

INVITATION TO BID
TRUCKEE MEADOWS WATER AUTHORITY
NRS 332 IN EXCESS OF \$50,000
GENERATOR ADDITIONS PURCHASE
TMWA BID NO.: 2017-012
TMWA CAPITAL PROJECT NO.: 13-0024

RANGE FOR ENGINEER'S ESTIMATE: \$112,500.00 - \$137,500.00

PROJECT SCOPE: Truckee Meadows Water Authority (TMWA) is accepting sealed bids for all labor, materials, equipment, and incidentals required for supplying (1) 30 kW and (3) 60kW, 480Y/277V, 3-phase, diesel engine driven backup power generator sets the Generator Additions Purchase. Delivery of the Generator additions must be on or before August 4, 2017, or as otherwise agreed upon. Delivery of the generator additions shall be to TMWA's Capital Boulevard Warehouse located at 1355 Capital Boulevard, Reno, Nevada 89502.

MANDATORY PRE-BID CONFERENCE: NOT REQUIRED FOR THIS PROJECT

BID DOCUMENTS: All bid documents may be downloaded from TMWA's website at http://tmwa.com/about_us/doingbusinesswithtmwa

BID SUBMITTAL: Sealed bids must be submitted to TMWA by mail to P.O. Box 30013, Reno, Nevada 89520-3013 or in person to 1355 Capital Boulevard, Reno, NV 89502, and must be **RECEIVED BY TMWA NOT LATER THAN 2:00 P.M. on May 22, 2017**. Bids received after the date and time set for receipt will be **REJECTED**.

BID OPENING: **May 22, 2017, at 2:05 P.M.** at the TMWA Conference Room, 1355 Capital Blvd., Reno, NV 89502. TMWA reserves the right to reject any or all bids, including without limitation the right to reject any or all nonconforming, non-responsive, unbalanced, or conditional bids, and to reject the bid of any bidder if TMWA believes that it would not be in the best interest of TMWA to make an award to that bidder. TMWA also reserves the right to waive informalities. Bids will be evaluated as prescribed in Nevada Revised Statute 332.

AWARD DATE: On or before June 2, 2017.

DELIVERY DATE: Sixty-Three (63) calendar days following Notice to Proceed on or about August 4, 2017.

SHIPPING AND DELIVERY: Total bid price shall include shipping, and delivery to TMWA's Capital Boulevard Warehouse located at 1355 Capital Boulevard, Reno, Nevada 89502.

PLANS AND SPECIFICATIONS: Specifications included in bid package.

Bidders are to complete all Bid Submittal Forms, contained on pages 2-10 in the Bid Proposal Form Section of the Bid Documents. The complete Contract Documents must be submitted to comprise a responsive and responsible bid. **A bid bond will not be required for this project.** Addenda, if any, shall be posted on the TMWA web-site at http://www.tmwa.com/about_us/doingbusinesswithtmwa/. It is each bidder's sole responsibility to ensure that they have received all addenda prior to submission of their bid.

QUESTIONS: Questions may be submitted in writing to the Contract Administrator up to three (3) business days before Bid Opening.

Maria I. Dufur, Contract Administrator
Truckee Meadows Water Authority
1355 Capital Boulevard
Reno, NV 89502
(775) 834-8056
Fax (775) 834-8153; e-mail: mdufur@tmwa.com

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INSTRUCTIONS TO BIDDERS

I. BIDDING PROCEDURES

A. Pre-bid Conference – NOT REQUIRED FOR THIS PROJECT

A Pre-bid Conference will be held at the time and place indicated on the Invitation to Bid. The purpose of this conference is to discuss the Project, prospective Bidder concerns, and key issues of the Project. Attendance is mandatory unless otherwise indicated.

B. Designated Contacts

The designated contact for questions pertaining to the Contract Documents, Specifications and/or Drawings is the designated Contract Administrator. All questions should be submitted in writing, and will receive a written response from the Contract Administrator.

Maria I. Dufur
Truckee Meadows Water Authority
P.O. Box 30013
Reno, NV 89502
775-834-8056
FAX No. 775-834-8153
E-mail: mdufur@tmwa.com

C. Interpretations and Addenda

Bidders shall take no advantage of any apparent error or omission in the Bidding Documents. In the event a Bidder discovers such an error or omission, it shall immediately notify the Contract Administrator in writing. Truckee Meadows Water Authority will then make such corrections and interpretations as may be deemed necessary for fulfilling the intent of the Bidding Documents. Any Addendum or written clarification supplementing the Plans, Specifications, and Contract Documents issued prior to the time set for the submittal of Bid Proposal shall be made part of the Contract.

If it becomes necessary to issue a written addendum, a copy will be provided on Truckee Meadows Water Authority Web Site for free download at http://tmwa.com/about_us/doingbusinesswithtmwa. Truckee Meadows Water Authority is not bound by any oral representations, clarifications, or changes made by employees, or representatives, unless such clarification or change is provided to all Bidders in written form. No significant Addendum shall be issued by Truckee Meadows Water Authority less than one (1) working day prior to the advertised date and time for Bid submittal unless the bid date is extended.

Prior to submission of the Bid, each Bidder shall ascertain that it has received all Addenda issued. The Bidder shall acknowledge receipt of all Addenda by completing the acknowledgment space provided on the Bid Schedule.

D. Bid Preparation and Submission

1. Bid proposals are to be submitted on the Bid Schedule provided and must be manually signed by pen by an officer or authorized agent (with attached power of attorney) of the Bidder. All figures must be written in ink or typewritten. Figures written in pencil or erasures are not acceptable. Any interlineation or alteration must be initialed in ink by a person authorized to bind the Bidder to a Contract. If the person making said interlineation or alteration is not the same person who signs the Bid Proposal, such person must write his/her signature and print his/her name and title on each page of the Bid Proposal where initials appear. Written delegation of signature authority to an agent acting on behalf of the Bidder must accompany the sealed Bid and cannot contain any language which states the Bidder retains final approval of acceptance of any of the terms conditions, specifications and/or finalized Contract.

2. Each Bid shall be submitted in a sealed envelope and the envelope must be prominently marked on the lower left corner as follows:

TMWA BID NO.: 2017-012

OPENING: May 22, 2017

COMPANY NAME:

Truckee Meadows Water Authority will not consider a Bid that fails to comply with the above stated requirements. Truckee Meadows Water Authority will not be responsible for the premature opening of a Bid not properly addressed or identified. All Bids must be received prior to the time and date specified in the Invitation to Bid at the following address:

**Truckee Meadows Water Authority
P.O. Box 30013, Reno, NV 89520-3013
or
1355 Capital Boulevard, Reno, NV 89502**

3. If forwarded by mail, the sealed envelope containing the Bid must be enclosed in another envelope addressed as specified. Mailed Bids must be received by Truckee Meadows Water Authority prior to the closing time for receipt of Bids to receive consideration. Email or Facsimile Bids will not be accepted or considered.

E. Documents Necessary for Submittal - BID BOND NOT REQUIRED FOR THIS PROJECT

The Bid Bond and Bid Schedule Form comprise the Bid Proposal and all shall be included in the sealed envelope. Truckee Meadows Water Authority will not consider a Bid received if there is an omission of or failure to complete any portion of the required documents prior to the time of Bid Opening. Do not submit the entire bid book. A separate (loose) Bid bond and Bid Schedule Form are provided in the bid document for bid submission.

F. Bid Security

1. Each Bidder's Proposal must be accompanied by a Cashier's check, Certified Check, or Bid Bond acceptable to Truckee Meadows Water Authority in an amount equal to at least five percent (5%) of the Bidder's "Base Bid" Proposal. Bid Security shall be payable without condition to Truckee Meadows Water Authority as a guarantee that the Bidder, if awarded the Contract, will promptly execute the Contract in accordance with the Bid Proposal and in the manner and form required by the Contract Documents, and will furnish the required Performance and Payment bonds. Should the Bidder refuse to enter into such Contract or fail to furnish such bonds, the amount of the Bid security may be forfeited to Truckee Meadows Water Authority as liquidated damages, not as penalty. All checks must indicate the Payee as "Truckee Meadows Water Authority" and reflect the Bid number. Failure to enclose Bid security with the sealed Bid will cause the Bid to be rejected and not considered.
2. Surety companies issuing bid bonds must be licensed to issue surety by the State of Nevada Insurance Division. Bonds issued by an individual surety are not acceptable to Truckee Meadows Water Authority.
3. Truckee Meadows Water Authority will have the right to hold the Bid security of Bidders to whom an award is being considered until either (a) the Contract has been executed and bonds have been furnished, or (b) the specified time has elapsed so that Bids may be withdrawn, or (c) all Bids have been rejected.

