: October 10, 2021
Closing Date: **October 28, 2021**
Mandatory/Non-Mandatory Pre-Proposal Conference: October 15, 2021

Request for Proposals ("RFP")
RFP Number: 22-36
RFP Name: Transformer and Field Services for El Vado Hydroelectric Plant

GENERAL INFORMATION

1. **RFP Submission Procedure Change. Due to the current COVID-19 (coronavirus) pandemic and Public Health Emergency declaration by the New Mexico Governor, until further notice, the following procedure is in effect: Proposals in response to this Requests for Proposals (RFP), may be submitted either in paper form, in a sealed envelope, or electronically by email in PDF format. All other requirements stated in the solicitation document remain unchanged and in effect.**

Only one of the following submission methods is required:

2. **ELECTRONIC SUBMISSION:** Emails should be addressed to: lacbid@lacnm.us. Subject line **must** contain the following information: **RESPONSE – RFP22-36 Transformer and Field Services for El Vado Hydroelectric Plant.**

   It is strongly recommended that a second, follow up email (without the proposal included or attached) be sent to Derrill Rodgers, Deputy Chief Purchasing Officer at derrill.rodgers@lacnm.us to confirm the Proposal was received.

   The body of the email must contain enough information for the identity of the Proposer to be clear, including company name, name of person sending the email, and contact information including email address and phone number.

   Only emails with proposals received in the lacbid@lacnm.us email box prior to **2:00 p.m. Mountain Time, October 28, 2021** will be reviewed.

   Proposals submitted by email will be opened only after the closing date and time stated in the solicitation document.

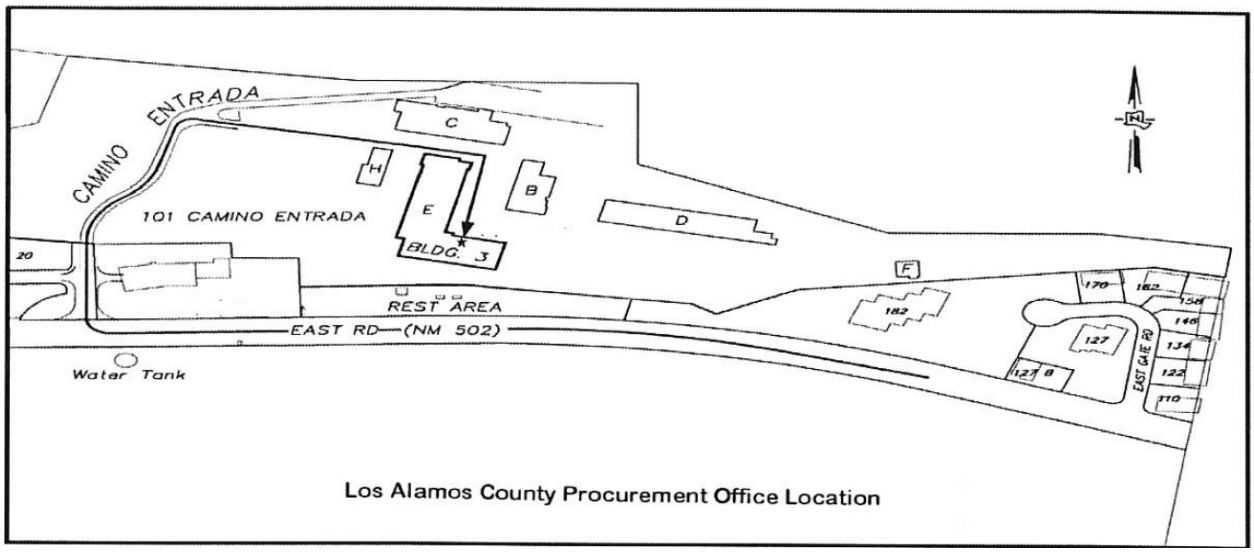
3. **PAPER FORM SUBMISSION:** Sealed proposals in one (1) clearly labeled unbound original, three (3) bound copies and one (1) USB flash drive or CD, will be accepted at the Office of the Chief Purchasing Officer, Procurement Division - 101 Camino Entrada, Building 3, Los Alamos, NM 87544, until **2:00 p.m. Mountain Time, October 28, 2021** for this solicitation. **Clearly mark the RFP Number and Name and Offeror on the outside of the sealed proposal, including outer envelope and/or shipping label.** The USB flash drive or CD should be clearly identified. It is the responsibility of the Offeror to assure that the information submitted in both its written response and the electronic version are consistent and accurate. If there is a discrepancy between what is provided on the paper document and the USB flash drive or CD, the written paper response shall govern.

4. Directions to Procurement office:

   - Camino Entrada (formerly known as Airport Basin) is 0.4 miles past East Gate Drive, just past East Entrance Park Rest Area.

- Road slopes downhill and curves to the right.

- Follow the signs to Building 3, the L-shaped building in the center of the complex.
- If you pass the Holiday Inn Express and the Airport, you've gone too far.



5. The Incorporated County of Los Alamos ("County") invites Proposals from all qualified respondents. No Proposal may be withdrawn after the scheduled closing time. Proposals will not be accepted after the scheduled closing time. **Please make note of the submittal requirements outlined in this solicitation.** Read and follow the instructions carefully. **Include the required documents provided in this RFP as part of your submittal packet.** Any misinterpretation or failure to comply with the submittal requirements could result in rejection of the proposal. Proposal preparation is at the Offeror's expense.
6. Any change(s) to the solicitation will be conveyed through the written addenda process. Read carefully and follow all instructions provided on any addendum, as well as the instructions provided in the original solicitation.
7. Any questions must be received in writing at least five (5) days prior to the date fixed for when proposals are due.
8. County reserves the right, at its sole discretion, to accept or reject any proposals; to waive any and all irregularities in any or all statements or proposals; to request additional information from any or all respondents; and to award a contract to the responsible Offeror whose proposal is most beneficial to County. While County intends to execute a contract for the services listed herein, nothing in this document shall be interpreted as binding County to enter into a contract with any Offeror or Proposer.
9. Bids and Proposals are Public Records. Pursuant to the New Mexico Inspection of Public Records Act, NMSA 1978, Chapter 14, Article 2, all materials submitted under this RFP/IFB shall be presumed and considered public records. Except to the extent any information may be protected by state or federal law, proposals shall be considered public documents and available for review and copying by the public.
10. Proposers/Offerors are informed that State law requires that all foreign corporations (NMSA 1978 §53-17-5) and limited liability corporations (NMSA 1978 §53-19-48) procure a certificate of authority to transact business in the state prior to transacting business in the state of New Mexico.

11. The Chief Purchasing Officer has determined a preference is applicable to this offer. A bidder or offeror must submit a written request for preference, with a copy of the state-issued preference certificate, with its proposal to qualify for this preference. Ref. County Code Section. 31-261(b) and Section13-1-21 NMSA 1978 et al..
12. A Non-Mandatory Pre-Bid Conference will be held via Microsoft Teams on **October 15, 2021** at 10:00 AM. A meeting link will be distributed via Addendum, please email derrill.rodgers@lacnm.us to confirm your intent to attend.
13. The terms Manufacturer, Seller, Supplier and Contractor are used interchangeably in this solicitation.
14. The terms County, Owner, Buyer and Purchaser are used interchangeably in this solicitation.

CONTACT INFORMATION

1. For project-specific information, contact Alfred Lopez, at alfred.lopez@lacnm.us; (505) 663-1838.
2. For procurement process information, contact Derrill Rodgers, Deputy Chief Purchasing Officer at derrill.rodgers@lacnm.us; (505) 663-3507.

NEED STATEMENT

This project is issued by and under the control of the Incorporated County of Los Alamos. The project is managed by the Department of Public Utilities. The County is seeking responses from qualified Offerors to supply a Transformer suitable for use at the El Vado Hydroelectric Plant.

BACKGROUND

The Incorporated City and County of Los Alamos ("County") is situated at the foot of the Jemez Mountains on the Pajarito Plateau with an elevation ranging from 6,200 feet to 9,200 feet. Two distinct communities, Los Alamos Town site and White Rock, each with its own visitor center, are home to ~18,000 people. Los Alamos is mostly known for the historic accomplishments of its largest employer, Los Alamos National Laboratory, and continues to gain notice for its vast scenic assets and recreational opportunities.

Visit the Los Alamos County website (www.losalamosnm.us) and the tourism website (www.visit.losalamos.com) for more information**.**

SCOPE OF SERVICES (or WORK)
The Awarded Offeror shall:

1. Furnish new 8200/10250 OA/FA KVA, 4.160kV Delta step up to 69kV Wye, 3 phase, 60Hz Substation Transformer.
2. Provide a baseline complete electrical testing profile (such as a Doble test) of the transformer.
3. Provide at minimum, a One (1) year manufacturer warranty for new transformer, beginning following installation of the transformer.
4. All requirements detailed in Exhibit "F" – Transformer Specification.
5. Delivery Shall be made to the El Vado Hydroelectric Plant, FOB Destination, see directions to the plant attached as Exhibit "G".

Projected Project dates are as follows:

Solicitation Advertised	October, 10, 2021
Non-Mandatory Pre-Bid Conference	October 15, 2021
Solicitation Closes	October 28, 2021
Present to BPU for Approval	November 17, 2021
Present to County Council for Approval	December 7, 2021
Desired Transformer Delivery	October 21, 2022

PROPOSAL REVIEW AND EVALUATION

Proposals shall be handled so as to prevent disclosure of the identity of any Offeror or the contents of any proposal to competing Offerors during the process of negotiation.

After the RFP has closed, Procurement Division staff prepares a register of proposals containing the name of each Offeror, the number of modifications received, if any, and a description sufficient to identify the item offered. The register of proposals is open to public inspection only after contract award. Procurement Division staff delivers the RFP submittals to the Evaluation Committee Chairperson. The Evaluation Committee reviews and evaluates the submittals. Interviews are only for the purpose of clarification, and may be used for adjusting the final score. Discussions may be conducted with responsible offerors who submit proposals determined to be reasonably likely to be selected for award for the purpose of clarification to ensure full understanding and conformation with solicitation requirements for the purpose of obtaining best and final offers.

The total evaluation score with or without the cost factor of each proposal received from a qualifying vendor shall be multiplied by 1.05. After application of the factor, the contract shall be awarded to the highest score. If one or more scores are equal, the same procedure shall be followed with respect to the next category of offerors listed, and the next, until an offer qualifies for award. The priority of categories of offers is as follows:(1) Local business; (2) Resident business.

The Evaluation Committee Chairperson forwards the final evaluation results to the Procurement Division. Award shall be made to the responsible Offeror whose proposal is determined in writing by the Evaluation Committee to be the most advantageous to the County, taking into consideration the evaluation criteria set forth in the solicitation.

