#### TERREBONNE PARISH CONSOLIDATED GOVERNMENT

#### **PROJECT MANUAL**

#### **FOR**

## TPCG Project #673939 PW #1725

## **HOUMA POWER PLANT**

**RFP Package – Generator Procurement** 

JASON W. BERGERON - PARISH PRESIDENT

#### TERREBONNE PARISH COUNCIL MEMBERS

BRIEN PLEDGER		(1)
CARL "CARLEE" HARDING		(2)
CLAYTON "C.J." VOISIN, JR.	~~^	(3)
JOHN AMEDEÉ	TEDDERONNE	(4)
CHARLES "KEVIN" CHAMPAGNE	ILINILDUMNL	(5)
CLYDE HAMNER	< h∇Ki2H∞/	(6)
DANIEL "DANNY" BABIN		(7)
"KIM" CHAUVIN	9	(8)
STEVE TROSCLAIR		(9)

Prepared By: GIS Engineering, LLC



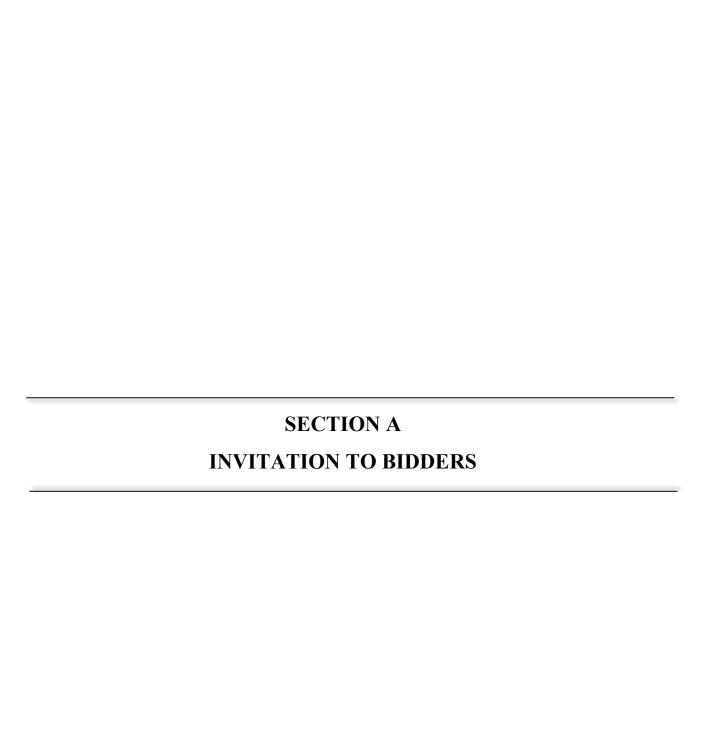
#### GENERAL TABLE OF CONTENTS

		Page No.
SECTION A - INV	ITATION TO BIDDERS	A-4
SECTION B - INST	FRUCTION TO BIDDERS	R-1
1.0	Defined Terms	
2.0	Copies of Bidding Documents	
3.0	Examination of Contract Documents and Site	
4.0	Interpretations and Addenda	
5.0	Bid Security	
6.0	Contract Time	
7.0	Liquidated Damages	
8.0	Substitute Material and Equipment of "Or-Equal" Items	
9.0	Proposal Document Forms	
10.0	Preparation and Submission of Bids	
11.0	Modification and Withdrawal of Bids	
12.0	Opening of Bids	
13.0	Bids to Remain Open	
14.0	Award of Contract	
SECTION C - PRO	POSAL FORMS	C-1
Louis	siana Uniform Public Works Bid Form	C-1
Unit 1	Price Form	C-2
<b>SECTION D</b> - Succ	essful Bidder Additional Information and Documentation	
15.0	Due Within 10 Days From Opening Of Bid	
16.0	Due Within 10 Days Of Receipt Of Notice Of Award	
	rification Form (Sample)	
Crim	inal Attestation Affidavit (Sample)	D-6

**SECTION E-** Reserved

#### **SECTION F - CONTRACT FORM** ARTICLE 2 - Scope of Supply ......6 ARTICLE 3 - Price......6 ARTICLE 6 - Payments ......8 ARTICLE 7 - Bonds and Statements of Claims......9 ARTICLE 9 - Correspondence......9 ARTICLE 11 - Title Transfer, Delivery, Risk of Loss. ......11 ARTICLE 17 - Warranty......13 ARTICLE 21 - Environmental, Safety, and Health Regulations (ES&H)......15 ARTICLE 23 - Plant Protection and Security......16 ARTICLE 31 - Reserved ......23 ARTICLE 34 - Proprietary Information......23 ARTICLE 41 - Governing Law.....27 ARTICLE 42 - Effective Date......27 ARTICLE 44 - Right to Audit Records......27

### **ATTACHMENTS**



#### **SECTION A**

#### **INVITATION TO BIDDERS**

Proposals will be received on \_\_\_\_\_\_ 20\_\_\_, by the Terrebonne Parish Consolidated Government (TPCG) Purchasing Division, at the 301 Plant Road, in Houma, Louisiana until 2:00 P.M as shown on the Purchasing Division Conference Room Clock.

Bid documents are posted on <a href="http://www.centralauctionhouse.com/rfp.php?cid=65">http://www.centralauctionhouse.com/rfp.php?cid=65</a>. To view these, download, and receive bid notices by e-mail, you must register with Central Auction House (CAH). Vendors/Contractors have the option to submit their bids electronically or by paper copy. For information about the electronic submittal process, contact Bobby Callender with Central Auction House at (225) 810-4814.