G. Quantities

The quantities given in the Contract Documents or indicated by the unit Bid items are approximate quantities and are intended to illustrate Scope of Work. The Contractor shall be responsible for verifying the exact quantities involved each month through the measurement and payment provisions of the Contract Documents.

H. Compensation

The Total Bid Price shall cover all Work required by the Contract Documents and necessary or reasonably inferable to achieve completion of the Work. All costs in connection with the proper and successful completion of the Work, including furnishing all materials, equipment, supplies, and appurtenances; providing all construction equipment, tools and temporary utilities; and performing all necessary labor and supervision to fully complete the Work, shall be included in the unit and lump sum prices Bid. All Work not specifically identified as a pay item in the Bid Schedule shall be considered a non-compensatory obligation of the Contractor, and all costs in connection therewith shall be deemed included in the prices otherwise Bid.

I. Schedule of Values

The purpose of the Schedule of Values shall serve Truckee Meadows Water Authority in two (2) distinct areas:

1. PRIOR TO AWARD OF BIDS - Truckee Meadows Water Authority may request a Schedule of Values for any or all item(s) included in the Bid schedule for the purpose of determining an unbalanced Bid. The analysis shall be conducted by Truckee Meadows Water Authority. All prospective Bidders may be required to prepare a Schedule of Values, and it shall be the Bidder's responsibility to verify the quantities as shown on the Drawings before preparing his Bid. The schedule as shown in the Bid Schedule does not constitute a complete outline of the Work to be performed by the Contractor in accordance with the Contract Drawings and Specifications. This list is intended to include all major items, and the Bid computed there from will be the maximum compensation for all work and materials furnished by the Contractor in order to comply with the Contract Drawings and Specifications, whether or not indicated in the approximate quantities or pertaining to the items of Work listed therein
2. AFTER AWARD OF BID - Truckee Meadows Water Authority will request a Schedule of Values for any or all item(s) included in the Bid schedule for the purpose of making partial payments to the Contractor.

Under no circumstances may any Bid item reflected as LUMP SUM or otherwise be increased or decreased as a result of the Lump Sum Bid breakdown analysis.

J. Validity of Bid

Truckee Meadows Water Authority reserves the right to withhold award of this Contract for a period of thirty (30) days from the date of the Bid opening. The Bidder acknowledges in submitting his/her Bid that all prices listed in the Bid Proposal are valid for a period of not less than thirty (30) days from the date of the Bid Opening.

K. Bidders Representation

Each Bidder by submitting its Bid represents and warrants that:

1. The Bidder, by submission of his Bid, confirms it has familiarized itself with the Invitation to Bid, Plans, Specifications, and Contract Documents and has found them fit and sufficient for the purpose of preparing his Bid. Bidder agrees to all the terms and conditions of the Contract and further agrees that no claim will be made against Truckee Meadows Water Authority, the Project Representative, or the Design Consultant for any damage that he or his subcontractors may have suffered due to the inadequacy of his Bid on account of any alleged errors, omissions, or other deficiencies in the Notice To Contractors, Plans, Specifications, or Contract Documents supplied to him by Truckee Meadows Water Authority.
2. The submission of a Bid shall constitute an acknowledgment upon which Truckee Meadows Water Authority may rely that the Bidder has thoroughly examined and is familiar with the Contract Documents. The Bidder shall in no way be relieved from any obligation with respect to its proposal or to the Contract. ***No claim for additional compensation will be allowed which is based upon a lack of knowledge of the Contract Documents.***
3. The Bidder has inspected the site(s) of the Work and is fully satisfied, by personal examination or by other means, of the locations of the proposed Work, of the actual conditions, including subsurface conditions, of and at the site(s) of the Work. If, during the course of its examinations, a Bidder finds facts or conditions which appear to be in conflict with the letter or spirit of the Bidding documents before submitting his/her bid, the Bidder shall request Truckee Meadows Water Authority, in writing, to provide additional information and explanation.
4. Submission of a Bid by a Bidder shall constitute conclusive evidence that the Bidder has relied solely and exclusively on its own examination of (1) the site of the Work, (2) access to the site, (3) all other data and matters requisite to the fulfillment of the Work and on its own knowledge of existing facilities on and in the vicinity of the site of the Work to be constructed under the Contract, (4) the conditions to be encountered, (5) the character, quality and scope of the proposed Work, (6) the quality and quantity of the materials to be furnished, and (7) the requirements of the Bid, the Drawings and Specifications. The Bidder is aware that soil classifications do not represent any particular stability or drainability characteristics, and are aware that water table levels can vary. ***No claim for additional compensation will be allowed which arises because of Bidder's failure to examine or become fully aware of the items in this paragraph.***
5. The information provided by Truckee Meadows Water Authority is provided for informational purposes only, without representation or warranty of any kind with respect to its accuracy or completeness, and is not intended to and shall not be relied upon as a substitute for, or a supplement to, the independent investigation by the Bidder of site conditions.
6. The Bidder, by signing the Bid Schedule, agrees that all material and workmanship on this Project shall meet or exceed OSHA standards and NOSHA standards.
7. The Bidder is qualified and possesses, at the time of the Bid submittal, a valid contractor's license for this particular Work (both as to type and available dollar limit) issued by the Nevada State Contractor's Board. Nevada Contractor's License type, number, expiration date and dollar limit must be indicated on the Bid Schedule. The Bidder and their subcontractors shall comply with all provisions of NRS Chapter 624 and Nevada Administrative Code, Chapter 624, to the extent applicable. Truckee Meadows Water Authority will not consider any Bid that fails to comply with these requirements.
8. The Bidder has a valid Business License and shall submit a copy with the bonds and Contract after award of contract.

9. The Bidder has appropriate work experience to be qualified to construct the Work. Bidder has successfully constructed at least three similar projects of equal or greater size, scope, type, cost, and complexity within the previous seven years. A similar project is one of the same category as this Project, defined for purposes of this paragraph as Diesel-Engine-Driven Generator Sets. Bidders must have such prior work experience in order to be deemed responsive or responsible for purposes of bid evaluations. TMWA considers it critical to public health and safety and in the best interests of TMWA that this work only be performed by contractors holding such prior experience.

a. Evidence of the Contractor's required project experience shall be provided in the reference section of the Proposal Summary section (additional sheets may be attached as necessary).

b. The requirements for submittal of required project experience also apply to proposed Subcontractors performing specialty work, including piping, control valve, electrical, power, telemetry, and equipment control work. Subcontractor experience shall be provided with submission of the final subcontractor list.

TMWA will determine in its sole and absolute discretion whether a Contractor is responsible, properly licensed, and has the requisite work experience required above to be eligible to perform this Project. Bids by Contractors that lack the proper license or requisite work experience set forth above will be rejected as non-responsive, non-responsive, and/or not in the best interests of TMWA

II. OPENING OF BIDS

A. Opening of Bids.

All Bids received on time and that comply with these requirements will be opened and publicly read aloud at the time and place set forth in the Invitation to Bid. Bidders, their representatives, and all other interested persons may be present at the opening and reading of Bids. Any Bids received after the time for receiving and opening Bids, as set forth in the Notice To Bidders and any Addendum, will not be considered. Any such Bids will be returned unopened to the Bidder.

B. Mistake In Bid

A request for withdrawal of a Bid due to a purported error shall not be considered unless it is given in writing to the Contract Administrator by the Bidder within forty-eight (48) hours after opening of the bid. Any such request shall contain a full explanation of any purported error and shall be supported by the original calculations on which the Bid was computed, together with a certification and notarization thereon that such calculation is the original as prepared by the Bidder or his agent.