AWARD OF SOLICITATION

Following award of the solicitation by County Council, the successful Offeror will be required to execute a contract with County in accordance with the terms and conditions set forth in the Services Agreement, a sample of which is attached as Exhibit “A.” Offeror may identify any exception or other requirements to the terms and provisions in the Services Agreement, along with proposed alternative language addressing the exception; County may, but is not required to, negotiate changes in contract terms and provisions. The Services Agreement as finally agreed upon must be in form and content acceptable to County.

OBLIGATIONS OF FEDERAL CONTRACTORS AND SUBCONTRACTORS; EQUAL OPPORTUNITY CLAUSES

Contractors and Subcontractor shall abide by the requirements of 41 CFR §§ 60-1.4, 60- 300.5 and 60-741. These regulations prohibit discrimination against qualified individuals based on their status as protected veterans or individuals with disabilities, and prohibit discrimination against all individuals based on their race, color, religion, sex, sexual orientation, gender identity, or national origin. Moreover, these regulations require that covered prime contractors and subcontractors take affirmative action to employ and advance in employment individuals without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, protected veteran status or disability.

Contractors and subcontractors agree to comply with all the provisions set forth in 29 CFR Part 471, Appendix A to Subpart A.

ILLEGAL ACTS

The Los Alamos County Procurement Code, Article 9, imposes remedies and penalties for its violation. In addition, New Mexico criminal statutes impose felony penalties for illegal bribes, gratuities, and kickbacks.

CERTIFICATION FORM REGARDING DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS

An Offeror shall complete the Certification Regarding Debarment, Suspension, and Other Responsibility Matters Form, attached as Exhibit "B," and submit with the proposal. This Form serves as a warrant of the vendor's responsibility, and may not necessarily preclude the vendor from consideration for award.

CAMPAIGN CONTRIBUTION DISCLOSURE FORM

A Campaign Contribution Disclosure Form is attached as Exhibit "C." The Offeror is requested to complete and submit with the proposal. If Form is not submitted with the proposal, upon award, Contractor must submit this form, in accordance with Chapter 81 of the laws of 2006 of the State of New Mexico.

VERIFICATION OF AUTHORIZED OFFEROR

A Verification of Authorized Offeror Form is attached as Exhibit "D." The Offeror is requested to complete and submit with the proposal. This Form provides County with the name and information of the authorized Officer who can obligate the selected firm in providing the services to Los Alamos County.

PROPOSAL FORMAT
Offerors shall submit a Proposal to the County in the format described below.

All proposals should be in 8.5X11-inch format. Proposals should be single-spaced. There is no page limit.

Proposals shall include a fully completed Appendix 1 to the transformer specification, and completed page 11 to the transformer specification, provided in Exhibit F. Proposals will be evaluated based on information provided by the vendor on Appendix 1 as follows:

1. 1.0 Cost Data
2. 2.0 Dates
3. 3.0 Rating and Performance Data
4. 4.0 Suitability of Proposed Transformer and related services and Warranty. (Complete Transformer Specification Page 11)

DOCUMENTS TO SUBMIT WITH PROPOSAL. Should include, but may not be limited to the following:

1. Exhibit "A": Sample Services Agreement with any deviations or exceptions identified in track changes.
2. Exhibit "B": Certification Regarding Debarment, Suspension, and Other Responsibility Matters – Primary Covered Transactions.
3. Exhibit "C": Campaign Contribution Disclosure Form
4. Exhibit "D": Verification of Authorized Offeror
5. Exhibit "E": Cost Summary Sheet
6. Exhibit "F": Transformer Specification, Offer Completed Pages 11-17.

PROPOSAL EVALUATION CRITERIA: As described and/or demonstrated in the RFP response.

	Criteria	Weighted Points
1	Cost - Specification Appendix 1, 1.0 Cost Data	**40**
2	Specification Appendix 1, 2.0 Dates	**10**
3	Specification Appendix 1, 4.0 Rating and Performance Data	**40**

4	Suitability of Proposed Transformer and related services and Warranty. (Complete Transformer Specification Page 11).	**10**
	Total Score	**100**

AGR22-XX

INCORPORATED COUNTY OF LOS ALAMOS
SERVICES AGREEMENT

This **SERVICES AGREEMENT** ("Agreement") is entered into by and between the **Incorporated County of Los Alamos**, an incorporated county of the State of New Mexico ("County"), and _____, a _____ corporation ("Contractor"), to be effective for all purposes _____, 20xx.

WHEREAS, the County Purchasing Officer determined in writing that the use of competitive sealed bidding was either not practical or not advantageous to County for procurement of the Services and County issued Request for Proposals No. 21-_____ (the "RFP") on _____, requesting proposals for _____, as described in the RFP; and

WHEREAS, Contractor timely responded to the RFP by submitting a response dated _____ ("Contractor's Response"); and

WHEREAS, based on the evaluation factors set out in the RFP, Contractor was the successful Offeror for the services listed in the RFP; and

[FOR CONTRACTS MORE THAN $200,000.00] -- WHEREAS, the County Council approved this Agreement at a public meeting held on _____; and

[FOR CONTRACTS MORE THAN $50,000.00] -- WHEREAS, the Board of Public Utilities approved this Agreement at a public meeting held on _____; and

WHEREAS, Contractor will provide the Services, as described below, to County.

NOW, THEREFORE, for and in consideration of the premises and the covenants contained herein, County and Contractor agree as follows:

SECTION A. SERVICES:

1. **Contractor Services**.

2. **Deliverables.**

SECTION B. TERM: The term of this Agreement shall commence _____ and shall continue through _____, unless sooner terminated, as provided herein.

SECTION C. COMPENSATION:

1. **Amount of Compensation**. County shall pay compensation for performance of the Services in an amount not to exceed _____ ($_____), which amount does not include applicable New Mexico gross receipts taxes ("NMGRT"). Compensation shall be paid in accordance with the rate schedule set out in Exhibit "A," attached hereto and made a part hereof for all purposes.

2. **Monthly Invoices**. Contractor shall submit itemized *[monthly]* invoices to County's Project Manager showing amount of compensation due, amount of any NMGRT, and total amount payable. Payment of undisputed amounts shall be due and payable thirty (30) days after County's receipt of the invoice.

SECTION D. TAXES: Contractor shall be solely responsible for timely and correctly billing, collecting and remitting all NMGRT levied on the amounts payable under this Agreement.

SECTION E. STATUS OF CONTRACTOR, STAFF, AND PERSONNEL: This Agreement calls for the performance of services by Contractor as an independent contractor. Contractor is not an agent or employee of County and will not be considered an employee of County for any purpose. Contractor, its agents or employees shall make no representation that they are County employees, nor shall they create the appearance of being employees by using a job or position title on a name plate, business cards, or in any other manner, bearing the County's name or logo. Neither Contractor nor any employee of Contractor shall be entitled to any benefits or compensation other than the compensation specified herein. Contractor shall have no authority to bind County to any agreement, contract, duty or obligation. Contractor shall make no representations that are intended to, or create the appearance of, binding County to any agreement, contract, duty, or obligation. Contractor shall have full power to continue any outside employment or business, to employ and discharge its employees or associates as it deems appropriate without interference from County; provided, however, that Contractor shall at all times during the term of this Agreement maintain the ability to perform the obligations in a professional, timely and reliable manner.

SECTION F. STANDARD OF PERFORMANCE: Contractor agrees and represents that it has and will maintain the personnel, experience and knowledge necessary to qualify it for the particular duties to be performed under this Agreement. Contractor shall perform the Services described herein in accordance with a standard that exceeds the industry standard of care for performance of the Services.

SECTION G. DELIVERABLES AND USE OF DOCUMENTS: All deliverables required under this Agreement, including material, products, reports, policies, procedures, software improvements, databases, and any other products and processes, whether in written or electronic form, shall remain the exclusive property of and shall inure to the benefit of County as works for hire; Contractor shall not use, sell, disclose, or obtain any other compensation for such works for hire. In addition, Contractor may not, with regard to all work, work product, deliverables or works for hire required by this Agreement, apply for, in its name or otherwise, any copyright, patent or other property right and acknowledges that any such property right created or developed remains the exclusive right of County. Contractor shall not use deliverables in any manner for any other purpose without the express written consent of the County.

SECTION H. EMPLOYEES AND SUB-CONTRACTORS: Contractor shall be solely responsible for payment of wages, salary or benefits to any and all employees or contractors retained by Contractor in the performance of the Services. Contractor agrees to indemnify, defend and hold harmless County for any and all claims that may arise from Contractor's relationship to its employees and subcontractors.

SECTION I. INSURANCE: Contractor shall obtain and maintain insurance of the types and in the amounts set out below throughout the term of this Agreement with an insurer acceptable to County. Contractor shall assure that all subcontractors maintain like insurance. Compliance with the terms and conditions of this Section is a condition precedent to County's obligation to pay compensation for the Services and Contractor shall not provide any Services under this Agreement unless and until Contractor has met the requirements of this Section. County requires Certificates of Insurance or other evidence acceptable to County that Contractor has met its obligation to obtain and maintain insurance and to assure that subcontractors maintain like insurance. Should any of the policies described below be cancelled before the expiration date thereof, notice will be delivered in accordance

with the policy provisions. General Liability Insurance and Automobile Liability Insurance shall name County as an additional insured.

1. **General Liability Insurance:** ONE MILLION DOLLARS ($1,000,000.00) per occurrence; TWO MILLION DOLLARS ($2,000,000.00) aggregate.

2. **Workers' Compensation:** In an amount as may be required by law. County may immediately terminate this Agreement if Contractor fails to comply with the Worker's Compensation Act and applicable rules when required to do so.

3. **Automobile Liability Insurance for Contractor and its Employees:** ONE MILLION DOLLARS ($1,000,000.00) combined single limit per occurrence; TWO MILLION DOLLARS ($2,000,000.00) aggregate on any owned, and/or non-owned motor vehicles used in performing Services under this Agreement.

4. **PROFESSIONAL LIABILITY INSURANCE,** with a limit of not less than $1,000,000 each Claim, with a $1,000,000 annual aggregate, and sufficient to provide coverage for a three (3) year period from completion of this contract, against any and all claims which may arise from the Contractor's negligent performance of work described herein.Other types of insurance which are project specific. Check with Risk Manager when needed.

SECTION J. RECORDS: Contractor shall maintain, throughout the term of this Agreement and for a period of six (6) years thereafter, records that indicate the date, time, and nature of the services rendered. Contractor shall make available, for inspection by County, all records, books of account, memoranda, and other documents pertaining to County at any reasonable time upon request.