Each bid shall be either hand delivered by the bidder or his agent, or such bid shall be sent by United States Postal Service registered or certified mail with a return receipt requested, or shall be submitted electronically with Central Auction House (CAH). Bids shall not be accepted or taken, including receiving any hand delivered bids, on days which are recognized as holidays by the United States Postal Service.

The mailing address for bids is: TPCG Purchasing Division

301 Plant Road

Houma, Louisiana 70363

No bid received after the scheduled time will be considered. Failure of the U.S. Mail to deliver the bids timely shall not be considered due cause for the scheduled time to be extended.

**Project Name:** Houma Power Plant – RFP Generator Procurement

**Project No:** 673939

**Project Description:** To provide services, materials and equipment required to furnish nine (9)

Reciprocating Internal Combustion Engine (RICE) Generators & Associated Equipment that will be delivered to the Terrebonne Parish Houma Power Plant in Houma, Louisiana. The RICE Generators & Associated Equipment shall be furnished in accordance with Technical Specification Package 481126, Reciprocating Engine-Generator and

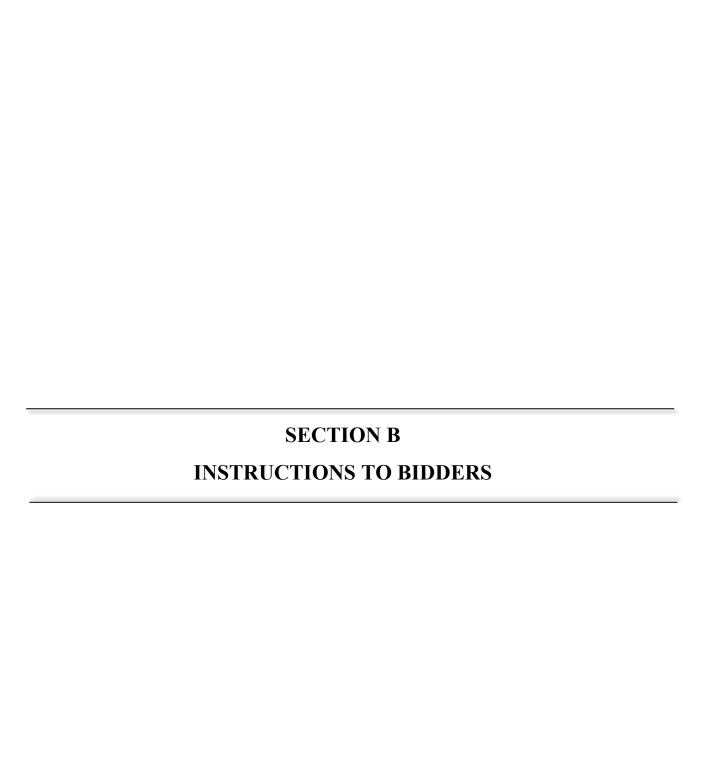
Equipment and the requirements contained herein.

Bids must be submitted on the Louisiana Uniform Public Works Bid Form furnished with the Bidding Documents.

Bidding Documents for this Project are on file in the office of GIS Engineering, LLC, located at 197 Elysian Drive, Houma, LA 70363. Please contact Ann Schouest at <u>bidquestions@gisy.com</u> for any clarification or information with regard to the specifications.

The Terrebonne Parish Consolidated Government reserves the right to reject any and all bids in accordance with Louisiana Procurement Code.

# /s/ Jason W. Bergeron JASON W. BERGERON, PARISH PRESIDENT TERREBONNE PARISH CONSOLIDATED GOVERNMENT



#### **SECTION B**

#### INSTRUCTIONS TO BIDDERS

#### 1.0 DEFINED TERMS

- 1.1 Terms used in these Instructions to Bidders which are defined in the Standard General Conditions of the Construction Contract have the meanings assigned to them in the Standard General Conditions and the Supplementary Conditions.
- 1.2 Other terms used in the Bidding Documents and not defined elsewhere have the following meanings which are applicable to both the singular and plural thereof:

<u>Addenda</u> - Written or graphic instruments issued prior to the date for opening of Bids which may interpret or modify the Bidding Documents by additions, deletions, clarifications, or corrections.

<u>Alternate</u> – An item on the bid form that may either increase or decrease the quantity of work or change the type of work within the scope of the project, material, or equipment specified in the bidding documents or both. The owner may or may not incorporate an alternate into the contract at the time of contract award.

<u>Base Bid</u> – The amount of money stated in the bid as the sum for which the bidder offers to perform the work described in the bidding documents prior to the adjustments for alternate bids but including any unit prices.

<u>Louisiana Uniform Public Works Bid Form (Bid Form)</u> - The written offer of the Bidder on the bid forms furnished within the Bidding Documents for the Work proposed.

 $\underline{Bid}$  – A complete signed proposal to perform work or a designated portion for a stipulated sum in accordance with the bidding documents. \*The word "Bid" is synonymous with "Proposal".

<u>Bidder</u> - An entity or person who submits a bid for a contract with the owner. A bidder is not a contractor on a specific project until a contract is confected between the bidder and the owner. \*The word "Bidder" is synonymous with the "Proposer".

<u>Successful Bidder</u> - The selected responsive Bidder to whom OWNER (on the basis of OWNER'S evaluation as hereinafter provided) makes an award.