In the case of a difference between written words and figures, the amount stated in written words shall govern for a Lump Sum Bid.

In the case of a difference between Unit Price and the extended price, the Unit Price shall govern.

C. Withdrawal of Bid

Before Bid Opening - A Bidder may request withdrawal of his/her posted, sealed Bid prior to the scheduled Bid opening time provided the request is submitted to the Contract Administrator's Office in writing or an authorized representative must present himself with proper identification to the Contract Administrator's office and verbally request that the Bid be withdrawn.

After Bid Opening - No Bids may be withdrawn for a period of thirty (30) calendar days after the date of Bid opening, except as set forth in A above. All responsive and responsible Bids received are considered firm offers for the time period specified above and may be considered for award. The Bidder's offer will expire at the time specified above or upon acceptance by Truckee Meadows Water Authority, which occurs when the successful Bidder provides the bonds, insurance, and submits the signed Contract to Truckee Meadows Water Authority for execution and Truckee Meadows Water Authority executes the Contract.

III. AWARD OF CONTRACT/REJECTION OF BIDS/DISQUALIFICATION OF BIDDERS

A. Award of Contract

Truckee Meadows Water Authority will award the Contract pursuant to the provisions of State law including but not limited to:

- (a) Chapter 332 (Purchasing: Local Governments)
- (b) Chapter 339 (Contractor's Bonds)
- (c) Chapter 624 (Contractors).

B. Rejection of Bids

Truckee Meadows Water Authority reserves the right to waive any informality or irregularity in any Bid received, and to reject any or all Bids. In the case of rejection of all Bids, Truckee Meadows Water Authority reserves the right to advertise for new Bids or to proceed to do the Work otherwise if it is in the best interest of Truckee Meadows Water Authority.

C. Irregular Bid

A Bid shall be considered irregular for the following reasons, any one or more of which may be cause for rejection:

- 1. If the Bid Schedule furnished by Truckee Meadows Water Authority is not used or is altered.
- 2. If there are unauthorized additions, conditional or alternate Bids, or omissions or irregularities of any kind which may tend to make the Bid incomplete, indefinite or ambiguous as to its meaning, or give the Bidder submitting the same an unfair competitive advantage over other Bidders.
- 3. If the Bid submitted contains any erasure, interlineations, or other corrections unless each such correction is prepared and authenticated in acceptance with the provisions of Paragraph IB.1.E (1).

D. Unbalanced Bid

If the Unit Bid Item prices and/or schedule of values of a prospective Bidder's Bid are obviously unbalanced, either in excess or below the reasonable cost analysis values, the Bid may be rejected. All Bids with separately priced line items shall be analyzed to determine if the prices are unbalanced. A bid may be rejected if Truckee Meadows Water Authority determines that the lack of balance poses an unacceptable risk to Truckee Meadows Water Authority.

A Bid with unbalanced pricing may increase performance risk and could result in payment of unreasonably high prices. Unbalanced pricing exists when, despite an acceptable total evaluated price, the price of one or more bid items is significantly over or understated as indicated by the application of cost or price analysis techniques. The greatest risks associated with unbalanced pricing occur when:

- 1. Over pricing of startup work, mobilization, or early items of work (front end loading) would cause a bidder to receive substantial up-front payment;
- 2. Base quantities and option quantities are separate line items;
- 3. The quantities as bid are incorrect and the contract cost will be increased when quantities are corrected; or
- 4. On items where the quantities may vary, if the anticipated variation in quantity would result in the lower Bidder not remaining as the low Bidder.

E. Disqualification of Bidders

Any one or more of the following may be considered as sufficient for the disqualification of a prospective Bidder and the rejection of the Bid:

1. The Bidder is not responsive or responsible;
2. The quality of the services, materials, equipment or labor offered does not conform to the approved Contract plans and specifications;
3. Evidence of collusion among prospective Bidders; (Participants in such collusion will receive no recognition as Bidders)
4. Lack of contractor's license classification required by Truckee Meadows Water Authority for this Work;
5. More than one Bid for the same work from an individual, firm, or corporation under the same or different name;
6. Lack of competency, understanding of the scope of the Work, adequate machinery, plant and/or equipment as revealed by the requested experience or subcontractor information;
7. Unsatisfactory performance record as shown by past work for Truckee Meadows Water Authority, judged from the standpoint of workmanship, progress, and quality of services/goods provided;
8. Uncompleted work which, in the judgment of Truckee Meadows Water Authority, might hinder or prevent the prompt completion of additional work, if awarded;
9. Failure to pay or satisfactorily settle all bills due for labor and material on any contract(s);
10. Failure to comply with any requirements of Truckee Meadows Water Authority;
11. Failure to list, as required, all subcontractors who will be employed by the Bidder;
12. Negative actions against the Contractor's license by the Nevada State Contractor's Board; or
13. Any other reason determined, in good faith, to be in the best interest of Truckee Meadows Water Authority.

IV. BID PROTESTS

The Truckee Meadows Water Authority Contracts Division will post the recommendation for award of this Contract on the website: http://www.tmh2o.com/about_us/doingbusinesswithtmwa/ . Any Bidder which submitted a bid to TMWA may protest the recommendation for award in accordance with the procedures set forth in NRS 338.142 as if such procedures applied to a contract awarded under NRS 332. The protest must be submitted in writing to TMWA's Purchasing and Contracts Administrator. In addition to any other information required by law, the protest shall include the following information:

1. The alleged violations(s) of: (a) Contract Documents referencing page number, item, and paragraph; (b) Nevada Revised Statutes referencing the specific chapter, section, and subsection; or (c) Local codes or ordinances referencing section number; and
2. Supporting documentation such as Nevada State Contractors Board licensing information or other detailed proof to substantiate the protest.

The Bidder filing the protest shall, at the time the protest is filed, post a bond with a good and solvent surety authorized to do business in the state of Nevada, or submit a cashier's check, money order, or certified check, to TMWA who will hold the bond or other security until a determination is made on the protest. The bond or other security submitted with the protest shall be in an amount equal to the lesser of 25 percent of the total Base Bid submitted by the Bidder filing the protest, or \$250,000.00.

If the protest is upheld, the bond or other security will be returned to the Bidder who submitted the protest. If the protest is rejected, a claim may be made by TMWA against the bond or other security in an amount equal to the expenses incurred by TMWA because of the unsuccessful protest. Any money remaining after the claim has been satisfied will be returned to the Bidder who posted the bond or submitted the security.

The protest filed in accordance with these provisions operates as a stay of action in relation to award of the Contract until a determination is made by TMWA on the protest.

An unsuccessful Bidder may not seek any type of judicial intervention until TMWA has made a determination on the protest and awarded the Contract.

TMWA will not be liable for any costs, expenses, attorney's fees, loss of income, or other damages sustained by a Bidder, whether or not the Bidder files the protest.

TMWA's Administrator of Purchasing and Contracts will promptly issue a decision in writing to the protester and any other party intervening. If the protester or any other intervening party wishes to appeal the decision rendered by TMWA's Administrator of Purchasing and Contracts to the TMWA Board, such appeal shall be made within 48 hours from receipt of the decision by submitting a notice of appeal in writing to TMWA's Administrator of Purchasing and Contracts.

An award recommendation will be made and presented to the Truckee Meadows Water Authority for a final decision. TMWA will not consider protests unless the procedures specified in this Section are followed.

V. BID PREPARATION EXPENSES

By accepting the Bid Proposal of the Bidder, Truckee Meadows Water Authority assumes no obligation to reimburse the Bidder for Bid preparation expenses. No Bidder shall have any right or claim against Truckee Meadows Water Authority for reimbursement of Bid preparation expenses.

VI. COLLUSION, DISCRIMINATION, AND/OR PRICE FIXING

The Bidder certifies that any and all prices which he may charge under the terms of the Contract do not, and will not, violate any existing federal, state or municipal laws or regulations concerning discrimination and/or price fixing. The Bidder agrees to indemnify, exonerate and hold Truckee Meadows Water Authority harmless from liability for any such violation now and throughout the term of the Contract.