SECTION K. APPLICABLE LAW: Contractor shall abide by all applicable federal, state and local laws, regulations, and policies and shall perform the Services in accordance with all applicable laws, regulations, and policies during the term of this Agreement. In any lawsuit or legal dispute arising from the operation of this Agreement, Contractor agrees that the laws of the State of New Mexico shall govern. Venue shall be in the First Judicial District Court of New Mexico in Los Alamos County, New Mexico.

SECTION L. NON-DISCRIMINATION: During the term of this Agreement, Contractor shall not discriminate against any employee or applicant for an employment position to be used in the performance of the obligations of Contractor under this Agreement, with regard to race, color, religion, sex, age, ethnicity, national origin, sexual orientation or gender identity, disability or veteran status.

SECTION M. INDEMNITY: Contractor shall indemnify, hold harmless and defend County, its Council members, employees, agents and representatives, from and against all liabilities, damages, claims, demands, actions (legal or equitable), and costs and expenses, including without limitation attorneys' fees, of any kind or nature, arising from Contractor's performance hereunder or breach hereof and the performance of Contractor's employees, agents, representatives and subcontractors.

SECTION N. FORCE MAJEURE: Neither County nor Contractor shall be liable for any delay in the performance of this Agreement, nor for any other breach, nor for any loss or damage arising from uncontrollable forces such as fire, theft, storm, war, or any other force majeure that could not have been reasonably avoided by exercise of due diligence.

SECTION O. NON-ASSIGNMENT: Contractor may not assign this Agreement or any privileges or obligations herein without the prior written consent of County.

SECTION P. LICENSES: Contractor shall maintain all required licenses including, without limitation, all necessary professional and business licenses, throughout the term of this Agreement. Contractor shall require and shall assure that all of Contractor's employees and subcontractors maintain all required licenses including, without limitation, all necessary professional and business licenses.

SECTION Q. PROHIBITED INTERESTS: Contractor agrees that it presently has no interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of its services hereunder. Contractor further agrees that it will not employ any person having such an interest to perform services under this Agreement. No County Council member or other elected official of County, or manager or employee of County shall solicit, demand, accept or agree to accept a gratuity or offer of employment contrary to Section 31-282 of the Los Alamos County Code.

SECTION R. TERMINATION:

1. **Generally**. County may terminate this Agreement with or without cause upon ten (10) days prior written notice to Contractor. Upon such termination, Contractor shall be paid for Services actually completed to the satisfaction of County at the rate set out in Section C. Contractor shall render a final report of the Services performed to the date of termination and shall turn over to County originals of all materials prepared pursuant to this Agreement.
2. **Funding**. This Agreement shall terminate without further action by County on the first day of any County fiscal year for which funds to pay compensation hereunder are not appropriated by the County Council. County shall make reasonable efforts to give Contractor at least ninety (90) days advance notice that funds have not been and are not expected to be appropriated for that purpose.

SECTION S. NOTICE: Any notices required under this Agreement shall be made in writing, postage prepaid to the following addresses, and shall be deemed given upon hand delivery, verified delivery by telecopy (followed by copy sent by United States Mail), or three (3) days after deposit in the United States Mail:

County:

Project Manager
Incorporated County of Los Alamos
1000 Central Avenue, Suite 130
Los Alamos, New Mexico 87544

Contractor:

SECTION T. INVALIDITY OF PRIOR AGREEMENTS: This Agreement supersedes all prior contracts or agreements, either oral or written, that may exist between the parties with reference to the services described herein and expresses the entire agreement and understanding between the parties with reference to said services. It cannot be modified or changed by any oral promise made by any person, officer, or employee, nor shall any written modification of it be binding on County until approved in writing by both County and Contractor.

SECTION U. NO IMPLIED WAIVERS: The failure of the County to enforce any provision of this Agreement is not a waiver by the County of the provisions or of the right thereafter to enforce any provision(s).

SECTION V. SEVERABILITY: If any provision of this Agreement is held to be unenforceable for any reason: (i) such provision will be reformed only to the extent necessary to make the intent of the language enforceable; and (ii) all other provisions of this Agreement will remain in effect.

SECTION W. CAMPAIGN CONTRIBUTION DISCLOSURE FORM: A Campaign Contribution Disclosure Form is attached as Exhibit "C." Contractor must submit this form with this Agreement, if applicable.

OR

SECTION W. CAMPAIGN CONTRIBUTION DISCLOSURE FORM: A Campaign Contribution Disclosure Form was submitted as part of the Contractor's Response and is incorporated herein by reference for all purposes.

SECTION X. **LEGAL RECOGNITION OF ELECTRONIC SIGNATURES**: Pursuant to NMSA 1978 § 14-16-7, this Agreement may be signed by electronic signature.

SECTION Y. DUPLICATE ORIGINAL DOCUMENTS: This document may be executed in two (2) counterparts, each of which shall be deemed an original.

IN WITNESS WHEREOF, the parties have executed this Agreement on the date(s) set forth opposite the signatures of their authorized representatives to be effective for all purposes on the date first written above.

ATTEST

_____

NAOMI D. MAESTAS
COUNTY CLERK

INCORPORATED COUNTY OF LOS ALAMOS

BY: _____

STEVEN LYNNE **DATE**
COUNTY MANAGER

Approved as to form:

_____

J. ALVIN LEAPHART
COUNTY ATTORNEY

_____**, A _____ CORPORATION**

BY:

_____

DATE

Exhibit "B"

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS – PRIMARY COVERED TRANSACTIONS
RFP NO: 22-36
RFP Name: Transformer and Field Services for El Vado Hydroelectric Plant

This document should be returned with RFP submittal.

(1) I or We, _____ (the "Vendor") hereby certify to the best of our knowledge and belief that neither the Vendor nor any of its principals:

(a) are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any federal, state, or local department or agency;
(b) have, within a 3-year period preceding this proposal, been convicted of or had a civil judgment rendered against them for - commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state, or local) transaction or contract under a public transaction; violation of federal or state antitrust statutes; or commission of embezzlement, theft, forgery, bribery; falsification or destruction of records; making false statements; or receiving stolen property;
(c) are presently indicted for or otherwise criminally or civilly charged by a governmental entity (federal, state, or local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and
(d) are not considered to be an "immediate family member" of a County employee or public official. Immediate family means the employee's or public official's spouse, parents, step-parents, child, step-child, sibling, step-sibling, half-sibling, grandparent, grandchild, aunt, uncle, niece, nephew, or their in-laws, or an individual claimed by the public official or his/her spouse as a dependent under the United States Internal Revenue Code.
(e) have within a 3-year period preceding this Application had one or more public transactions (federal, state, or local) terminated for cause or default.

(2) If we are unable to certify to any of the statements in this certification, we shall attach an explanation hereto.

(3) Certification to any of the statements in this certification will be thoroughly reviewed, and may not necessarily preclude the Vendor from consideration for award.

(4) Falsification of any statement in this Form shall constitute grounds for non-consideration of the vendor's proposal or rescinding of a contract award.

_____ Date

_____ Authorized Representative's Signature

_____ Print Name

_____ Print Title

Exhibit "C"

CAMPAIGN CONTRIBUTION DISCLOSURE FORM
RFP NO: 22-36
RFP Name: Transformer and Field Services for El Vado Hydroelectric Plant
This document should be returned with RFP submittal.

Any prospective contractor seeking to enter into a contract with the Incorporated County of Los Alamos must file this form disclosing whether they, a family member or a representative of the prospective contractor has made a campaign contribution to an applicable public official during the two (2) years prior to the date on which prospective contractor submits a proposal or, in the case of a sole source or small purchase contract, the two (2) years prior to the date prospective contractor signs the contract, if the aggregate total of contributions given by the prospective contractor, a family member or a representative of the prospective contractor to the public official exceeds TWO HUNDRED FIFTY DOLLARS ($250.00) over the two (2) year period.

THIS FORM MUST BE FILED BY ANY PROSPECTIVE CONTRACTOR WHETHER OR NOT THEY, THEIR FAMILY MEMBER, OR THEIR REPRESENTATIVE HAS MADE ANY CONTRIBUTIONS SUBJECT TO DISCLOSURE.

The following definitions apply:

"**Applicable public official**" means a person elected to an office or a person appointed to complete a term of an elected office, who has the authority to award or influence the award of the contract for which the prospective contractor is submitting a competitive sealed proposal or who has the authority to negotiate a sole source or small purchase contract that may be awarded without submission of a sealed competitive proposal.

"**Campaign Contribution**" means a gift, subscription, loan, advance or deposit of money or other things of value, including the estimated value of an in-kind contribution, that is made to or received by an applicable public official or any person authorized to raise, collect or expend contributions on that official's behalf for the purpose of electing the official to either statewide or local office. "Campaign Contribution" includes the payment of a debt incurred in an election campaign, but does not include the value of services provided without compensation or unreimbursed travel or other personal expenses of individuals who volunteer a portion or all of their time on behalf of a candidate or political committee, nor does it include the administrative or solicitation expenses of a political committee that are paid by an organization that sponsors the committee.

"**Contract**" means any agreement for the procurement of items of tangible personal property, services, professional services, or construction.

"**Family member**" means a spouse, father, mother, child, father-in-law, mother-in-law, daughter-in-law or son-in-law of:
(a) a prospective contractor, if the prospective contractor is a natural person; or
(b) an owner of a prospective contractor;.

"**Pendency of the procurement process**" means the time period commencing with the public notice of the request for proposals and ending with the award of the contract or the cancellation of the request for proposals.

"**Person**" means any corporation, partnership, individual, joint venture, association or any other private legal entity.

"**Prospective contractor**" means a person who is subject to the competitive sealed proposal process set forth in the Procurement Code or is not required to submit a competitive sealed proposal because that person qualifies for a sole source or a small purchase contract.

"**Representative of a prospective contractor**" means an officer or director of a corporation, a member or manager of a limited liability corporation, a partner of a partnership or a trustee of a trust of the prospective contractor.

DISCLOSURE OF CONTRIBUTIONS: (Report any applicable contributions made to the following - COUNTY COUNCILORS: Denise Derkacs; David Izraelevitz; David Reagor; James Robinson; Randal Ryti; Sara Scott; and Sean Williams.)

Contribution Made By:			
Relation to Prospective Contractor:			
Name of Applicable Public Official:		Governor _____	
Contribution(s) Date(s)	**Contribution Amount(s):**	**Nature of Contribution(s):**	**Purpose of Contribution(s):**
	$		
	$		
	$		
	$		
	$		

(Attach extra pages if necessary)

_____ _____
Signature Date

_____
Title (position)

—OR—

NO CONTRIBUTIONS IN THE AGGREGATE TOTAL OVER TWO HUNDRED FIFTY DOLLARS ($250.00) WERE MADE to an applicable public official by me, a family member or representative.