<u>Bid Security</u> – A bid bond or deposit submitted with a bid to guarantee to the owner that the bidder, if awarded the contract, will execute the contract within a specified period of time and will furnish any bonds or other requirements of the bidding documents.

<u>Bidding Documents</u> – means the bid notice or invitation to bidders, plans and specifications, instructions to bidders, bid form, addenda, special provisions, and all other written instruments prepared by or on behalf of a public entity for use by prospective bidders on a public contract.

<u>Legal Alien</u> - Is a person who is or was lawfully present or permanently residing legally in the United States and allowed to work at the time of employment and remains so throughout the duration of that employment.

Owner – The public entity issuing the bid.

<u>Public entity</u> – Means and includes the state of Louisiana, or any agency, board, commission, department, or public corporation of the state, created by the constitution or statute or pursuant thereto, or any political subdivision of the state, including but not limited to any political subdivision as defined in Article VI Section 44 of the Constitution of Louisiana, and any public housing authority, public school board, or any public officer whether or not an officer of a public corporation or political subdivision.

<u>Public Work</u> – means the erection, construction, alteration, improvement, or repair of any public facility or immovable property owned, used, or leased by a public entity.

<u>Qualifications Submittals</u> - The information required on AIA Document A305, and as required the Preliminary Progress Schedule, the Bid Breakdown and Subcontractor Qualifications Statement List.

<u>Status Verification System</u> - Means the electronic verification of work authorization program of the Illegal Immigration Reform and Immigration Responsibility Act of 1996, 8 U.S.C. 1324(a), and operated by the United States Department of Homeland Security, known as the "E-Verify" program.

<u>Unit Price</u> – The amount stated on the bid form representing the price per unit of materials and/or services.

#### 2.0 COPIES OF BIDDING DOCUMENTS

- 2.1 A single complete set of the Bidding Documents may be obtained as set forth in the Invitation to Bidders.
- 2.2 Complete sets of Bidding Documents should be used in preparing Bids; neither OWNER nor ENGINEER assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.
- 2.3 OWNER and ENGINEER, in making copies of Bidding Documents available on the above terms, do so only for the purpose of obtaining Bids on the Work and do not confer a license or grant for any other use.

#### 3.0 EXAMINATION OF CONTRACT DOCUMENTS AND SITE

3.1 Before submitting a Bid it is recommended that each Bidder (a) examine the Bidding Documents thoroughly, (b) visit the site to become familiar with local conditions that may in any manner affect cost, progress, performance or furnishing of the Work, (c) familiarize himself with and consider federal, state and local Laws and Regulations that may in any manner affect cost, progress, performance or furnishing of the Work, (d) study and carefully correlate Bidder's observations with the Bidding Documents, and (e) notify ENGINEER of all conflicts, errors or discrepancies in the Bidding documents.

<sup>\*</sup>The word "Owner" is synonymous with the "Purchaser.

- 3.2 Review the Supplementary Conditions for identification of:
  - 3.2.1 those reports of explorations and tests of subsurface conditions at the site which have been utilized by ENGINEER in preparation of the Bidding Documents. Bidder may rely upon the accuracy of the technical data contained in such reports, but not non-technical data, interpretations or opinions contained therein or for the completeness thereof for the purposes of Bidding or construction.
  - 3.2.2 those drawings of physical conditions in or relating to existing surface and subsurface conditions (except Underground Facilities) which are at or contiguous to the site which have been utilized by ENGINEER in preparation of the Bidding Documents. Bidder may rely upon the accuracy of the technical data contained in such drawings but not upon the completeness thereof for the purposes of Bidding or construction.
  - 3.2.3 Copies of subsurface soil investigation reports and drawings will be made available by OWNER to any Bidder on request if such report exists. Those reports and drawings are not part of the Bidding Documents, but the technical data contained therein upon which Bidder is entitled to rely as provided in Paragraphs 3.2.1 and 3.2.2 are incorporated therein by reference. Such technical data has been identified and established in SECTION F, Attachment 2.
- 3.3 Information or data reflected in the Bidding Documents with respect to Underground Facilities at or contiguous to the site is based upon information or data furnished to OWNER and ENGINEER by owners of such Underground Facilities or others, and OWNER does not assume responsibility for the accuracy or completeness thereof unless it is expressly provided otherwise in the Supplementary Conditions.
- 3.4 Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders on subsurface conditions, Underground Facilities and other physical conditions, and possible changes in the Contract Documents due to differing conditions appear in the General Conditions.
- 3.5 Before submitting a Bid each Bidder may, at Bidder's own expense and with OWNER's prior approval, make or obtain any additional examinations, investigations, explorations, tests and studies and may obtain any additional information and data which pertain to the physical conditions (surface, subsurface and Underground Facilities) at or contiguous to the site or otherwise which may in any manner affect cost, progress, performance or furnishing of the Work and which Bidder deems necessary to determine its Bid for performing and furnishing the Work in accordance with the time, price and other terms and conditions of the Contract Documents.
- 3.6 On request in advance, OWNER may provide each Bidder access to the site to conduct such explorations and tests as each Bidder deems necessary for submission of a Bid. Bidder shall fill all holes, clean up and restore the site to its former condition upon completion of such explorations.
- 3.7 The lands upon which the Work is to be performed, rights-of-way and easements for access thereto, and other lands designated for use in performing the Work are identified in the Contract Documents. All additional lands and access thereto required for temporary construction facilities, access, or storage of materials and equipment are to be provided by Successful Bidder who has been awarded the Contract. Easements for permanent structures or permanent changes in existing structures are to be obtained and paid for by OWNER unless otherwise provided in the Contract Documents.