VII. CONTRACT AWARD

A. Method of Award. The Bid, if awarded, will be awarded to the lowest responsive and responsible Bidder. Bidder must bid all items to be responsive and considered for award.

B. Time of Award. The award, if made, will be within thirty (30) calendar days after the opening of Bids. Truckee Meadows Water Authority reserves the right to accept or reject any or all Bids received.

C. Bonds. NOT REQUIRED FOR THIS PROJECT

The successful contractor will be required to provide the Bonds as indicated in Article 5 of the General Conditions.

D. Insurance. REFER TO THE PURCHASE AGREEMENT

Insurance as described in the General Conditions shall be required of the Contractor not later than ten (10) calendar days after receipt of the Notice of Award. The Contractor shall procure and maintain, at its own expense, all the insurance required as stated herein, and shall submit coverage verification (certificates) for review and approval by Truckee Meadows Water Authority. A Notice to Proceed may be issued prior to receipt of the required insurance, bonds, and signed contracts starting the time for contract performance on the project, however, the Contractor will not be permitted to work prior to Truckee Meadows Water Authority's receipt and approval of the insurance, bonds and signed contract. Said certificates shall be specific to the project and all notices regarding insurances shall be delivered to:

Truckee Meadows Water Authority
Attn: Maria Dufur, New Business Project Coordinator
P. O. Box 30013
Reno, NV 89520

The Notice to Proceed shall not be issued and Contractor shall not commence work, until such insurance has been approved by Truckee Meadows Water Authority. The Contractor shall not allow any subcontractors to commence work on its subcontract until all similar insurance required of the subcontractor has been obtained and verified by Contractor. Such insurance shall remain in full force and effect at all times during the execution of the Work and until the final completion and acceptance thereof and at all times thereafter as dictated in this Contract and the General Conditions.

If the Contractor fails to maintain any of the insurance coverage required herein, Truckee Meadows Water Authority will have the option to declare the Contractor in breach, or may purchase replacement insurance or pay the premiums that are due on existing policies in order that the required coverage may be maintained. The Contractor is responsible for any expenses paid by Truckee Meadows Water Authority to maintain such insurance and Truckee Meadows Water Authority may collect the same from the Contractor or deduct the amount paid from any sums due the Contractor under the Contract.

The insurance requirements specified herein do not relieve the Contractor of responsibility or limit the amount of liability to Truckee Meadows Water Authority or other persons, and the Contractor is encouraged to purchase such additional insurance as he deems necessary.

E. Penalty for Collusion. If, at any time, it is found that the Contractor has, in presenting any bid or bids, colluded with any other party or parties, then the Contract shall be null and void, and the Contractor and its sureties shall be liable for loss or damage which Truckee Meadows Water Authority may suffer thereby, and Truckee Meadows Water Authority may advertise for new bids for said Work. The Contractor further certifies that any and all prices which he may charge under the terms of the Contract do not, and will not, violate any existing Federal, State or Municipal laws or regulations concerning discrimination and/or price fixing.

F. Copeland Anti-Kickback Law. The Contractor shall comply with the Copeland Anti-Kickback Act (19 U.S.C. 874) as supplemented in the Department of Labor Regulations (29 CFR Part 3). This act provides that each Contractor or subcontractor shall be prohibited from inducing by any means, any person employed in the construction, completion or repair of public facilities, to give up any part of the compensation to which he is otherwise entitled.

G. Media Contact. The Contractor shall immediately contact the TMWA Project Manager assigned to them, if they are approached by the media while working on any TNWA project.

END OF INSTRUCTIONS TO BIDDERS

BID PROPOSAL FORMS

BID BOND – NOT REQUIRED FOR THIS PROJECT

KNOW ALL MEN BY THESE PRESENTS, that I/We _____

as Principal, hereinafter called Contractor, and

a corporation duly organized or authorized to do business under the laws of the State of Nevada, as Surety, hereinafter called the Surety, are held and firmly bound unto Truckee Meadows Water Authority, a joint powers authority created pursuant to NRS Chapter 277, for the sum of \$ _____ Dollars

(state sum in words)

for the payment whereof Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents. This bond shall be governed by the laws of the State of Nevada.

WHEREAS, the Principal has submitted a bid, identified as **TMWA Bid #2017-005** and titled "**Glendale WTF 1.5 MW Diesel Generator Purchase.**"

NOW, THEREFORE if Truckee Meadows Water Authority shall accept the bid of the Principal and the Principal shall enter into a contract with Truckee Meadows Water Authority in Accordance with the terms of such bid, and give such bond or bonds as may be specified in the bidding or Contract Documents with good and sufficient surety for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof, or in the event of the failure of the Principal to enter such Contract and give such bond or bonds, if the Principal shall pay to Truckee Meadows Water Authority the difference not to exceed the penalty hereof between the amount specified in said bid and such larger amount for which Truckee Meadows Water Authority may in good faith contract with another party to perform work covered by said bid or an appropriate liquidated amount as specified in the Invitation for Bids then this obligation shall be null and void, otherwise to remain in full force and effect.

Executed on this _____ day of _____, 20____

(Signature of Principal)

Name: _____

Title: _____

(Seal)

Firm: _____

Address: _____

City/ State / Zip Code: _____

Written Name of Principal: _____

(Signature of Notary)

ATTEST NAME: _____

Subscribed and sworn before me this _____ day of _____, 20____

(printed name of notary)

Notary Public for the State of _____

| | |
|--|--|
| Claims Under This Bond May Be Addressed To: | |
| Name of Surety | |
| Address | |
| City | |
| State/Zip Code | |
| Name | |
| Title | |
| Phone | |
| Surety's Acknowledgment | |

NOTICE: No substitution or revision to this bond form will be accepted. Sureties must be authorized to do business in and have an agent for service of process in the State of Nevada. Certified copy of Power of Attorney must be attached.

BID SCHEDULES
(Cont)

BID SCHEDULES

TMWA BID NO.: 2017-012

BID TITLE: Generator Additions Purchase

NOTICE: No substitution or revision to this Bid Schedule form will be accepted. Truckee Meadows Water Authority will reject any Bid that is received that has changes or alterations to this document. Prevailing Wages do not apply to this project.

PRICES must be valid for 30 calendar days after the bid opening.

COMPLETION of this project is expected **PURSUANT TO CONTRACT DOCUMENTS.**

BIDDER acknowledges receipt of _____ Addendums.

Item pricing on this schedule is for use in preparing the schedule of values that will be used as a basis for partial payment during construction and for internal TMWA use. Item descriptions are not intended to be all inclusive. Bidders shall include costs for work not specifically mentioned in the most appropriate item.

Refer to Article 7 of the General Conditions for a list of items that may be included in the mobilization bid item. TMWA reserves the right to perform extra work using time and expense or negotiated lump sum procedures.

The Contract Sum will be adjusted (increased or decreased) for actual quantities per unit price items. Lump sum items will not be adjusted.

Compliance with all permit and environmental requirements is incidental to the Work. No separate bid item, or additional payment provisions, shall be made for operational constraints or conditions placed on the Work by permitting agency requirements.