_____ _____
Signature Date

_____
Title (position

Exhibit "D"

VERIFICATION OF AUTHORIZED OFFEROR
RFP NO: 22-36
RFP Name: Transformer and Field Services for El Vado Hydroelectric Plant
This document should be returned with RFP submittal.

Sec. 31-261. - State and local preferences.

(a) *Definitions.* For the purposes of this section:

(1) The terms "resident business" and "resident veteran business" shall be defined as set out in NMSA 1978, § 13-1-21;

(2) The term "local" as applied to a business shall mean that it meets the requirements of the above definition, maintains its principal office and place of business in Los Alamos County, and has a required Los Alamos County business license.

(b) *Requirements for preference qualification.* The chief purchasing officer shall determine if a preference is applicable to a particular bid or offer on a case-by-case basis. A bidder or offeror must submit a written request for preference, with a copy of the state-issued preference certificate, with its bid or proposal to qualify for this preference.

(1) If a corporation, it shall be incorporated in New Mexico and maintain its principal office and place of business in the state;

(2) A person shall have qualified with the state chief purchasing officer as a resident business or resident veteran business and obtained a certification number as provided in NMSA 1978, § 13-1-22.

(c) *Preference factor.*

(1) The preference factor for qualifying resident and local businesses applied to bids and proposals shall be five percent.

(2) The preference factor for qualifying resident veteran businesses shall be in accordance with the requirements set forth in NMSA 1978, § 13-1-21.

(d) *Invitations for bids.* When bids are received, the price quoted by the qualifying vendor shall be multiplied by 0.95. After application of the preference factor, the contract shall be awarded to the lowest bidder. If one or more low prices are equal, the bid shall be awarded with respect to the next category of offerors listed below, and the next, until an offer qualifies for award. The priority of categories of offers is as follows:

(1) Local business;

(2) Resident business.

(e) *Requests for proposals.* When proposals are received, the total evaluation score with or without the cost factor of each proposal received from a qualifying vendor shall be multiplied by 1.05. After application of the factor, the contract shall be awarded to the highest score. If one or more scores are equal, the same procedure shall be followed with respect to the next category of offerors listed, and the next, until an offer qualifies for award. The priority of categories of offerors is the same as listed in subsection (d) of this section.

(f) *Exemptions from preferences.* The resident and local preference specified in this article shall not be applied:

(1) To requests for qualifications;

(2) To any purchase of goods or services in excess of $500,000.00;

(3) When the expenditure of federal funds designated in whole or in part for a specific purchase is involved; or

(4) When the expenditure of grant funds, a condition of which prohibits a local preference, is involved.

(Ord. No. 02-098, § 2, 12-2-2008; Ord. No. 02-305, § 8, 2-25-2020)

Are you requesting Preference?

☐ **YES** ☐ **NO**

By answering "yes," the bidder or offeror is submitting a written request for preference.

A Bidder or Offeror must submit a copy of the state-issued preference certificate with its bid or proposal to qualify for this preference.

Having read the proposal conditions and examined the scope of services and deliverables for this RFP, this Proposal is hereby submitted by:

_____ /

Signature and Printed Name of Authorized Offeror **Title**

Organization's Legal Name **State of Incorporation**

Email Address

Mailing Address **City** **State** **Zip Code**

Physical Address **City** **State** **Zip Code**

Telephone No.

Federal Tax I.D. # **NM CRS # (if located in-state)**

Contract Manager Printed Name, Title and Email Address

If your firm meets the definition of one or more of the types of business described below as defined by the Small Business Administration, please check the appropriate box:

- ☐ **Small Business**
- ☐ **Woman-owned Business**
- ☐ **Minority-owned Business**

Exhibit "E"
COST SUMMARY SHEET
RFP NO: 22-36
RFP Name: Transformer and Field Services for El Vado Hydroelectric Plant

This attachment shall be returned with the RFP submittal.

Offeror (Company Name): _____

COST CATEGORY	Cost
Furnish new transformer for the El Vado Hydroelectric Plant and all other requirements identified in Need Statement, Project Scope and Transformer Specification, including One (1) Year Warranty.	$
Freight (Shipping and Handling), FOB Destination, El Vado Hydroelectric Plant	$
Costs for any factory testing if not included in the cost for the Transformer.	$
Costs for a Five (5) Year Warranty (optional warranty at County's Sole Option, would replace the One (1) Year required warranty if selected by County).	$
Cost for field testing if not included in the cost for the Transformer	$
Cost of assembly if not included in the cost for the Transformer.	$

Exhibit "F"
Transformer Specification
RFP NO: 22-36
RFP Name: Transformer and Field Services for El Vado Hydroelectric Plant

TRANSFORMER AND FIELD SERVICES FOR EL VADO HYDROELECTRIC PLANT

October 2021

RFP 22-36

LOS ALAMOS COUNTY – NEW MEXICO

1. STANDARDS:

1.1. The transformer shall be designed, constructed, and tested in accordance with the latest revision of the applicable IEEE, ANSI, and NEMA standards, except where specific requirements of these specifications conflict with these standards. In such cases, these specifications shall take precedence.

1.2. It is assumed that the equipment provided by the manufacturer will be in strict compliance with these specifications unless specific exception is taken and explanation provided.

2. RATINGS:

2.1.	Number of Phases	Three
2.2.	Capacity HV@ 65 Deg C Rise	8.2/10.25 MVA
2.3.	Cooling Class	OA/FA
2.4.	Coolant	Mineral Oil per ASTM D3487
2.5.	Frequency	60 Hertz
2.6.	High Voltage	69kV Volts**,** GRDY
2.7.	High Voltage Basic Impulse Level (BIL)	350 kV
	2.7.1 HV Neutral BIL	110 kV
2.8.	Low Voltage	4160 Volts**,** DELTA
2.9.	Low Voltage Basic Impulse Level (BIL)	60 kV
2.10	Impedance	7.38% @ 8.2 MVA

Manufacturer shall state the guaranteed impedance at nominal voltage ratings, HV @ C tap, LV @ Neutral, in the quotation and percentage of tolerance range.

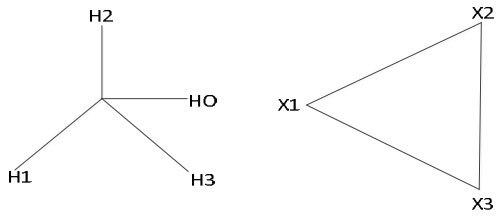
2.10.1 Transformer design and construction shall ensure that a short circuit test of the transformer will not result in an impedance change exceeding 2% of the impedance value measured prior to short circuit testing.

2.10.2 Impedance tolerance is ± 7.5% for two winding transformers

2.10.3 De-Energized Taps (DETC): 2 1/2% steps, 1 below and 3 above nominal 69 kV, full capacity taps. Tap changer for de-energized operation with operating handle brought outside the tank. The operating handle for the de-energized tap changer shall be, pad lockable, located at a convenient height for operation by a person standing on the transformer pad, and shall include a position indicator with the highest voltage tap designated as "A" or (1).

2.11 Load Tap Changing is not required.

2.12 Vector Relationship:



2.13 Elevation: The transformer shall be located at 7000 Ft above sea level and shall be rated for continuous operation at the specified altitude without derating.

2.14 Ambient temperature shall be 30°C daily average, 40°C maximum, -20°C minimum.

3. TRANSFORMER LOSS EVALUATION

The guaranteed no-load and load losses shall be stated in the Proposal. An amount in dollars shall be added to the quoted price for loss evaluation according to the following factors:

3.1.	No-Load Losses @ 20°C	$6000/kW
3.2.	Load Losses @ 85°C	$4500/kW at 8.2 MVA
3.3.	Auxiliary Losses	$4500/kW at 10.25 MVA

3.4. Test system accuracy must be verified for conformance with the requirements of C57.12.00-2000, Section 9.4. The proposal shall include documentation, which verifies the accuracy of the loss measurement system in accordance with the method of NIST Technical Note 1204, or in accordance with the method of Dr. Eddie So of the National Research Council of Canada. The documentation provided with the proposal shall include sufficient identification of the test system to enable the purchaser to confirm that it is the same system used to test the transformer.

3.5. Reported losses shall use ANSI reference temperatures of 20 degrees C for No Load Losses and 85 degrees C for Full Load Losses.

4. ACCESSORY EQUIPMENT:

4.1. The transformer shall be equipped with all accessories required by ANSI Standards. Indicators shall have alarm and trip contacts rated for 125 VDC for customer use in addition to required contacts for fan control or indication. All available contacts shall be wired to identified terminal points in the main control cabinet and shall be suitable for use in the transformer protection scheme. As a minimum, indicators shall include:

4.1.1. Magnetic liquid level indicator

4.1.1.1With form "C" alarm contacts (Qualitrol Model No. CAS 797-1 or approved equal)

4.1.2. Liquid temperature indicator

4.1.2.1 With form "C" alarm contacts (Qualitrol Series 104-411-01 or approved equal)

4.1.3. Winding temperature indicator

4.1.3.1 With form "C" alarm contacts (Qualitrol Series 104-405-01 or approved equal)

4.1.4. Pressure/Vacuum indicator

4.1.3.1 With form "C" alarm contacts (Qualitrol Series 104-405-01 or approved equal)

4.1.5. Fault Pressure Relay System

4.1.5.1. The control system shall be sensitive to the rate of pressure increase. (Qualitrol Model Number 900-014-02) mounted under oil with an auxiliary relay assembly for seal-in operation having both dry alarm and trip contacts. (Qualitrol Model Number 909-300-01 or approved equivalent).

4.1.6. Cover-mounted mechanical pressure relief device (Qualitrol XPRD00-0016609 or approved equivalent)

4.1.6.1 With automatic resealing operation

4.1.6.2 Qualitrol seal-in device with form "C" alarm contacts and trip contact.

4.1.6.3 Mechanical signal for indication of device operation.

4.1.6.4. With downpipe to direct flow to containment area. Pipe shall be suitably located on the transformer with screened opening located ~18" above ground.

NOTE: Indicators with dial readouts shall have minimum 6" diameter dials with the exception of the pressure gauge which can be smaller but readable from the ground. Resettable indicators shall be mounted no higher than 6' above ground with the exception of the mechanical pressure relief device which will be cover mounted.

4.1.7. Drain valve and the oil sampling valve

4.1.7.1. Located to allow complete draining or sampling from the bottom of the tank.

4.1.8. Lifting lugs for lifting complete oil filled transformers.

4.1.9. Lifting eyes for lifting the cover only.

4.1.10. Facilities for lifting core and coil assembly from tank.

4.1.11. Jacking facilities at four corners of the base.

4.1.12. Diagrammatic aluminum nameplate for both the transformer and load tap changer. Information provided on the nameplate shall be included with the bid documents.

