



Addendum No. 1
Glendale WTF 1.5 MW Diesel Generator Purchase
TMWA Bid No.: 2017-005
TMWA Capital Project No.: 11-0013

January 20, 2017

The following information, clarifications, changes and modifications are by reference incorporated into the bid documents for the above referenced project. Any work item or contract provision not changed or modified will remain in full force and effect. The bid date and time and construction schedule remain the same.

Information, Clarifications, Changes and Modifications

A. Questions and Responses:

Question No. 1: Below please find a few questions I have come up with going through spec of above project. Could you respond?

- a) Due to MV, UL2200 is not applicable.
- b) Due to MV, no breakers will be provided on the generator. Protection should be provided either through the MDP or a stand-alone SWBD next to the generator.
- c) Two full sets of spares or just two of each filter?
- d) Is 725kW medium voltage load bank required? A radiator mount MV load bank is not possible due to the size requirements. Is it possible to provide pad mounted instead? The least expensive solution is to provide a pad mounted load bank. If allowed, a SWBD will be required to intercept the generator output and provide a breaker to supply the load bank with power. The SWDB can also include a 400A CB.
- e) Factory Witness Test? Duration of test? All expenses or owner provide travel costs?
- f) One year maintenance? Annual, quarterly, bi-annual, or some other interval. Annual load bank included or not?
- g) Would it be possible to provide a 480VAC generator system as specified with breaker protections, UL2200 certifications and unit mounted load bank? The output from the gen breaker can be fed through a step-up transformer. This will keep the actual cost of the generator down, provide a UL listed system, easier maintenance since MV requires special requirements for servicing, and 480VAC would allow for easier replacement of parts, etc, in the future.

- h) Does paragraph below valid for venders as well?

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.

Response to Question No. 1 (a-h):

- a) Correct. Please reference below for revisions to applicable Technical Specification sections.
- b) Breakers shall be provided on the generator as specified in the Technical Specification.
- c) I assume you are referring to Part 1.11 Maintenance Materials in the Technical Specification. Provide quantity two of each filter. Fuel filter, oil filter, and air filter.
- d) Load bank shall be radiator mounted as specified.
- e) Yes, a factory test witnessed by the Owner is required. Please reference Part 3.4 Factory Test Witness Provision of the Technical Specification. The duration of the test shall be a minimum of 4 hours. Owner shall be responsible for all costs associated for travel, meals, and lodging to witness the test.
- f) Per Part 1.10 Maintenance Service of the Technical Specification, supplier shall 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. The maintenance interval shall be quarterly (every 3 months). Servicing of the load bank is not required. Annual auxiliary load bank testing is not required during maintenance service.
- g) No. Generator shall be supplied as specified in the Technical Specification.
- h) No. The provisions of paragraph 7 in the Instructions To Bidders, Bidding Procedures, Section K Bidders Representation, do not apply to this project. Also, reference Page 4 of the Bid Proposal Forms.

Question No. 2: Will this be a direct bid to the Truckee Meadows Water Authority for the gen-set only or does the bid also include installation of the equipment?

Response to Question No. 2: This bid is for supply and delivery of the specified generator. Installation is NOT included as part of this bid.

Question No. 3: I am finding that there are no manufacturers of a 4160 volt load bank, as called for in the generator specifications. We could do a 480 volt load bank with a transformer. However, the transformer would be very large and would need to be installed outside of the generator enclosure. Could you check with the design team to see if this is a viable option?

Response to Question No. 3: This is NOT a viable option. TMWA has generators equipped with 4,160V load banks as required by the specification, so they are an item that is available and/or can be manufactured.

B. Technical Specification:

1. Section 2.1 General paragraph A. REPLACE with the following:

2.1 GENERAL

A. Provide first-quality new materials, free from defects and suitable for the intended use and the space provided. Provide equipment compliant with requirements set forth in the contract documents and standards which have been locally established. As a minimum, provide equipment which meets the requirements of:

1. UL 508 (Electric Industrial Controls)
2. UL 142 (Sub Base Fuel Tanks)
3. UL 1236 (Battery Chargers)
4. ~~UL 2200 (Generator Sets)~~ NOT APPLICABLE
5. UL 499 (Heaters)
6. ISO 3046-1, Reciprocating internal combustion engines — Performance —Declarations of power, fuel and lubricating oil consumptions, and test methods — Additional requirements for engines for general use
7. ISO 8528-1: Reciprocating Internal Combustion Engine Driven Alternating Current Generating Sets — Application, Ratings and Performance
8. ISO 8528-2: Reciprocating internal combustion engine driven alternating current generating sets — Engines
9. ISO 8528-3: Reciprocating internal combustion engine driven alternating current generating sets — Alternating current generators for generating sets
10. ISO 8528-4: Reciprocating internal combustion engine driven alternating current generating sets — Controlgear and switchgear
11. ISO 8528-5: Reciprocating internal combustion engine driven alternating current generating sets — Generating sets

2. Section 2.3 Performance Requirements paragraph E. REPLACE with the following:

E. ~~UL Compliance: Comply with UL 2200.~~
ISO 3046-1, Reciprocating internal combustion engines — Performance —Declarations of power, fuel and lubricating oil consumptions, and test methods — Additional requirements for engines for general use

ISO 8528-1: Reciprocating Internal Combustion Engine Driven Alternating Current Generating Sets — Application, Ratings and Performance

ISO 8528-2: Reciprocating internal combustion engine driven alternating current generating sets — Engines

ISO 8528-3: Reciprocating internal combustion engine driven alternating current generating sets — Alternating current generators for generating sets

ISO 8528-4: Reciprocating internal combustion engine driven alternating current generating sets — Controlgear and switchgear

ISO 8528-5: Reciprocating internal combustion engine driven alternating current generating sets — Generating sets

3. Section 2.8 Diesel Fuel-Oil System paragraph G. ADD the following:

7. Generator shall include a full diamond-plate deck between the generator and sub-base fuel tank which will allow for a rain-tight seal for the sub-base fuel tank and surface for engine oil leak containment as applied in a pit type installation. Deck shall extend beyond the tank extents to cover pit wall, approximately 9-inches and include 1” downward lip at edge.

4. Section 2.8 Diesel Fuel-Oil System. ADD the following paragraph:

H. No electronic fuel injectors shall be permitted.

5. Section 2.9 Control and Monitoring paragraph D.2. ADD the following:

Transfer logic shall be installed in the generator digital controller.

6. Section 2.10 Generator Over-Current and Fault Protection paragraph C. REPLACE with the following:

2.10 GENERATOR OVER-CURRENT AND FAULT PROTECTION

C. Generator Main Line Circuit Breaker: ~~Molded case, electronic trip type; 100 percent rated; complying with UL 489~~ Vacuum Type.

1. ~~Type: 400A frame, 350A trip~~ LSIG
2. Tripping Characteristics: Adjustable long-time and short-time delay, instantaneous, and ground-fault sensing.
3. Trip Settings: Selected to coordinate with generator thermal damage curve.
4. Shunt Trip: Connected to trip breaker when engine generator is shut down by other protective devices through generator set 24VDC battery supply.
5. Mounting: On generator output, adjacent to or integrated with control and monitoring panel, within NEMA-12 enclosure.
6. Generator Main Line Circuit Breaker shall include lockout capability.

END OF ADDENDUM NO. 1