(signature)

SUMMARY

| Description | Scheduled Value | Unit | Unit Price | Total Price |
|--|-----------------|------|------------|-------------|
| 1. Supply 30 kW backup power generator set, with 60 amp mainline circuit breaker and sound-attenuated, weather-proof enclosure rated for a maximum of 63 dBA, per Technical Specification Section 26 32 13.13 Diesel-Engine-Driven Generator Sets | 1 | EA | | |
| 2. Supply 60 kW backup power generator set, with 100 amp mainline circuit breaker and sound-attenuated, weather-proof enclosure rated for a maximum of 71 dBA, per Technical Specification Section 26 32 13.13 Diesel-Engine-Driven Generator Sets | 2 | EA | | |

BID SCHEDULES
(Cont)

| Description | Scheduled Value | Unit | Unit Price | Total Price |
|--|-----------------|------|------------|-------------|
| 3. Supply 60 kW backup power generator set, with 100 amp mainline circuit breaker and sound-attenuated, weather-proof enclosure rated for a maximum of 66 dBA, per Technical Specification Section 26 32 13.13 Diesel-Engine-Driven Generator Sets | 1 | EA | | |
| BID PRICE SHALL EXCLUDE SALES TAX | | | | |
| TOTAL BID PRICE | | | | |

Total Bid Price Written in Words: _____

Notes to Bid Schedule:

1. Bid Prices shall include delivery to the TMWA Capital Boulevard Warehouse, located at 1355 Capital Blvd., Reno, NV 89502
2. Bid Prices shall exclude sales tax

BID SCHEDULES
(Cont)

BIDDER INFORMATION:

| |
|---------------------------------------|
| Company Name: |
| Address: |
| City: |
| State / Zip Code: |
| Telephone Number including area code: |
| Fax Number including area code: |
| E-mail: |

LICENSING INFORMATION:

| |
|--|
| Nevada State Contractor's License Number: - NOT REQUIRED FOR THIS PROJECT |
| License Classification(s): |
| Limitation(s) of License: |
| Date Issued: |
| Date of Expiration: |
| Name of Licensee: |
| City, State, Zip Code of Licensee: |
| Telephone Number of Licensee: |

| |
|------------------------------------|
| Business License Number: |
| Date Issued: |
| Date of Expiration: |
| Name of Licensee: |
| City, State, Zip Code of Licensee: |
| Telephone Number of Licensee: |

| |
|---------------------------------|
| Taxpayer Identification Number: |
|---------------------------------|

BID SCHEDULES
(Cont)

DISCLOSURE OF PRINCIPALS:

1. Individual and/or Partnership:

| |
|------------------------|
| Owner 1) Name: |
| Address: |
| City, State, Zip Code: |
| Telephone Number: |
| |
| Owner 2) Name: |
| Address: |
| City, State, Zip Code: |
| Telephone Number: |
| |
| Other 1) Title: |
| Name |
| |
| Other 2) Title: |
| Name: |

2. Corporation:

| |
|---|
| State in which Company is Incorporated: |
| Date Incorporated: |
| Name of Corporation: |
| Address |
| City, State, Zip Code: |
| Telephone Number: |
| President's Name: |
| Vice-President's Name: |
| Other 1) Name: |
| Title: |
| Other 2) Name: |
| Title |

BID SCHEDULES
(Cont)

MANAGEMENT AND SUPERVISORY PERSONNEL:

| Persons and Positions | Years With Firm |
|-----------------------|-----------------|
| Name | |
| Title | |
| Name | |
| Title | |
| Name | |
| Title | |

(If additional space is needed, attach a separate page)

REFERENCES: NOT REQUIRED FOR THIS PROJECT

1. **Instructions:**

List at least three (3) contracts of a similar nature performed by your firm in the last three (3) years. If **NONE**, use your Company's letterhead (and submit with your bid proposal) a list what your qualifications are for this contract. Truckee Meadows Water Authority reserves the right to contact and verify, with any and all references listed, the quality of and the degree of satisfaction for such performance. See the Supplemental Conditions for the TMWA Project Category required for this project.

2. **Clients:** (if additional space is needed attach a separate page)

| | |
|-----------------------------------|-----------------|
| Owner's Representative : | Telephone # |
| Address (inc. City, State & Zip): | |
| Owner's Representative's E-mail: | |
| Superintendent: | |
| Amount of Contract: | Date Completed: |
| Project Title: | |
| TMWA Project Category: | |
| | |
| Owner's Representative : | Telephone # |
| Address (inc. City, State & Zip): | |
| Owner's Representative's E-mail: | |
| Superintendent: | |
| Amount of Contract: | Date Completed: |
| Project Title: | |
| TMWA Project Category: | |

BID SCHEDULES
(Cont)

| | |
|-----------------------------------|-----------------|
| Owner's Representative : | Telephone # |
| Address (inc. City, State & Zip): | |
| Owner's Representative's E-mail: | |
| Superintendent: | |
| Amount of Contract: | Date Completed: |
| Project Title: | |
| TMWA Project Category: | |
| | |
| Project Name: | |
| Owner's Representative : | Telephone # |
| Address (inc. City, State & Zip): | |
| Owner's Representative's E-mail: | |
| Superintendent: | |
| Amount of Contract: | Date Completed: |
| Project Title: | |
| TMWA Project Category: | |
| | |
| Project Name: | |
| Owner's Representative : | Telephone # |
| Address (inc. City, State & Zip): | |
| Owner's Representative's E-mail: | |
| Superintendent: | |
| Amount of Contract: | Date Completed: |
| Project Title: | |
| TMWA Project Category: | |
| | |

BID SCHEDULES
(Cont)

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS PRIMARY COVERED TRANSACTIONS

1. The prospective primary participant certifies to the best of its knowledge and belief, that it and its principals:
 - a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any Federal, State or Local department or agency.
 - b) Have not within a three-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 not presently indicted for or otherwise criminally or civilly charged by a government entity (Federal, State or Local) with commission of any of the offenses enumerated in paragraph (1)(b) of this certification; and
 - d) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or Local) terminated for cause or default.

2. Where the prospective primary participant is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

| | |
|---|-------|
| Signature of Authorized Certifying Official | Title |
| Printed Name | Date |

I am unable to certify to the above statement. My explanation is attached.

| | |
|-----------|------|
| Signature | Date |
|-----------|------|

BIDDER’S SAFETY INFORMATION – NOT REQUIRED FOR THIS PROJECT

Bidder’s Safety Factors:

| Year | “E-Mod” Factor ¹ | OSHA Incident Rate ² |
|--|-----------------------------|---------------------------------|
| 2015 | | |
| 2016 | | |
| ¹ E-Mod (Experience Modification) Factors are issued by the National Council on Compensation Insurance (NCCI). ² OSHA Incident Rate is the number of OSHA Recordable Accidents multiplied by 200,000 and then dividing that result by the total number of annual man-hours. Please refer to the U.S. Department of Labor Occupational Safety and Health Administration’s website for calculating worksheets and current requirements. | | |

("SAMPLE")
PURCHASE AGREEMENT
(NRS 332)

GENERATOR ADDITIONS PURCHASE
TMWA Bid No.: 2017-012
TMWA Capital Project No.: 13-0024

THIS EQUIPMENT/PRODUCT PURCHASE AGREEMENT (also herein referred to as "Contract"), made and entered into this _____ day of _____, 20____, by and between the Truckee Meadows Water Authority hereinafter called "TMWA" and _____, hereinafter called the "Supplier".

WITNESSETH, that TMWA and the Supplier, for the consideration hereinafter named, agree as follows:

Article 1 Scope of Work

The Supplier shall provide all all labor, materials, equipment/products, and incidentals required for supplying (1) 30 kW and (3) 60kW, 480Y/277V, 3-phase, diesel engine driven backup power generator sets (Generators) as provided in the specifications and provide all of the equipment and services described in the specification prepared by TMWA (Exhibit "A" attached hereto) and as amended by specific addenda, and shall do everything required by this Agreement in furnishing the Generators.

Delivery of the Generators shall be to TMWA's Capital Boulevard Warehouse located at 1355 Capital Boulevard, Reno, Nevada 89502.

Article 2 Contract Time, Guaranteed Delivery Date, and Liquidated Damages

Supplier agrees to deliver the Generators, in a good and satisfactory condition, pursuant to the Specification to the TMWA Capital Boulevard Warehouse located at 1355 Capital Boulevard, Reno, Nevada 89502 no later than **Sixty-Three (63) Calendar Days** following the issuance of the Notice to Proceed, unless otherwise agreed to between the parties, which is the Guaranteed Delivery Time as defined in the Bid Package.

TMWA and Supplier recognize that time is of the essence of this Agreement.

Article 3 The Contract Sum

TMWA shall pay Supplier, as full compensation for furnishing the Generators, services, and other specified items in accordance with the Contract Documents and to the satisfaction of TMWA, the lump sum amount of:
_____ (\$ _____)

Dollars

Article 4 Payment

Payment for the Generators described on the Bid Schedule will be made within 30 days of the later of: i) inspection by TMWA and acceptance of delivery of such Generators; or ii) receipt of an invoice for the Generators.