4.1.13. A minimum of two circular, bolted manhole covers shall be provided. They shall be located such that they are accessible without the removal of any other

equipment. Manholes shall be constructed with flush handles to reduce tripping hazard when working on the transformer cover.

4.1.14. Core shall be grounded at only one point, brought to a convenient location for testing and be accessible.

4.1.12.1 All hardware necessary for removing the ground lead for testing shall utilize captive hardware.

4.1.12.2 Removable without either entry into the tank or removal of any transformer oil.

4.1.12.3 Brought out on the cover through suitable bushing and grounded externally.

4.1.15. A device suitable for mounting a safety device in the approximate center of the tank cover and capable supporting hardware including harnesses utilizing gravity brakes shall be provided.

In addition, the following equipment will be supplied:

4.2. ***Bushings***:

4.2.1. High voltage line bushings will be located on the transformer Top in ANSI Segment 3; and shall be rated 400 Amps, 69 kV, 350 kV BIL (min) at station elevation. Bushings shall include NEMA 4-hole pads and threaded studs.

4.2.2. Low voltage line bushings will be located on the transformer sidewall compartment in ANSI Segment 1; and shall be rated 2000 Amperes, 15 kV, 110 kV BIL (min). (See also transition compartment details). If located below oil they shall be rated for this type of service and sealed accordingly.

4.2.3. High voltage neutral bushing will be located on the cover in the corner between ANSI Segment 1 and 2; and shall be rated 600 Amperes, 15 kV, 110 kV BIL (min).

4.2.4. All high voltage bushings shall be Sky Gray (ANSI 70), shall have provisions for power factor testing and be oil-filled condenser type. Low side bushings shall be porcelain, including bus support type bushings, and shall have threaded studs and suitable 4-hole connector pads for customer connections.

4.2.5. Use draw lead type bushings for all bushings not shipped factory installed.

4.2.6. Supports shall be included for bus to extend the bushing terminal into the transition compartment as shown in the transition compartment details.

4.3. ***Current Transformers***: Bushing type current transformers for relaying service shall be furnished as described below and be cover mounted internal to the transformer tank:

4.3.1. Each high voltage bushing:

4.3.1.1. Qty 1 , 600/5 MRCT, C800

4.3.1.2. Qty 1 , 600/5 MRCT, C800

4.3.2. Each low voltage bushing:

4.3.2.1. Qty 1 , 1500/5 MRCT, C800

4.3.2.2. Qty 1 , 1500/5 MRCT, C800

4.3.3. low voltage neutral bushing:

4.3.3.1. Qty 1 , 100/5 MRCT, C800

4.3.4. All Current Transformers shall have fully distributed windings and a minimum Thermal Rating Factor of 2.0

4.3.5. Hot Spot CTs shall be provided as needed to support manufacturer control schemes and indicators. Suitable wells shall be utilized that do not require the oil level to be dropped for servicing elements.

4.4. ***Surge Arresters***: There shall be provided six metal-oxide, polymer housed station type surge arresters.

4.4.1. Three 42 kV MCOV rated surge arresters mounted near and connected to the high voltage bushings. Provide mounting for arresters such that connector pads are same level.

4.4.2. Three 5.1 kV MCOV rated surge arresters mounted near and connected to the low voltage bushings inside the transition cable compartment.

4.4.3 The transformer shall be equipped with a ground bus & cabling for connection of all surge arresters to ground pad(s) at the base of the transformer. Provide stainless steel 2-hole pads on all four corners of transformer as well as suitable bronze connectors for one or two 4/0 to 500 MCM ground conductor connections for use by the Owner.

4.4.4 Arresters shall meet the requirements of ANSI C62.1. and be provided with NEMA 4-hole pads for line connections and eyelet grounds. Present layout for transition compartment mounting of arresters and buswork.

5. ELECTRICAL DESIGN:

5.1. The transformer, including all core and coil assemblies, shall be power class, round core/circular coil design and construction. High voltage and low voltage windings for the main core/coil assembly shall be either disk or helical construction, layer/barrel windings are not acceptable. All windings shall be copper conductor and either rectangular magnet wire or continuous transposed cable.

5.1.1 The purchaser reserves the right to inspect the completed core and coil assembly prior to tanking. The manufacturer shall notify the purchaser not less than five days prior to the date of tanking to allow the customer to witness tanking, if so desired. Alternatively, a video visit shall be coordinated for customer review if travel is not possible.

5.2. The transformer design shall be adequate to withstand short circuits, with the fault current limited only by the impedance of the transformer itself.

5.3. Internal surge arresters or non-linear resistors shall not be included as part of the internal insulation system.

5.5 Insulation on all conductors used in the coil winding process shall be cellulose insulating paper. It shall be wound onto the conductor employing a spinning process. The paper insulation shall be applied in single or multiple strands such that a minimum of 30% of the paper surfaces are overlapped to provide for a continuous insulating surface. Sufficient tension shall be maintained on the paper strands so as to prevent loose wraps. If clamping rings are utilized in the transformer design, full circumference rings shall be used. Core and coils shall be dried using a “vapor phase” system prior to filling.

5.6 Provide layout for transition compartment and required phase-to-phase and phase-to-ground clearance distances. Supporting insulators, grounding, bus bar connections, flex leads, etc. shall be provided to facilitate connection by the customer to their existing cable terminations. PVC boots and fasteners shall be included with transformer accessories. Termination lengths shall be included in determination of boot physical dimensions.

6. COOLING EQUIPMENT AND CONTROLS

6.1. Cooling equipment shall be furnished as required to provide the transformer's rated capacity without exceeding the guaranteed temperature rise.

6.2. Forced cooling capacity shall be provided by the use of fans for forced air cooling. Temperature control shall be provided by winding temperature equipment, including a temperature indicator and relay contacts to automatically actuate forced cooling equipment in proportion to the transformer load.

6.3. Cooling equipment fan motors shall be rated for service on a 208, three-phase power supply. Control circuit devices shall be rated 120 volt single phase or 208 V single phase. Alarm circuit devices shall be rated for 125 volts DC.

6.4. Manual control switches shall be provided in the control cabinet to allow testing and maintenance of the cooling fans, and to enable selection of which group of fans is used for the first forced cooled stage. Transformer cooling equipment shall be designed for continuous self-cooled/force-cooled operation.

6.5. Removable radiators will be supplied with individual shut-off valves at each tank connection. Each radiator will be supplied with means for draining and venting.

6.6 All radiators shall be interchangeable and shall be provided with a galvanized finish.

6.7 All fans shall have galvanized fan guards and be provided with one-piece fan blades.

7. MECHANICAL CONSTRUCTION

7.1. The tank, and radiators shall be fabricated from steel with sufficient strength to withstand normal service stresses without distortion or damage.

7.1.1. The tank shall be designed to withstand an internal operating pressure of 8 psi with margin for a minimum of 25% over pressure, and full vacuum. All joints in the tank and radiators shall be made oil tight and gas tight by welding inside and outside.

All tank seams shall be double welded (inside and outside) and shall be a minimum of six (6) inches from the corner. Corner welds are not acceptable.

7.1.2. Cover shall be domed or sloped to shed water and welded to the tank. During welding of the transformer cover, an inorganic gasket will be permanently located between the cover and the tank flange to prevent the entrance of weld spatter into the tank.

7.1.3. All gasketed openings shall be designed with means provided for controlled compression of the gasket, utilizing metal-to-metal stops, and re-usable gaskets of oil resistant material (nitrile butadiene or Engineer approved alternative). All gasketed joints on top of the transformer shall utilize flanges, which are raised at least 3/4 inch above the cover surface & have recessed grooves for proper placement.

7.1.4. Radiators shall be constructed to withstand tank operating pressure and full vacuum.

7.1.5 All external tank supports or stiffeners shall be box beam construction and continuously welded.

7.1.6. Tank centerlines and center of gravity shall be clearly marked on all four segments.

7.1.7. Tank shall not be welded on corners and sealed tubular bracing will be utilized for additional head space expansion volume.

7.2. ***Paint***:

7.2.1. Transformer tank and all auxiliary equipment shall be painted with a rust-inhibiting primer and top coat to provide a minimum 3 mil dry film thickness. External paint color shall be Sky Gray, ANSI 70.

Accelerated aging test must be performed on the paint to be used inside the tank. A plate steel sample coated with the white paint shall be submerged in transformer insulating oil and heated to 130 degrees C. After 1,000 hours, there may not be any change in the painted surface, or in the power factor of the oil used for the test.

7.3. ***Oil Preservation System:***

7.3.1. Sealed-tank construction with inert gas system for transformer head space. Manufacturer shall provide inert gas system with suitable two or three stage regulation assembly, enclosure with suitable bottle and tank gauges. Enclosure shall fully enclose bottle and be provided with low/high gas pressure and low bottle alarms. 120 VAC enclosure heaters shall be provided to facilitate use of assembly at site conditions, as required. Locate enclosure base within 3" of transformer of base.

7.3.2. The tank shall be equipped with a pressure vacuum gauge, pressure vacuum bleeder (regulator) and needle valve for the addition of nitrogen, when required.

7.3.3. INSULATING LIQUID: A sufficient quantity of inhibited mineral oil shall be furnished for the transformer to fill it to the normal operating level. The insulating liquid shall meet all requirements as defined by ANSI Standards, shall be chemically stable, free from acidity or other corrosive ingredients, and shall be certified "Non-PCB" in accordance with current EPA Regulations.

7.4. ***Auxiliary Power and Control Circuits***:

7.4.1. All auxiliary power and control circuits which are supplied for connection to external circuits shall be brought to suitable terminal blocks located in a common, weather-resistant, vibration free, NEMA 3R rated control cabinet (min). All contacts on auxiliary devices shall be wired to terminal blocks in the same cabinet for Owner's use. Terminal blocks shall be with washer head binding screws and white circuit identification marking strips. Shorting type terminal blocks shall be used on current transformer leads (GE type EB25 and/or 27 for controls type terminal blocks; AC/DC Power blocks shall be Marathon 1422123 or approved equivalent.)

7.4.2 Cabinet shall be equipped with a stainless steel 3-point latching mechanism(s), a continuous stainless steel hinge and convenience outlet and service lighting.

7.4.3 All welds on all enclosures shall be continuous to prevent moisture from entering.

7.4.4 Wire for control and power circuits shall be rated for use in conduits as well as cabinets, and shall utilize insulation which is both fire resistant and resistant to transformer insulating oil. Manufacturer shall utilize #14 AWG minimum for controls and #12 or #10 for CT circuits. Insulated ring lugs shall be used for wire terminations in the control cabinet.