- 3.8 Each Bidder shall inform himself of, and the Bidder awarded a Contract shall comply with, Federal, State and local laws, ordinances, rules and regulations affecting the execution of the Work and the furnishing of the necessary materials. This requirement includes, but is not limited to, applicable regulations concerning minimum wages, non-discrimination in employment, protection of public and employee safety and health, environmental protection, fire protection and permits, and fees and licensing.
- 3.9 The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with recommendations of this Article; that without exception the Bid is premised upon performing and furnishing the Work required by the Bidding and Contract Documents; and that the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

#### 4.0 INTERPRETATIONS AND ADDENDA

- 4.1 All questions about the meaning or intent of the Bidding Documents are to be directed to ENGINEER as set forth herein. Interpretations, clarifications, or modifications considered necessary by ENGINEER in response to such questions will be issued by Addenda as set forth below.
- 4.2 Bidders shall promptly notify ENGINEER in writing of any ambiguity, inconsistency, or error which they may discover upon examination of the Bidding Documents or of the site and local conditions. Bidders requiring clarification or interpretation of any of the Bidding Documents shall make a written request of the ENGINEER at the address in the Bidding Documents or Contract Documents.
- 4.3 All requests pertaining to questions about the meaning or intent of the Bidding Documents received less than ten days prior to the date for opening of Bids may not be answered unless, in the opinion of the ENGINEER, the ambiguity in the Bidding Documents is so significant that it may necessitate postponement of the Bid date and issuance of an addendum to respond to the Bidder's request.
- 4.4 Any interpretation, clarification, correction, or modification to the Bidding Documents shall be only by a written addendum. Interpretations, clarifications, corrections or modifications made by any other manner shall not be binding and shall not be relied upon by Bidders. Addenda shall be transmitted in accordance with the Louisiana Procurement Code.
- 4.5 Addenda may be issued to modify the Bidding Documents as deemed advisable by OWNER or ENGINEER.
- 4.6 Prior to submittal of bids, each Bidder shall ascertain that he has received all addenda issued. The Bidder shall acknowledge receipt of each Addendum by completing the acknowledgment space provided on the Bid Form. Failure by a Bidder to acknowledge each individual addendum shall render that Bidder's Bid proposal non-responsive.

#### 5.0 BID SECURITY

5.1 The bid must be accompanied by bid security which shall be in the amount of five (5%) percent of the proposed total contract amount. Said security can be in the form of a certified check, cashier's check, or bid bond.

5.2 The Bid Security of the Successful Bidder will be retained until such Bidder has furnished other additional information and required documentation in accordance with the bidding documents, executed the Standard Form Agreement, furnished the required payment and performance bonds, and provided the required insurance documentation whereupon the Bid Security will be returned. If the Successful Bidder fails to furnish other required documentation or to execute and deliver the Standard Form of Agreement and furnish the required bonds, OWNER may annul the Notice of Award and the Bid Security of that Bidder will be forfeited to OWNER. Should the OWNER be required to engage the services of an attorney in connection with the enforcement of Bids, Bidder agrees to pay OWNER's reasonable costs, including attorney fees, and all court, arbitration, or hearing costs incurred with or without suit. The Bid Security of any Bidder whom OWNER believes to have a reasonable possibility of receiving the award may be retained by OWNER until the forty-fifth (45th) day after the Bid opening or seven (7) days after the effective date of the Standard Form of Agreement.

#### **6.0 CONTRACT TIME:**

The numbers of days within which, or the dates by which, the Work is to be substantially completed and also completed and ready for Final Payment (the Contract Times) are set forth in the Standard Form of Agreement. If for any reason, a Bidder believes that the Contract Time specified is insufficient or excessive to complete the work, said Bidder shall so inform the ENGINEER at any time prior to the deadline for the receipt of requests for clarification/interpretation. Replies may be issued by addenda in accordance with these Instructions to Bidders.

By submission of bid, Bidder acknowledges and represents that Bidder has carefully correlated the provisions in Article 3 of the Standard Form of Agreement with the other terms and conditions of the Bidding Documents and unequivocally accepts the contract time for the work and any other designated parts of the work as specified.

**7.0 LIQUIDATED DAMAGES**: By submission of bid, Bidder unequivocally accepts the liquidated damages provisions set out herein and specified in Article 11.C of the Contract Form in the event of failure, neglect or refusal to complete the work, or any designated part of the work, within the corresponding contract times.

By submission of Bid, Bidder agrees that for each calendar day beyond the Contract Time set forth in the Agreement, and any extension thereof, that the Work remains incomplete, the Owner may retain from the total amount of the Contract Price, as Liquidated Damages.

#### 8.0 SUBSTITUTE MATERIAL AND EQUIPMENT OR "OR-EQUAL" ITEMS

8.1 Whenever materials or equipment are specified or described in the Bidding Documents or specifications by using the name of a certain brand, make, supplier, manufacturer, or definite specification; the naming or specification of the item is only intended to denote the quality standard of the product and they do not restrict bidders to the specific brand, make, manufacturer, or specification named; that they are used only to set forth and convey to prospective bidders the general style, type, character, and quality of product desired; and that equivalent products will be acceptable. It shall be the responsibility of the professionally employed architect or engineer to determine what is considered an equivalent product on any and all projects in which he has been legally employed to perform his professional services.