Article 5 Acceptance and Final Payment

Testing and acceptance of the Generators shall be as specified in the Specifications, Bid and Contract Documents. Acceptance of final payment by the Supplier shall constitute a full waiver and release by the Supplier of all claims against TMWA arising out of or relating to this Agreement.

Article 6 The Contract Documents

The following is an enumeration of the Contract Documents that are fully a part of the Contract as if herein repeated:

1. Bid Documents and Bid Form
2. Agreement
3. Specifications
4. Addenda

Article 7 Warranty

Supplier warrants that the Generators furnished under the Contract will be of good quality and new and that the Generators will be free from defects and will conform with the requirements of the Specifications, Bid and Contract Documents.

Article 8 Indemnification/Hold Harmless

Notwithstanding any provision to the contrary in the Contract Documents, TMWA waives any requirement that the Supplier on this bid provide insurance (other than property insurance insuring risk of loss until delivery and acceptance by TMWA) in connection with the delivery of the Generators.

Article 9 Performance Bond – NOT REQUIRED FOR THIS PROJECT

Article 10 Termination

In addition to other provisions of this Agreement, TMWA may terminate the Agreement in accordance with the procedures specified in the Bid Documents, Bid Form, Specifications and Contract upon giving Supplier seven (7) day notice in writing.

Article 11 Governing Law

This Agreement shall be governed by, interpreted under and construed and enforced in accordance with the laws of the State of Nevada, with venue in the County of Washoe. Each of the parties hereto acknowledge and agree that the laws of the State of Nevada and the selection of venue in the County of Washoe were freely chosen by the parties hereto.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement the day and year first above written.

TRUCKEE MEADOWS WATER AUTHORITY

Dated: _____, 20__ By: _____
General Manager

ATTEST: _____
TMWA Clerk

Dated: _____, 20__ Supplier:
By: _____
Name: _____
Title: _____

STATE OF NEVADA)
) ss:
COUNTY OF WASHOE)

On this _____ day of _____, 20__, personally appeared before me, a Notary Public, _____, who acknowledged to me that he/she executed the foregoing Agreement for Equipment/Product as the authorized representative of the Supplier.

Notary Public

ATTACHMENT "A"

SECTION 26 32 13.13

DIESEL-ENGINE-DRIVEN GENERATOR SETS

EQUIPMENT PURCHASE SPECIFICATION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes diesel engine generator set, exhaust silencer and fittings, enclosure, fuel fittings, base fuel tank, battery, and charger.

1.2 REFERENCES

- A. National Electrical Manufacturers Association:
 - 1. NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum).
 - 2. NEMA AB 1 - Molded Case Circuit Breakers and Molded Case Switches.
 - 3. NEMA ICS 10 - Industrial Control and Systems: AC Transfer Switch Equipment.
 - 4. NEMA MG 1 - Motors and Generators.
- B. International Electrical Testing Association:
 - 1. NETA ATS - Acceptance Testing Specifications for Electrical Power Distribution Equipment and Systems.
- C. National Fire Protection Association:
 - 1. NFPA 30 - Flammable and Combustible Liquids Code.
 - 2. NFPA 110 - Standard for Emergency and Standby Power Systems.

1.3 SYSTEM DESCRIPTION

- A. Description: Standby diesel engine driven generator set to serve continuously during interruption of prime electrical power and required auxiliaries, accessories, and controls to provide source of power, as specified herein, and in accordance with NFPA 110.
- B. Capacity: Reference Bid Schedule for required kW.

1.4 SUBMITTALS

- A. Shop Drawings: Indicate electrical characteristics and connection requirements. Include plan and elevation views with overall and interconnection point dimensions, fuel consumption rate curves at various loads, ventilation and

combustion air requirements, electrical diagrams including schematic and interconnection diagrams.

- B. Product Data: Submit data showing dimensions, weights, ratings, interconnection points, and internal wiring diagrams for engine, generator, control panel, battery, battery rack, battery charger, enclosure, vibration isolators and base tank.
- C. Test Reports: Indicate results of performance testing.
- D. Manufacturer's Field Reports: Indicate inspections, findings, and recommendations.

1.5 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: Submit instructions and service manuals for normal operation, routine maintenance, oil sampling and analysis for engine wear, and emergency maintenance procedures.
- B. Manufacturer's Warranty: Submit written manufacturer's warranty for on-site parts and labor.

1.6 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum three years documented experience, and with service facilities within 50 miles of Reno, Nevada.
- B. Supplier: Authorized distributor of specified manufacturer with minimum three years documented experience.

1.7 WARRANTY

- A. Manufacturer agrees to repair or replace components of packaged engine generators and associated auxiliary components that fail in materials or workmanship within specified warranty period.
- B. Warranty Period: Two (2) years from date of successful generator startup, not to exceed 90-days from date of delivery.

1.8 MAINTENANCE SERVICE

- A. Furnish service and maintenance of engine generator for one year from date of successful generator startup, not to exceed 90-days from date of delivery.

1.9 MAINTENANCE MATERIALS

- A. Furnish two of each: fuel, oil and air filter elements.

PART 2 - PRODUCTS

2.1 SERVICE CONDITIONS

- A. Engine generator system shall withstand the following environmental conditions without mechanical or electrical damage or degradation of performance capability:
 - 1. Ambient Temperature: -20 to 115 deg F (-29 to 46 deg C)
 - 2. Relative Humidity: Zero to 95 percent
 - 3. Altitude: Sea Level to 4,500 feet

2.2 ENGINE

- A. Manufacturers:
 - 1. John Deere
 - 2. No Equal
- B. Product Description: Water-cooled in-line or V-type, four-stroke cycle, compression ignition Diesel internal combustion engine.
- C. Rating: Sufficient capacity to operate under 110% of nameplate rating for one hour in specified ambient environmental conditions.
- D. Fuel System: ASTM D 975 diesel fuel oil, Grade 2-D S15.
- E. Engine speed: 1800 rpm.
- F. The certified horsepower of the engine shall provide a minimum bhp required per kW at the specified ambient temperature, elevation and rated speed.
- G. Safety Devices: Engine shutdown on high water temperature, low oil pressure, overspeed, and engine overcrank. Limits as selected by manufacturer.
- H. Engine Starting: 12-volt DC starting system with positive engagement of sufficient capacity to crank the engine at starting speed for one minute without overheating, number and voltage of starter motors in accordance with manufacturer's instructions.
- I. Automatic Engine Control: An automatic engine control shall be supplied which will start/stop the generator set in response to an external position two wire, closed to run, open to stop switch. The engine control will incorporate solid

state, instantaneous reset, adjustable timers. All engine control contacts will be 10-amp capacity. All relays shall be of the plug-in enclosed type. Engine Control Switch: Three position (Automatic – Off – Manual). A cyclic, adjustable overall cranking cycle of 60 to 120 seconds with crank and reset periods adjustable from 10 to 30 seconds. Engine safety shutdown controls to shut the engine down in the event of high jacket water temperature; low lubrication oil pressure; over-crank (failure to start); overspeed; or loss of coolant.

- J. Engine Jacket Heater: Thermal circulation type water heater with integral thermostatic control and isolation ball valves, sized to maintain engine jacket water between 120 degrees F and 140 degrees F to assure rapid starting (10 seconds or less) under the specified ambient temperature range.
- K. Radiator: A unit mounted radiator using a coolant solution of 50 percent ethylene-glycol-based antifreeze and 50 percent water, with blower type fan, sized to maintain safe engine temperature in specified ambient temperature range. Radiator air flow restriction 0.5 inches of water (1.25 Pa) maximum. The cooling system shall be supplied with corrosion inhibitor. A radiator duct adapter shall be provided to allow for direct exhausting of used cooling air.
- L. Engine Lubrication System: The engine shall be furnished with a gear type lube oil pump that will furnish oil pressure to moving parts. Full flow lube oil filters shall be provided in addition to a bypass valve that will allow lube oil circulation in the event of a failure of the filtering system. Lube oil shall be provided as recommended by the engine manufacturer for job conditions.
- M. Engine Accessories: Fuel filter, lube oil filter, intake air filter, lube oil cooler, fuel transfer pump, fuel priming pump, gear-driven water pump.
- N. Mounting: Furnish unit with suitable spring-type vibration isolators and mount on structural steel base tank.
- O. Engine Exhaust Emissions: Certified to EPA Tier 3 requirements.