7.4.5 Control Cabinet shall have 120 VAC heaters to minimize condensation, PTC type or similar.

7.4.6 AC and DC power circuits shall be furnished with under-voltage relays with alarm contacts wired out to the terminal blocks for Owner's annunciation purposes. Final control voltage(s) of 48 or 125 VDC will be confirmed during the drawing submittal process.

7.4.7 Flex conduit connections shall be limited to short lengths for connections to fans.

8. FACTORY TESTS

8.1. All routine tests listed in ANSI C57.12.00-2000, plus additional tests as specified herein, are required. The transformer shall be fully assembled, including all permanent radiators and bushings, during test with serial numbers of bushings noted in each mounting position.

8.2. Five certified copies of the certified test report shall be delivered to the purchaser not later than 10 days after completion of all factory tests.

8.3. Insulation power factor tests shall be performed on all winding-to-winding and winding-to-ground insulation. Measured values exceeding 0.5% (corrected to 20 C) will not be accepted.

8.4. Sweep Frequency Response Testing (SFRA) shall be performed on the unit at the factory for use in comparison with field testing.

8.5. The purchaser reserves the right to witness testing. The manufacturer shall notify the purchaser of the performance dates for all tests not less than five days prior to the date of a test to allow the purchaser to witness testing if so desired. Coordination of a 'video visit' shall also be allowed should the Owner not be able to attend in person.

8.6. The manufacturer shall notify the purchaser of any unusual event or damage occurring during the fabrication of the transformer and of all tests which do not meet the specified or guaranteed values. The purchaser reserves the right to inspect such damages or test failures. Corrective measures to overcome such damage or failure shall be reviewed with the Owner.

8.7 Dissolved Gas Analysis of insulating oils (DGA) shall be provided after each factory test in accordance with manufacturer practices.

8.8 Dielectric testing shall be performed on the unit.

8.9 A heat run shall be required on the unit to confirm performance as compared to the transformer nameplate ratings.

9. SHIPPING REQUIREMENTS

9.1. The manufacturer is responsible to ship the transformer **F.O.B. destination, El Vado Hydroelectric Plant, substation site, freight prepaid and add to invoice**.

9.1.1. For truck shipment the destination shall be the substation site.

9.2. The transformer shall be shipped from the factory oil-filled if weight limitations allow.

9.3. Fans shall be mounted on and shipped with appropriate radiator bank(s).

10. FIELD SERVICES

10.1. Seller shall provide a field services engineer to direct the dress out of the transformer after it has been placed on the foundation by the contractor performing the installation. The field services engineer shall direct the assembly, filling, and connection of any equipment such as, but not limited to, bushings, radiators, nitrogen systems, drying and vacuum filling with oil, which were removed or modified for shipping and are required for transformer operation.

10.2. Field Service Engineer shall conduct a complete visual and mechanical inspection and shall submit a written report containing the following, at a minimum:

10.2.1. Compare equipment nameplate data with the drawings and specifications.

10.2.2. Inspect physical and mechanical condition including documented readings or

observations from manufacturer supplied SFRA and Impact recorders

10.2.3. Inspect anchorage, alignment, and grounding.

10.2.4. Verify the presence of PCB content labeling.

10.2.5. Verify removal of any shipping bracing after placement.

10.2.6. Verify the bushings and transformer is clean.

10.2.7. Verify that alarm, control, and trip settings on temperature and level indicators are as specified.

10.2.8. Verify that cooling fans and/or pumps operate correctly, and that fan and pump motors have correct over-current protection.

10.2.9. Verify correct liquid level in tanks and bushings.

10.2.10. Verify that positive pressure is maintained on gas-blanket transformers.

10.2.11. Perform inspections and mechanical tests as recommended by the manufacturer.

10.2.12. Confirm radiator valves are locked in the open position.

10.2.13. Take oil sample and have complete oil test report completed.

10.2.14. Any other inspections normally performed by the Seller

11. ACCEPTANCE TESTING AFTER INSTALLATION

11.1 The following tests will be performed by an independent testing company contracted by the Buyer:

11.1.1. Winding and core ground resistance

11.1.2. Winding Ratio of high and low voltage on all taps

11.1.3. SFRA Testing

11.1.4. Polarity and phase relation of winding

11.1.5. Polarity and ratio tests of Current Transformers

11.1.6. Insulation power factor and excitation current test of all windings

11.1.7. H.V. and L.V. bushing insulation power factor, C1 and C2 tap tests

11.1.8. H.V. and L.V. arresters power factor

11.1.9. Functional testing of all alarms to terminal blocks B. The transformer shall be accepted based on the results of the field tests.

12. LV Transition Compartment

12.1 The transformer shall be supplied with a low voltage transition compartment or throat located in Segment 1 with general dimensions and location as noted below. The compartment shall house the 4.16 kV connections that will allow for connection to the existing non-segregated bus duct sections. Transformer manufacturer shall accommodate this connection location and details in their design to facilitate replacement of the unit in the field.

12.2 Cabinet size (See also Appendix 2 for details)

12.2.1. LV Transformer Transition Compartment (with removable cover):

- 38” wide
- 24-1/2” deep
- 38-1/2” tall

12.2.2. Transition Boot (to include metal connection flanges):

- 27” wide
- 16” deep
- 12-1/2” tall

Please complete the following information to help us evaluate your proposal more thoroughly:

1) Main Coil Design: Round or Rectangular? .....

2) Type of windings:
HV: Disk or Helical: .....

LV: Disk or Helical: .....

3) Warranty:
* State the length of the warranty period: .....

* Is in/out coverage included & for how long? .....
* Does the warranty cover all accessories as well as the core & coil? .....

4) Will transformer ship oil filled? .....

5) Shipment:
* F.O.B. destination: Yes / No .....
* Proposed destination:
Rail Siding / Site / Pad .....

6) Does the winding design assume an infinite buss limited only by the impedance of the transformer? .....

7) Where will the transformer be manufactured? .....

8) Provide reference list of similar units? .....

9) Are all parts for transformer sourced domestically? .....

10) Max. 125/48 V DC power requirements? .....

11) Max 120/208, 3Ø VAC power requirements? .....

12) Will unit ship with impact recorder(s)? .....

13) Will positive/zero sequence impedance models be provided with the factory testing results? .....

14) Is site assembly/testing by the manufacturer required to validate the transformer warranty? .....

APPENDIX 1

69 kV – 4.16 kV 8.2/10.25 MVA

TRANSFORMER BID DATA SECTION

MANUFACTURER OF TRANSFORMER:_____

In addition to other data and descriptive material requested, the Manufacturer shall fill in all spaces of the following Data Section. The specifically listed items are in no way intended to limit the data submitted, and the Manufacturer is invited to submit all material believed necessary to provide a complete description of the transformer.

1.0 COST DATA

a. Cost of transformer, oil, accessories F.O.B. to transformer foundation, El Vado Station, near Chama, New Mexico including field engineer to oversee the assembly and testing of transformer at the site.

_____

b. Cost of all required factory tests (if not included above) _____

c. Price for a 5 yr. warranty _____

d. Price for field testing (if not included above) _____

e. Price for complete field assembly _____

2.0 Dates

Estimated Shipping Date Transformer _____

Estimated Arrival Date Transformer _____

3.0 RECEIVING AND INSTALLATION DATA

3.1 Weights (Pounds)

Transformer

Shipping:	_____ lbs.
Installed:	_____ lbs.
With oil, installed:	_____lbs.
Core and coil assembly, net:	_____lbs.
Tank and fittings, net:	_____lbs.
Heaviest shipping assembly, as shipped	_____lbs.

3.2 Oil, gallons

Main Tank: _____gals

3.3 Largest shipping section (Inches)

Overall height:	_____in.
Overall length:	_____in.
Overall width:	_____in.

3.4 Transformer installed dimensions (Inches)

Overall height:	_____in.
Overall length:	_____in.
Overall width:	_____in.
Minimum untanking height, base to crane hook:	_____in.

3.5 Tank only dimensions (Inches)

Overall height:	_____in.
Overall length:	_____in.
Overall width:	_____in.

3.6 Maximum AC power requirements (Amps): _____

3.7 Maximum DC power requirements (Amps): _____

3.8 Electronic format of drawings: _____

3.9 Electronic format of manuals: _____

3.10 Size of control compartment and location (HxWxD): _____in.

3.11 Provide scale outline drawing(s) of transformer including height and location of control compartment, radiators, fans, bushings, pumps, and other accessories.

3.12 Describe parts removed for shipment and hours required to install.

4.0 RATING AND PERFORMANCE DATA

4.1 Maximum permissible continuous transformer demand at rated voltage and at rated ambient temperature without exceeding standard hottest-spot or top oil temperature for the following conditions:

	55°C Rise	65°C Rise
At self-cooled rating (ONAN), MVA	_____	_____
At forced-cooled rating (ONAF), MVA	_____	_____

4.2 Positive Impedance, percent (H-X%)

Quoted _____%

Base MVA _____MVA

Tolerance, percent _____%

4.3 Regulation at 100 percent, 55°C rise, ONAN load (percent)

100 percent power factor _____%

90 percent power factor _____%

80 percent power factor _____%

4.4 Exciting current (percent)

95 percent voltage _____%

100 percent voltage _____%

105 percent voltage _____%

110 percent voltage _____%

4.5 Efficiency at ONAN rating and 75°C winding temperature (percent)

100 percent load 55°C temperature rise rating _____%

75 percent load _____%

50 percent load _____%

25 percent load _____%

The following items marked with an * will be used for transformer bid evaluation. If not filled out, ENGINEER will reject the bid.

4.6 Guaranteed maximum losses at specified temperatures in kW.

No-load losses at 20°C (kW)

110 percent voltage	_____kW
105 percent voltage	_____kW
100 percent voltage	*_____kW

4.7 Load Losses at specified temperature and taps in kW.

Load losses at 55°C rise over 20°C ambient, assuming sufficient voltage is applied to cause 100 percent of the rated current to flow in the windings with the other windings shorted.

80 percent of ONAN rating (@ 8.2 MVA)	_____kW
100 percent of ONAN rating (@ 8.2 MVA)	*_____kW
100 percent of ONAN/ONAF/ONAF (@ 10.25 MVA)	_____kW

4.8 Cooling equipment demand (kW)

At no-load, if any	_____kW
At ONAN	*_____kW
At ONAN/ONAF	_____kW

4.9 Total losses at 55°C rise (over 20°C ambient) in kW.

Load Loss @ 80% of ONAN Rating + No-Load Loss @ 100% Voltage
= _____kW

Load Loss @ 100% of ONAN Rating + No-Load Loss @ 100% Voltage
= *_____kW

Load Loss @ 100% of ONAN/ONAF + No-Load Loss @ 110% Voltage
= _____kW

4.10 Audible sound levels in dB.

At No Load	_____dB
At ONAN/ONAF (with cooling)	_____dB

4.11 Induced voltage test.

One-hour test voltage level	_____kV
Enhanced test voltage level	_____kV
Maximum expected RIV level	_____µV
Maximum expected partial discharge level	_____pC

4.12 Provide information and traceability concerning the testing equipment and methods used to determine the losses and the expected error.