- 8.2 With respect to equal brand products other than those specified:
- (1) The name of a certain brand, make, manufacturer, or definite specifications is to denote the quality standard of the article desired, but does not restrict bidders to the specific brand, make, manufacturer, or specification named. It is to set forth and convey to prospective bidders the general style, type, character, and quality of article desired.
  - (2) When in specifications or contract documents a particular brand, make of material, device, or equipment is shown or specified, such brand, make of material, device, or equipment shall be regarded merely as a standard.
- 8.3 When in specifications or contract documents an architect, prime design professional or engineer specifies a particular brand, make of material, device, or equipment, or equal thereto, he shall adequately identify said product by including, minimally, the model or catalog number of the product.
- 8.4 A potential supplier may submit a particular product for prior approval, other than a product specified in the contract documents, no later than fourteen working days prior to the opening of bids. Within ten days, exclusive of holidays and weekends, after submission, the prime design professional shall furnish to both the public entity and the potential supplier written approval or denial of the product submitted. If the prime design professional fails to respond within the time period provided for in this Paragraph, the bid shall be extended at least seven but not more than twenty-one working days.

#### 9.0 PROPOSAL DOCUMENT FORMS

- 9.1 Bid Forms for the Project are included with the Bidding Documents; additional copies may be obtained from ENGINEER.
- 9.2 Bids shall be submitted on the Bid Forms provided with the Bidding Documents. All blank spaces on the bid form required for Bid prices shall be properly filled in ink, or typed, in both words and figures as indicated.

#### 10.0 PREPARATION AND SUBMISSION OF BIDS

- 10.1 Bids shall be submitted by the time and at the place indicated in the Invitation to Bidders and, unless submitted electronically, shall be enclosed in an opaque sealed envelope. The envelope shall be marked with the Project title and name of the Bidder as set forth in the Invitation to Bidders.
- 10.2 Each bid shall be either hand delivered by the bidder or his agent, or such bid shall be sent by registered or certified mail with a return receipt requested or shall be submitted electronically with Central Auction House (CAH) (http://www.centralauctionhouse.com/rfp.php?cid=65). Bids shall not be accepted or taken including receiving any hand delivered bids, on days which are recognized as holidays by the United States Postal Service.

#### 10.3The following items are to be included within each Bid:

- 10.3.1 Completed Uniform Public Works Bid Form.
- 10.3.2 Signature Authorization. Written evidence of the authority of the person signing the bid for public works shall be submitted at the time of bidding, in accordance with LA R.S. 38:2212(B)(5) as follows:

- (a) The signature on the bid is that of any corporate officer listed on the most current annual report on file with the secretary of state, or the signature on the bid is that of any member of a partnership, limited liability company, limited liability partnership, or other legal entity listed in the most current business records on file with the secretary of state.
- (b) The signature on the bid is that of an authorized representative as documented by the legal entity certifying the authority of the person.
- (c) The legal entity has filed in the appropriate records of the secretary of state of this state an affidavit, resolution, or other acknowledged or authentic document indicating the names of all parties authorized to submit bids for public contracts. Such document on file with the secretary of state shall remain in effect and shall be binding upon the principal until specifically rescinded and canceled from the records of the office.

# Failure to include the appropriate signature authorization shall result in rejection of the bid as non-responsive.

- 10.3.3 Bid Bond with Power of Attorney, or Certified Check or Cashier's Check, all in the amount of five (5%) percent of the amount of the bid.
- 10.3.4 The Unit Price Form where unit prices are utilized. The number of unit prices that may be included is not limited and additional sheets may be included if needed.
- 10.3.5 <u>Company Description and Experience</u>: Provide a description of the Respondent's company and the services it provides including the number of years under present company name, number of employees directly involved in the provision of emergency services, office locations and capabilities, number of personnel at each office location, and a list of equipment owned by the company. Describe the business structure under which the Respondent operates (i.e. corporation, partnership, limited liability company, etc.) and under which state laws it is organized as a business entity. If Respondent has an office in Louisiana, provide the address and number of resident full-time employees.
- 10.3.6 <u>Sub-contractors</u>: List any sub-contractors who are proposed to be a part of the project. The management team must be clearly identified, and the Respondent is to include a statement of the nature and percentage of total work that is anticipated to be provided by them should the Respondent be selected. The respondent shall clearly identify whether any sub-contractors proposed are part of the Respondent's management team. Respondent shall demonstrate that any proposed sub-contractor has a history of proven and measurable experience in the area of services proposed to be used by the Respondent in its scope of services, including the submission of three (3) references from each sub-contractor.
- 10.3.7 Financial Resources: Respondents must demonstrate that they have adequate financial resources and stability to perform the services specified in this RFP including the ability to secure suitable payment and performance bonds and insurances. Respondent is to demonstrate its financial capability by providing the last three (3) years of audited financial statements for its company (any significant sub-contractors) which should include a profit and loss statement, a cash flow statement, a balance sheet as an appendix to its proposal. A non-public Respondent shall provide adequate information comparable to the information required above that allows an assessment of financial status and capability. Respondent shall also list the types and amounts of insurance coverage retained.