2.3 ALTERNATOR (GENERATOR)

- A. Manufacturers:
 - 1. Marathon Electric Generators
 - 2. No Equal
- B. Product Description: The power generator shall be of the salient pole synchronous type and temperature rise not to exceed 130 degrees C. The generator shall be equipped with amortisseur winding. Winding pitch shall be 2/3. The generator shall be of single bearing flange-mounted design. The

bearing shall be a laminated, steel, semi-flexible, piloting type. Excitation system shall be PMG type. Insulation class shall be in accordance with the most current NEMA MG1-22.40 requirements for the generator. The generator shall be provided with a power terminal cabinet of adequate size for connection of load conductors.

- C. Rating: Reference Bid Schedule for required kW, at 0.8 power factor, 480Y/277 volts, 60 Hz at 1800 rpm.
- D. Insulation Class: H
- E. Temperature Rise: 130 degrees C Standby.
- F. Enclosure: Skid Mounted Unit.
- G. Voltage Regulation: Furnish generator mounted volts per hertz exciter-regulator to match engine and generator characteristics, with voltage regulation plus or minus 1 percent from no load to full load. Voltage regulator shall be of the solid state type. The steady state voltage stability shall remain within a 0.5% band or rated voltage. Steady state voltage modulation shall not exceed one cycle per second. The regulator printed circuit board and power control diodes shall be hermetically sealed for moisture protection. Voltage regulator shall be a stand-alone unit and not integrated into the generator control panel.

2.4 GOVERNOR

- A. Product Description: Electronic governor to maintain engine speed at precise isochronous control and rated frequency operation to within 0.25 percent, steady state, and 5 percent, no load to full load, with recovery to steady state within 2 seconds following sudden load changes. The governor shall not permit frequency modulation (defined as the number of times per second that the frequency varies from the average frequency in cyclic manner) to exceed ¼ cycle per second. Governor shall be a stand-alone unit and not integrated into the generator control panel.

2.5 ENGINE-GENERATOR CONTROL PANEL

- A. Manufacturer and Model:
 - 1. Deep Sea 7420 digital microprocessor controller
 - 2. No Equal

2.6 ACCESSORIES

- A. Skid-Mounted Fuel Tank: Capable of providing 24 hours of fuel capacity at full load with fill and vent. The fuel storage tank, fittings, gauges and piping shall be supplied and installed by the manufacturer in accordance with NFPA, applicable

local codes, and as specified herein. The tank shall be of 12-gauge steel construction complete with baffles, drain, fuel inlet, return connections, vent, fill cap fuel level gauge, and rupture basin. The sub base tank shall be UL approved, complete with leak alarm and fuel level light. The sub base tank shall have an opening to allow for conduit entry. The leak alarm shall be wired into the common alarm signal.

- B. Sound-Attenuated, Weather-Proof Enclosure:
 - 1. Sound level measured at a distance of 23 feet from exhaust discharge after installation is complete shall be as specified in the Bid Schedule.
 - 2. Be vandal resistant and lockable with three-point handle operated latches. The use of a key shall be required to access or operate the equipment.
 - 3. The roof shall have a positive camber for water runoff. The exhaust outlet(s) shall be supplied with rain guards at least 1-inch above the enclosure to prevent moisture from entering the enclosure.
 - 4. Air openings shall include fixed louvers sized to allow proper air flow.
 - 5. The enclosure shall be prepped and primed with self-etching primer suitable for the material used in the construction of the enclosure. Final coating shall be powder coat. Submit color sample chips of standard and premium industrial colors for color selection. Final enclosure exterior color selection shall be by owner.

- C. Battery: Heavy duty 12VDC, diesel starting type lead-acid storage battery, provided with sufficient capacity to provide a minimum of three cycle starts. A battery rack shall be furnished of acid resistant material of the unit mounted type. Battery starting cables shall be furnished, of adequate size and length.

- D. Battery Charger: An automatic, minimum 3-amp solid state battery charger shall be supplied with fused input and output in a NEMA 1 enclosure for mounting within the generator enclosure. The charger will be SCR controlled and solid state to eliminate mechanical contact problems. The charger printed circuit board shall be easily replaceable and shall contain high and low adjustable charge rate potentiometers, ammeter, and charger status (power) light.

- E. Line Circuit Breaker: Reference Bid Schedule for Amperage Rating , 480 Volt, 3 phase, NEMA AB 1, molded case circuit breaker on generator output with integral thermal and instantaneous magnetic trip in each pole. Unit mount in enclosure to meet NEMA 250, Type 1 requirements.

PART 3 - EXECUTION

3.1 MANUFACTURER'S FIELD SERVICES

- A. Prepare and start up engine-generator assembly.

- B. Furnish 2 hours of instruction each for two persons, to be conducted at project site with manufacturer's representative.
- C. Describe loads connected to standby system and restrictions for future load additions.
- D. Simulate power outage by interrupting normal source, and demonstrate system operates to provide standby power.

END OF SECTION 26 32 13.13

TECHNICAL SPECIFICATIONS

SECTION 26 32 13.13

DIESEL-ENGINE-DRIVEN GENERATOR SETS

EQUIPMENT PURCHASE SPECIFICATION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes diesel engine generator set, exhaust silencer and fittings, enclosure, fuel fittings, base fuel tank, battery, and charger.

1.2 REFERENCES

- A. National Electrical Manufacturers Association:
 - 1. NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum).
 - 2. NEMA AB 1 - Molded Case Circuit Breakers and Molded Case Switches.
 - 3. NEMA ICS 10 - Industrial Control and Systems: AC Transfer Switch Equipment.
 - 4. NEMA MG 1 - Motors and Generators.
- B. International Electrical Testing Association:
 - 1. NETA ATS - Acceptance Testing Specifications for Electrical Power Distribution Equipment and Systems.
- C. National Fire Protection Association:
 - 1. NFPA 30 - Flammable and Combustible Liquids Code.
 - 2. NFPA 110 - Standard for Emergency and Standby Power Systems.

1.3 SYSTEM DESCRIPTION

- A. Description: Standby diesel engine driven generator set to serve continuously during interruption of prime electrical power and required auxiliaries, accessories, and controls to provide source of power, as specified herein, and in accordance with NFPA 110.
- B. Capacity: Reference Bid Schedule for required kW.

1.4 SUBMITTALS

- A. Shop Drawings: Indicate electrical characteristics and connection requirements. Include plan and elevation views with overall and interconnection point dimensions, fuel consumption rate curves at various loads, ventilation and

combustion air requirements, electrical diagrams including schematic and interconnection diagrams.

- B. Product Data: Submit data showing dimensions, weights, ratings, interconnection points, and internal wiring diagrams for engine, generator, control panel, battery, battery rack, battery charger, enclosure, vibration isolators and base tank.
- C. Test Reports: Indicate results of performance testing.
- D. Manufacturer's Field Reports: Indicate inspections, findings, and recommendations.

1.5 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: Submit instructions and service manuals for normal operation, routine maintenance, oil sampling and analysis for engine wear, and emergency maintenance procedures.
- B. Manufacturer's Warranty: Submit written manufacturer's warranty for on-site parts and labor.

1.6 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum three years documented experience, and with service facilities within 50 miles of Reno, Nevada.
- B. Supplier: Authorized distributor of specified manufacturer with minimum three years documented experience.

1.7 WARRANTY

- A. Manufacturer agrees to repair or replace components of packaged engine generators and associated auxiliary components that fail in materials or workmanship within specified warranty period.
- B. Warranty Period: Two (2) years from date of successful generator startup, not to exceed 90-days from date of delivery.

1.8 MAINTENANCE SERVICE

- A. Furnish service and maintenance of engine generator for one year from date of successful generator startup, not to exceed 90-days from date of delivery.

1.9 MAINTENANCE MATERIALS

- A. Furnish two of each: fuel, oil and air filter elements.