5.0 NITROGEN GAS OIL PRESERVATION SYSTEM

Type _____

Manufacturer _____

Location of Nitrogen Tank _____

Height of Nitrogen Tank base above transformer base (inches) _____in

6.0 ARRESTERS

High Voltage: Type _____

Manufacturer _____

MCOV RATING _____

Low Voltage: Type _____

Manufacturer _____

MCOV RATING _____

7.0 CONTACTS

For Technical Questions:

Name of Person to contact _____

Telephone Number of that person _____

Address _____

_____

For Sales Questions:

Name of Person to contact _____

Telephone Number of that person _____

Address _____

_____

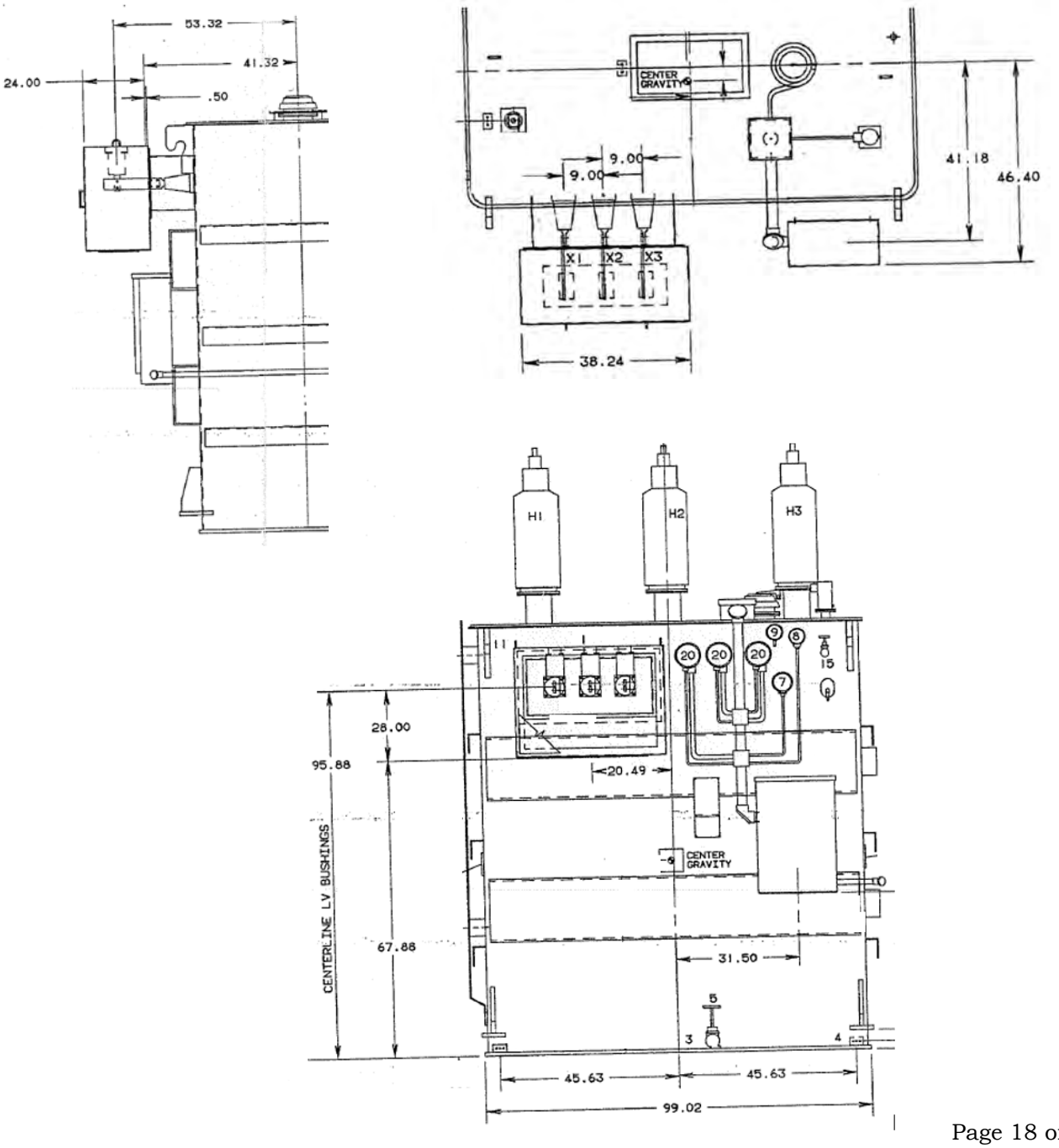
_____

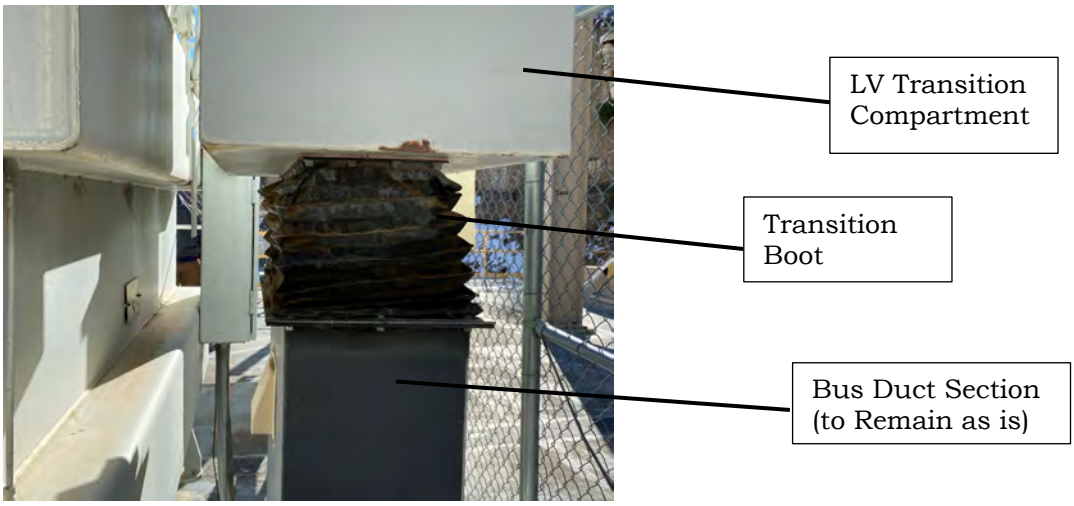
APPENDIX 2

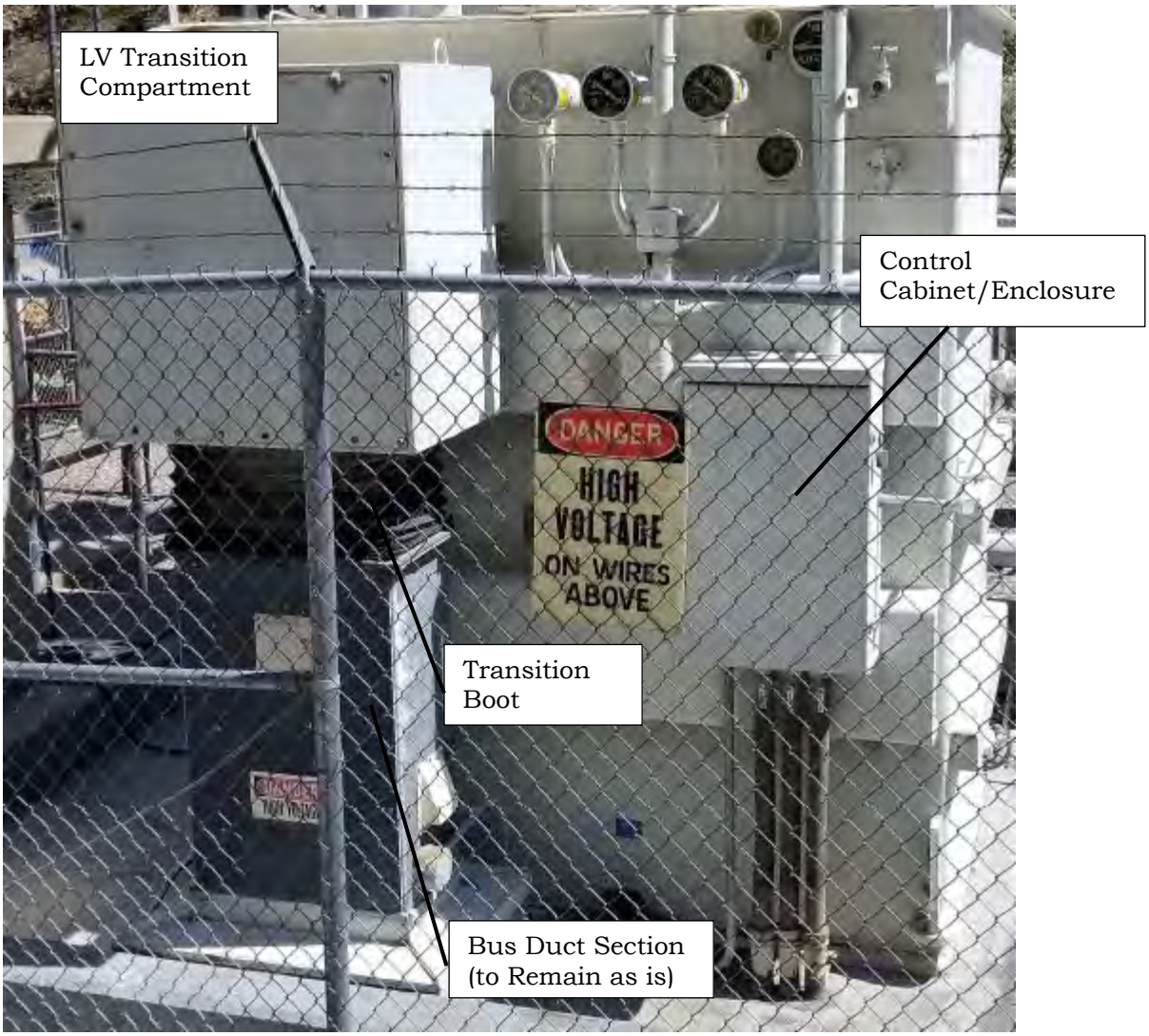
69 kV – 4.16 kV 8.2/10.25 MVA

EXISTING LOW VOLTAGE TRANSITION CABINET DETAILS

The 4.16 kV transition compartment shall be located in segment 1 of the transformer with the following general dimensions in order to facility installation into the existing site layout and bus duct section. Similarly, the control enclosure shall also be located in segment 1 as shown in order to facilitate connections to the existing conduit raceways.