- 10.3.8 **Project Team:** Include a management and organizational chart specifically providing the proposed scope of services. Indicate position, title, job responsibilities, and where the personnel are proposed to be based. Provide the experience and resumes of those partners, principals, and employees of the Respondent who are actually responsibly for, and actively involved in a substantial manner in, the provision of services related to this contract.
- **10.3.9** Project Understanding / Approach: This section should demonstrate that the Respondent understands the needs of TPCG with respect to the services described herein. Respondent should include a description of the anticipated project approach including technical and management factors that will result in successful completion of the project. Advantages or special capabilities of the actual project team the Respondent is submitting for consideration should be highlighted in this section as well as the intended methods to ensure:
  - Public Safety
  - Effective project management
  - Timely prosecution of the work
  - Effective quality control
  - Effective communication protocol
  - Such other factors as Respondent deems demonstrate its unique capabilities and experience to ensure a successful project

Respondents are encouraged to provide examples of innovative and creative approaches unique to their scope of services and those they have found successful and have employed in the past. Additionally, Proposer should demonstrate he has familiarized himself with the territory in which the

work is to be performed and fully acquainted himself with all conditions, as they may exist so as to fully understand the difficulties and restriction that may be encountered in the execution of work under this contract.

- **10.3.10** <u>Available Resources</u>: Respondent should provide a statement of availability of personnel and equipment, proposed staging and/or response schedule that will be committed to in the event of activation.
- 10.3.11 Estimate of Resources: Based on the Respondent's proposed Scope of Services, the Respondent should provide a preliminary estimate of the Respondent's resources that would be dedicated for various levels of events. The estimate of resources should convey a sense of the amount of effort and resources that the Respondent believes are necessary to effectively execute this agreement. Provide applicable hourly rate for commissioning personnel on-site (see Section F Contract).
- **10.3.12** <u>Reference Projects</u>: Respondents should provide at least five (5) but no more than seven (7) reference projects completed by the Respondent of comparable size and scope. For each reference project, the Respondent should provide a brief description of the project, the scope of work completed, dates of contract start and completion, and contact information, including names, phone numbers and emails, for the client for whom the work was completed.
- **10.3.13** <u>Technical Data Sheets:</u> Respondents should provide Technical Data Sheets for Rice Engines and Generators and associated equipment per Attachment B of Technical Specification Section 481126.

- 10.4 Only for the purpose of interpretation of the base bid total and alternate bids, when applicable, written words shall govern if a conflict exists between words and numerals. If the public works requires unit price bids and there is a discrepancy between the base bid total and the sum of extended unit prices, the unit price shall govern.
- 10.5 A bidder may alter or correct an entry on the bid form by crossing out the entry, entering the new figure above or below the deleted entry, and initialing on the line of change. The crossing out of an entry and the initials shall be legibly handwritten with ink or typed. Any ambiguity arising from entries altered or corrected on the Bid Form will cause the rejection of said Bid Proposal as non-responsive.
- 10.6 **TAXES:** It is understood that all applicable taxes are included in the Bid price. Successful bidder as an authorized agent of OWNER will be authorized by OWNER to receive an exemption from Louisiana State Sales taxes related to the work to be performed. As such, the bid price should reflect this exemption.

#### 11.0 MODIFICATION AND WITHDRAWAL OF BIDS

- 11.1 Bids may be modified or withdrawn by an appropriate written document duly signed and authorized (in the manner that a Bid must be executed) and delivered to the place where Bids are to be submitted at any time prior to the deadline for submitting Bids. Withdrawal of a Bid will not prejudice the rights of a Bidder to submit a new Bid prior to the Bid Date and Time. After expiration of the period for receiving Bids, no Bid may be withdrawn, modified, or explained except as provided for herein.
- 11.2 In accordance with Louisiana law, more particularly, R.S. 38:2214, as may be amended, bids containing patently obvious, unintentional, and substantial mechanical and clerical, or mathematical errors, or errors of unintentional omission of a substantial quantity of work, labor, material, or services made directly in the compilation of the bid, may be withdrawn by the bidder if clear and convincing sworn, written evidence of such errors is furnished to the OWNER within 48 hours of the bid opening excluding Saturdays, Sundays and legal holidays. Such errors must be clearly shown by objective evidence drawn from inspection of the original work papers, documents or materials used in the preparation of the bid sought to be withdrawn. If the OWNER determines that the error is a patently obvious mechanical, clerical or mathematical error, or unintentional omission of a substantial quantity of work, labor, material or services as opposed to a judgment error, and that the bid was submitted in good faith, it shall accept the withdrawal and return the bid security to the bidder. A bidder who attempts to withdraw a bid under these provisions of this section shall not be allowed to re-submit a bid on the contract. Any modifications or amendments to the above stated applicable State law shall supersede this procedure.

#### 12.0 OPENING OF BIDS

#### 12.1 RESERVED.

12.2 Any Bid received after the announced closing time will be returned unopened. Any uncertainty as to whether a Bid was submitted in time will be resolved against the Bidder.

#### 13.0 BIDS TO REMAIN OPEN

13.1 The OWNER shall act not later than forty-five calendar days after the date of opening Bids to award such public works contract to the successful responsible and responsive bidder or to reject all

bids.

13.2 The OWNER and the successful responsible and responsive bidder, by mutually written consent, may agree to extend the deadline for award by one or more extensions of thirty calendar days.