PART 2 - PRODUCTS

2.1 SERVICE CONDITIONS

- A. Engine generator system shall withstand the following environmental conditions without mechanical or electrical damage or degradation of performance capability:
 - 1. Ambient Temperature: -20 to 115 deg F (-29 to 46 deg C)
 - 2. Relative Humidity: Zero to 95 percent
 - 3. Altitude: Sea Level to 4,500 feet

2.2 ENGINE

- A. Manufacturers:
 - 1. John Deere
 - 2. No Equal
- B. Product Description: Water-cooled in-line or V-type, four-stroke cycle, compression ignition Diesel internal combustion engine.
- C. Rating: Sufficient capacity to operate under 110% of nameplate rating for one hour in specified ambient environmental conditions.
- D. Fuel System: ASTM D 975 diesel fuel oil, Grade 2-D S15.
- E. Engine speed: 1800 rpm.
- F. The certified horsepower of the engine shall provide a minimum bhp required per kW at the specified ambient temperature, elevation and rated speed.
- G. Safety Devices: Engine shutdown on high water temperature, low oil pressure, overspeed, and engine overcrank. Limits as selected by manufacturer.
- H. Engine Starting: 12-volt DC starting system with positive engagement of sufficient capacity to crank the engine at starting speed for one minute without overheating, number and voltage of starter motors in accordance with manufacturer's instructions.
- I. Automatic Engine Control: An automatic engine control shall be supplied which will start/stop the generator set in response to an external position two wire, closed to run, open to stop switch. The engine control will incorporate solid

state, instantaneous reset, adjustable timers. All engine control contacts will be 10-amp capacity. All relays shall be of the plug-in enclosed type. Engine Control Switch: Three position (Automatic – Off – Manual). A cyclic, adjustable overall cranking cycle of 60 to 120 seconds with crank and reset periods adjustable from 10 to 30 seconds. Engine safety shutdown controls to shut the engine down in the event of high jacket water temperature; low lubrication oil pressure; over-crank (failure to start); overspeed; or loss of coolant.

- J. Engine Jacket Heater: Thermal circulation type water heater with integral thermostatic control and isolation ball valves, sized to maintain engine jacket water between 120 degrees F and 140 degrees F to assure rapid starting (10 seconds or less) under the specified ambient temperature range.
- K. Radiator: A unit mounted radiator using a coolant solution of 50 percent ethylene-glycol-based antifreeze and 50 percent water, with blower type fan, sized to maintain safe engine temperature in specified ambient temperature range. Radiator air flow restriction 0.5 inches of water (1.25 Pa) maximum. The cooling system shall be supplied with corrosion inhibitor. A radiator duct adapter shall be provided to allow for direct exhausting of used cooling air.
- L. Engine Lubrication System: The engine shall be furnished with a gear type lube oil pump that will furnish oil pressure to moving parts. Full flow lube oil filters shall be provided in addition to a bypass valve that will allow lube oil circulation in the event of a failure of the filtering system. Lube oil shall be provided as recommended by the engine manufacturer for job conditions.
- M. Engine Accessories: Fuel filter, lube oil filter, intake air filter, lube oil cooler, fuel transfer pump, fuel priming pump, gear-driven water pump.
- N. Mounting: Furnish unit with suitable spring-type vibration isolators and mount on structural steel base tank.
- O. Engine Exhaust Emissions: Certified to EPA Tier 3 requirements.

2.3 ALTERNATOR (GENERATOR)

- A. Manufacturers:
 - 1. Marathon Electric Generators
 - 2. No Equal
- B. Product Description: The power generator shall be of the salient pole synchronous type and temperature rise not to exceed 130 degrees C. The generator shall be equipped with amortisseur winding. Winding pitch shall be 2/3. The generator shall be of single bearing flange-mounted design. The

bearing shall be a laminated, steel, semi-flexible, piloting type. Excitation system shall be PMG type. Insulation class shall be in accordance with the most current NEMA MG1-22.40 requirements for the generator. The generator shall be provided with a power terminal cabinet of adequate size for connection of load conductors.

- C. Rating: Reference Bid Schedule for required kW, at 0.8 power factor, 480Y/277 volts, 60 Hz at 1800 rpm.
- D. Insulation Class: H
- E. Temperature Rise: 130 degrees C Standby.
- F. Enclosure: Skid Mounted Unit.
- G. Voltage Regulation: Furnish generator mounted volts per hertz exciter-regulator to match engine and generator characteristics, with voltage regulation plus or minus 1 percent from no load to full load. Voltage regulator shall be of the solid state type. The steady state voltage stability shall remain within a 0.5% band or rated voltage. Steady state voltage modulation shall not exceed one cycle per second. The regulator printed circuit board and power control diodes shall be hermetically sealed for moisture protection. Voltage regulator shall be a stand-alone unit and not integrated into the generator control panel.

2.4 GOVERNOR

- A. Product Description: Electronic governor to maintain engine speed at precise isochronous control and rated frequency operation to within 0.25 percent, steady state, and 5 percent, no load to full load, with recovery to steady state within 2 seconds following sudden load changes. The governor shall not permit frequency modulation (defined as the number of times per second that the frequency varies from the average frequency in cyclic manner) to exceed ¼ cycle per second. Governor shall be a stand-alone unit and not integrated into the generator control panel.

2.5 ENGINE-GENERATOR CONTROL PANEL

- A. Manufacturer and Model:
 - 1. Deep Sea 7420 digital microprocessor controller
 - 2. No Equal

2.6 ACCESSORIES

- A. Skid-Mounted Fuel Tank: Capable of providing 24 hours of fuel capacity at full load with fill and vent. The fuel storage tank, fittings, gauges and piping shall be supplied and installed by the manufacturer in accordance with NFPA, applicable

local codes, and as specified herein. The tank shall be of 12-gauge steel construction complete with baffles, drain, fuel inlet, return connections, vent, fill cap fuel level gauge, and rupture basin. The sub base tank shall be UL approved, complete with leak alarm and fuel level light. The sub base tank shall have an opening to allow for conduit entry. The leak alarm shall be wired into the common alarm signal.

- B. Sound-Attenuated, Weather-Proof Enclosure:
 - 1. Sound level measured at a distance of 23 feet from exhaust discharge after installation is complete shall be as specified in the Bid Schedule.
 - 2. Be vandal resistant and lockable with three-point handle operated latches. The use of a key shall be required to access or operate the equipment.
 - 3. The roof shall have a positive camber for water runoff. The exhaust outlet(s) shall be supplied with rain guards at least 1-inch above the enclosure to prevent moisture from entering the enclosure.
 - 4. Air openings shall include fixed louvers sized to allow proper air flow.
 - 5. The enclosure shall be prepped and primed with self-etching primer suitable for the material used in the construction of the enclosure. Final coating shall be powder coat. Submit color sample chips of standard and premium industrial colors for color selection. Final enclosure exterior color selection shall be by owner.

- C. Battery: Heavy duty 12VDC, diesel starting type lead-acid storage battery, provided with sufficient capacity to provide a minimum of three cycle starts. A battery rack shall be furnished of acid resistant material of the unit mounted type. Battery starting cables shall be furnished, of adequate size and length.

- D. Battery Charger: An automatic, minimum 3-amp solid state battery charger shall be supplied with fused input and output in a NEMA 1 enclosure for mounting within the generator enclosure. The charger will be SCR controlled and solid state to eliminate mechanical contact problems. The charger printed circuit board shall be easily replaceable and shall contain high and low adjustable charge rate potentiometers, ammeter, and charger status (power) light.

- E. Line Circuit Breaker: Reference Bid Schedule for Amperage Rating , 480 Volt, 3 phase, NEMA AB 1, molded case circuit breaker on generator output with integral thermal and instantaneous magnetic trip in each pole. Unit mount in enclosure to meet NEMA 250, Type 1 requirements.

PART 3 - EXECUTION

3.1 MANUFACTURER'S FIELD SERVICES

- A. Prepare and start up engine-generator assembly.

- B. Furnish 2 hours of instruction each for two persons, to be conducted at project site with manufacturer's representative.
- C. Describe loads connected to standby system and restrictions for future load additions.
- D. Simulate power outage by interrupting normal source, and demonstrate system operates to provide standby power.

END OF SECTION 26 32 13.13