LV Transition Compartment
Transition Boot
Bus Duct Section (to Remain as is)


LV Transition Compartment
Control Cabinet/Enclosure
DANGER
HIGH VOLTAGE
ON WIRES ABOVE
Transition Boot
Bus Duct Section (to Remain as is)

Informational measurements to accompany site pictures and outline drawing/details from original manufacturer of transformer:

- LV Transformer Transition Compartment (with removable cover):
  - 38” wide
  - 24-1/2” deep
  - 38-1/2” tall
- Transition Boot (to include metal connection flanges):
  - 27” wide
  - 16” deep
  - 12-1/2” tall
- Bus Duct Section (to remain as is):
  - 25-1/2” wide
  - 15” deep
  - 43-1/4” tall measured from top of the metal flashing on top of the reinforced concrete “curb” roof penetration
- Control Cabinet/Enclosure (to include latchable door):
  - 20-1/4” wide
  - 10-1/2” deep
  - 34-1/2” tall
  - Sits 40-1/2” off the concrete spill containment floor
  - Contains 1 ea. ½” and 3 ea. 2” conduit penetrations (to be reused)
- Shortest Distance between LV transition box and control box: 22-3/4”
- Distance Center-to-Center between LV Transition & Control Cabinet: approx. 52”

Additional Pictures To Show Transition, Bus Connections and Bus Duct

LV Transition Compartment Showing bus connections and linkages along with support insulators and LV bushings.

LV Transition Compartment Showing bus connections and linkages along with passage from compartment to boot section.

Boot Section and existing bus duct to be reused for new LV transformer connection.

Directions to Los Alamos County – DPU's Hydroelectric Power Plants

- **General Description:**
  - Los Alamos County's (LAC) Department of Public Utilities (DPU) owns and maintains two (2) Hydroelectric Power Plants in rural Northern New Mexico. Both plants reside within our neighboring Rio Arriba County to the North, a 2-3 hour drive north of Albuquerque, NM, depending. This document provides detailed directions to both facilities from multiple origins. A simple Google search should get you in the vicinity. The directions provided here will be from the junction(s) of the 2 major highways nearest the plant(s), as well as links to Google Maps Locations & Directions, as well as pictures of the facilities.

- **Abiquiu Hydroelectric Power Plant**
  - Abiquiu Hydro has no physical address. It is located off of NM 96 at the downstream base of Abiquiu Dam on Abiquiu Lake, NM. This is approximately 55 miles north of Santa Fe, NM and approximately 52 miles south of Chama, NM.
    - ***Google Maps Location: https://goo.gl/maps/NaRt4i7kPzKP6jm66***
  - From Points North, South & East:
    - While nearing Abiquiu Lake when travelling from the North, South or East, you will find yourself on US 84, which is oriented northwest to southeast here. You can see Abiquiu Lake from here.
    - Turn west (right or left, depending) onto NM 96 towards Abiquiu Dam. NM 96 tees into US 84 here, so you can only go west.
    - Go 1.6 miles westerly and southerly on NM 96 to the Dam. Do not cross the Dam. The US Army Corps of Engineers (USACE) Visitor Center will be on the right (towards the lake). Immediately across NM 96 on the left is a sign that reads "Rio Chama Recreation Area" (towards the river) and a road that descends down the downstream face of the Dam. Make a slight left and take this road.
    - The road winds about 0.7 miles down the face of the dam and the Hydro Plant is the large industrial facility located immediately at the bottom within the chain link fence. A blue LAC sign at the gate identifies your destination.
    - Park anywhere inside the yard and come into the large metal building.
    - ***Google Maps Directions: https://goo.gl/maps/Ybq9GziSVwbBmnFY7***
  - From Points West:
    - If travelling to Abiquiu Lake from anywhere to the West, you will find yourself on US 550 about 4 miles north of Cuba, NM as you near the junction to NM 96. US 550 is oriented northwest to southeast here, and on a transition from a north/south to east/west bend.

- Turn northeast (right or left, depending) onto NM 96 towards Regina, NM and Gallina, NM. NM 96 tees into US 550 here, so you can only go northeast.
- Stay on NM 96, travelling northerly at first, then easterly for 47.3 miles to Abiquiu Dam. You will pass through the towns of La Jara, Regina, Gallina and Coyote, NM.
- When you get to Abiquiu Dam, travel north across it to the opposite end. As you cross the dam, you will see your destination down in the river canyon to the right. The US Army Corps of Engineers (USACE) Visitor Center will be on the left (towards the lake). Immediately across NM 96 on the right is a sign that reads "Rio Chama Recreation Area" (towards the river) and a road that descends down the downstream face of the Dam. Make a sharp hairpin turn right and take this road.
- The road winds about 0.7 miles down the face of the dam and the Hydro Plant is the large industrial facility located immediately at the bottom within the chain link fence. A blue sign at the gate identifies your destination.
- Park anywhere inside the yard and come into the large metal building.
- ***Google Maps Directions: https://goo.gl/maps/3epJTpn2mCJfDiTY6***

- **El Vado Hydroelectric Power Plant**
  - El Vado Hydro's physical address is 3070 NM State Rd 112, mile 30.7 El Vado, NM 87575. However, plugging this into Google Maps puts the marker pin slightly off from the entrance gate. It is located off of NM 112 at the downstream base of El Vado Dam on El Vado Lake, NM. This is approximately 105 miles north of Santa Fe, NM and approximately 27 miles southwest of Chama, NM.
    - ***Google Maps Location: https://goo.gl/maps/1PTkA1YK1DUEfM8h7***
  - From Points North, South & East:
    - If travelling to El Vado Lake from the North, South or East, you will find yourself on US 84/64 in the town of Tierra Amarilla, NM as you near the junction to NM 112. US 84/64 is oriented north to south here.
    - Turn southwest (right or left, depending) onto NM 112 towards El Vado Dam. NM 112 tees into US 84/64 here, so you can only go southwest.
    - Go 14.4 miles southwesterly towards El Vado Lake, NM.
    - ***DO NOT TURN RIGHT TOWARDS EL VADO LAKE STATE PARK.*** Go past the turnoff to the park.
    - As you approach the Lake, you'll eventually see the Dam out in front of you. Do not drive up the hill to the Dam. After passing mile marker 31, on the left you'll see the fenced in yard with 2 large red metal carports inside. A blue LAC sign at the gate identifies your destination.
    - Turn left through the gate and follow the road down into the canyon. Park anywhere in the driveway and the office is the white metal building nearest the Dam.
    - ***Google Maps Directions: https://goo.gl/maps/DYv189xZSNkZQmVh6***

- From Points West (Travel Discouraged During/Following Inclement Weather):
  - ***NOTE: When travelling to El Vado from this direction, the final 15.5 miles is a dirt road terminating at El Vado Dam. Portions are considered "all weather" with enough gravel in it, but not all of it. Travel is discouraged when it is muddy. It is typically passable if it is snow packed. Even if dry, it can be rutted and bumpy. Higher clearance and/or 4 wheel drive vehicles are best, but cars travel it all the time too. This route is more scenic, and even 1 hour faster from Albuquerque as opposed to travelling through Santa Fe. We recommend calling the El Vado Operator and inquire about driving conditions prior to committing to this route.***
  - If travelling to El Vado Lake from anywhere to the West, you will find yourself on US 550 about 4 miles north of Cuba, NM as you near the junction to NM 96. US 550 is oriented northwest to southeast here, and is on a transition from a north/south to east/west bend.
  - Turn northeast (right or left, depending) onto NM 96 towards Regina, NM and Gallina, NM. NM 96 tees into US 550 here, so you can only go northeast.
  - Stay on NM 96, travelling northerly for 12.9 miles to the junction of NM 112. You will pass through the towns of La Jara and Regina, NM. As you approach NM 112, NM 96 makes a hard right hand bend from northwest to easterly at this location.
  - Turn left (northwest) and then stay straight northwest onto NM 112 towards El Vado Dam.
  - NM 112 tees into NM 96 at the sharp bend here, so you can only go northeast.
  - Go 29.6 miles northeasterly towards El Vado Lake, NM. At approximately the half-way point, NM 112 transitions from pavement to dirt road.
  - When you get to El Vado Dam, travel northeast across it to the opposite end. As you cross the dam, you will see your destination down in the river canyon to the right.
  - Stay on NM 112 as it transitions back to pavement, and follow the winding road for another 0.4 miles to the Plant entrance.
  - As you approach the entrance on your right, you'll see the fenced in yard with 2 large red metal carports inside. A blue LAC sign at the gate identifies your destination.
  - Turn right through the gate and follow the road down into the canyon. Park anywhere in the driveway and the office is the white metal building nearest the Dam.
  - ***Google Maps Directions: https://goo.gl/maps/VSNPM25BCDPTF9Qp6***

- **NOTES:**
  - The distance between Abiquiu and El Vado Hydro plants is 53.8 miles via NM 96, US 84, US 84/64, NM 531 and NM 112.
    - ***Google Maps Directions: https://goo.gl/maps/LqqCZt9nsRb8de7G9***
  - If you get lost, want to inquire about driving directions, or arrive to find a locked gate, contact the local Power Plant Operator at the following numbers:
    - Abiquiu Hydro:
      - (505) 685–4407 (Primary Landline)
      - (505) 662-8338 (Secondary SCADA line)
    - El Vado Hydro:
      - (575) 588-7826 (Primary Landline)
      - (505) 662-8216 (Secondary SCADA line)
  - If no one answers immediately, leave a message, wait 5 minutes and try again. As a last resort, if no one answers, contact Power Operations Center (Dispatch). They will know the location of all Operators and contact one of them by other means.
    - Dispatch (POC):
      - (505) 667-4058 (Primary)
      - (505) 667-7074 (Secondary)
      - (505) 663-0039 (Secondary)

- **APPENDICES FOLLOWING:**
  - Appendix A: Pictures with Notations

APPENDIX A


NM 96 on Crest of Abiquiu Dam
Turn here towards Rio Chama Recreation Area
USACE Visitor's Center
Abiquiu Lake

ABIQUIU HYDRO PLANT ON THE RIO CHAMA

ABIQUIU HYDRO PLANT ENTRANCE

EL VADO HYDRO PLANT ON THE RIO CHAMA

EL VADO HYDRO PLANT ENTRANCE