#### 14.0 AWARD OF CONTRACT

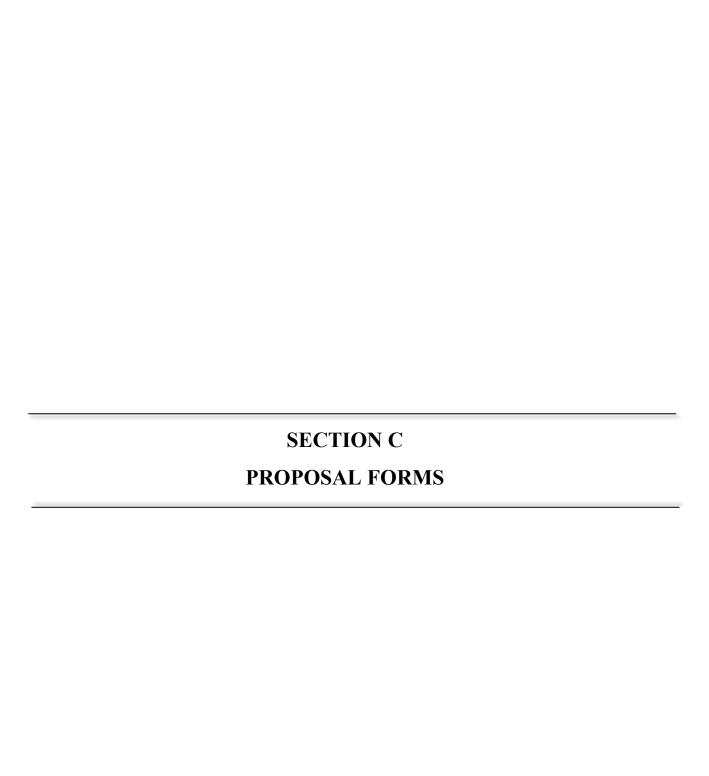
- 14.1 To the extent permitted by applicable local, state and federal laws and regulations, OWNER reserves the right to reject any and all Bids for just cause. The Terrebonne Parish Consolidated Government reserves the right to reject any and all bids in accordance with Louisiana State Bid Law.
- 14.2 In order to be responsive, the successful bidder must submit the additional information and documentation required by the OWNER and ENGINEER within the time delays established by law.
- 14.3 The successful Bidder must establish to the complete satisfaction of the OWNER, a minimum, that he has: (a) adequate financial resources to meet bid Contractual obligations and will maintain same for the Contract Time; (b) adequate equipment to perform the Work properly and within the Contract Time; (c) the necessary experience and technical qualifications in the type of Work provided for in the Contract; (d) conformed to the Qualification Submittals as requested.
- 14.4 OWNER may conduct such investigations as it deems necessary to assist in the evaluation of any Bid and to establish the responsibility, qualifications and financial ability of the Bidders, proposed Subcontractors, and other persons and organizations to do the Work in accordance with the Contract Documents to OWNER'S satisfaction within the prescribed time. OWNER reserves the right to reject the Bid of any Bidder who does not pass any such evaluation to OWNER'S satisfaction.
- 14.5 If the Contract is to be awarded for the Work, it will be awarded to the successful responsive and responsible Bidder as determined by the evaluation of the corresponding Bid. All Bids shall be initially evaluated based on criteria listed below by members of an advisory evaluation committee. Such advisory committee shall consist of individuals who have expertise regarding, or some experience with, the subject matter of the RFP or individuals who could be characterized as recipients, beneficiaries, or users of the RFP's subject matter. The committee may consist of TPCG clients. All Bids shall be evaluated by the committee using a point earned matrix. Evaluations and selection of the successful Respondent shall be based on the information submitted in the Bid.

In determining the supplier whose Bids/Proposals are in the best interests of TPCG and a Quality Based Selection. The following criteria, among possible others, will be considered:

1.	General Professional Impression	10 pts
2.	Quality and successful completion of projects of similar size and cost	15 pts
3.	Supplier's ability and capacity to perform the work.	20 pts
4.	Time, schedule, and past experience at quality and timely completion of	25 pts
	work	-
5.	Cost Proposal	25 pts
6.	Supplier's certification and training program	5 pts
To	tal Points	100 pts

By submitting a response to this RFP, the Bidder accepts the evaluation process and acknowledges and accepts that determination of the most qualified Bidder(s).

14.7 The successful Bidder who is awarded the Contract will be required to perform the Work as an Independent Prime Contractor. No assignment of a Contract will be allowed without written permission from OWNER.



#### SECTION C LOUISIANA UNIFORM PUBLIC WORK BID FORM

TO:	Terrebonne Parish Consolidated Government	BID FOR: Houma Power Plant
	City of Houma Service Complex	RFP Package — Generator Procurement
	301 Plant Rd.	TPCG Project No. 673939
	Houma, LA 70363	<u>PW No. 1725</u>
	(Owner to provide name and address of owner)	(Owner to provide name of project and other identifying information)
Docum addend applian comple	ents, b) has not received, relied on, or based his bid a, c) has personally inspected and is familiar with the	hat she/he; a) has carefully examined and understands the Bidding on any verbal instructions contrary to the Bidding Documents or any exproject site, and hereby proposes to provide all labor, materials, tools, orkmanlike manner, all work and services for the construction and with the Bidding Documents prepared by:    November 2025
Bidders	s must acknowledge all addenda. The Bidder acknowledge	owledges receipt of the following ADDENDA: (Enter the number the
Designe	er has assigned to each of the addenda that the Bidder is ack	nowledging)
	AL BASE BID: For all work required by the Bid but not alternates) the sum of:	lding Documents (including any and all unit prices designated "Base
		Dollars (\$)
designa	<b>RNATES:</b> For any and all work required by the ated as alternates in the unit price description. <b>ate No. 1</b> (Owner to provide description of alternate and state w	Bidding Documents for Alternates including any and all unit prices
1 HICE II	the 1 (6) I (6) mer to provide acsemption by attenuate and state w	Dollars (\$)
Altern	ate No. 2 (Owner to provide description of alternate and state w	
		Dollars (\$)
		Donais (b
Altern	${f ate\ No.3}$ (Owner to provide description of alternate and state $w$	•
		Dollars (\$
NAME	OF BIDDER:	
ADDR	ESS OF BIDDER:	
NAME	OF AUTHORIZED SIGNATORY OF BIDDER	:
TITLE	OF AUTHORIZED SIGNATORY OF BIDDER	:
SIGNA	ATURE OF AUTHORIZED SIGNATORY OF BI	IDDER **:
DATE		
THE E		WITH THE CUDWICCION OF THIC LOUICIANA UNICODM

## THE FOLLOWING ITEMS ARE TO BE INCLUDED WITH THE SUBMISSION OF THIS LOUISIANA UNIFORM PUBLIC WORK BID FORM:

- \* The <u>Unit Price Form</u> shall be used if the contract includes unit prices. Otherwise it is not required and need not be included with the form. The number of unit prices that may be included is not limited and additional sheets may be included if needed.
- \*\* A CORPORATE RESOLUTION OR WRITTEN EVIDENCE of the authority of the person signing the bid for the public work as prescribed by LA R.S. 38:2212(B)(5).

**BID SECURITY** in the form of a bid bond, certified check or cashier's check as prescribed by LA RS 38:2218(A) attached to and made a part of this bid.

#### SECTION C LOUISIANA UNIFORM PUBLIC WORK BID FORM <u>UNIT PRICE FORM</u>

City of Houma Service Complex			BID FOR: Ho	ouma Power Plant	
				P Package — Generator Procurement	
301 Plant Rd.				CG Project No. 673939	
Houma, LA 70363			PW No. 1725		
(Owner to provide na	ame and address of ow	ner)	(Own	ner to provide name of project and other identifying information)	
				bed as unit prices. Amounts shall be stated in figures and only in	
DESCRIPTION:	☑ Base Bid or □		ocating Engine-Generator and Equipment (9.		
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)	
01	1	LS			
DESCRIPTION:	☑ Base Bid or □	Alt.# Transportation	and Delivery of Nine (9) Reciprocating Engir	ne-Generators and Equipment to site	
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)	
02	1	LS			
DESCRIPTION:	☑ Base Bid or □	Alt.# Commissioning of	Nine (9) Reciprocating Engine-Generators a	and Equipment Allowance	
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)	
03	1	LS			
DESCRIPTION:	☐ Base Bid or 🗸	1 Alt.# 1 Extended Warr	anty – Nine (9) Reciprocating Engine-Genera	ators and Equipment	
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)	
04	5	YEAR		12 7	
DESCRIPTION:	□ Daga Did am □	1 A1t # 2 Tyye (2) Decimal	rocating Engine-Generators and Equipment (9	0.2 MW 202k)	
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)	
05	1	LS	OWITRICE	Civil TRICE EXTENSION (Quantity times on a Trice)	
DESCRIPTION:	□ Base Bid or 🗸	1 Alt # 2 Transportation	and Delivery of Two (2) Reciprocating Engi	ine Generators and Equipment to site	
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)	
06	1	LS		(2,1111)	
	-				
DESCRIPTION:		Alt.# _2 Commissionin	g of Two (2) Reciprocating Engine-Generato		
REF. NO.	QUANTITY:	UNIT OF MEASURE:	UNIT PRICE	UNIT PRICE EXTENSION (Quantity times Unit Price)	
07	1	I C			

Wording for "DESCRIPTION" is to be provided by the Owner.

All prices are to be in US Dollars. No other currency shall be allowed.

All quantities are estimated. The contractor will be paid based upon actual quantities as verified by the Owner.

# SECTION D LOW BIDDER ADDITIONAL INFORMATION AND DOCUMENTATION

#### SECTION D

# ADDITIONAL INFORMATION AND DOCUMENTATION REQUIRED OF APPARENT SUCCESSFUL BIDDER ONLY

#### 15.0 DUE WITHIN 10 DAYS FROM OPENING OF BID

In order to be responsive and no later than ten (10) days after the date bids are opened, the apparent Successful bidder must submit the following additional information and documentation as required by the OWNER or ENGINEER as indicated below:

If the apparent Successful bidder does not submit the proper information or documentation as required by the bidding documents within the ten-day period, such bidder shall be declared non-responsive, and the public entity may award the bid to the next lowest bidder, and afford the next Successful bidder not less than ten days from the date the apparent Successful bidder is declared non-responsive, to submit the proper information and documentation as required by the bidding documents, and may continue such process until the public entity either determines the Successful bidder or rejects all bids.

- **15.1 REQUIRED**: a Criminal Attestation Affidavit in accordance with LARS 38:2227– sample attached
- 15.2 REQUIRED: an E-Verification Form in accordance with LARS 38:2212.10 sample attached
- 15.3 REQUIRED: Non-collusion affidavit. The apparent Successful Bidder must submit a sworn statement, in the form required by Terrebonne Parish Consolidated Government, certifying that the Bidder has not, directly or indirectly, entered into any agreement, participated in any collusion or otherwise taken any action in restraint of free competitive bidding in connection with this project. The sworn statement shall be in the form of an affidavit, executed and sworn to by the bidder before persons authorized by laws of the state to administer oaths.
- **15.4 REQUIRED:** If Bid Bond is submitted electronically, the hard copy of the bid bond must be submitted by the apparent Successful bidder.
- 15.5 It is the intention of OWNER to award Contracts to Bidders competent to perform and to complete the Work in a satisfactory manner. OWNER and ENGINEER reserve the right to request additional information and documentation not set out below or set out below but not currently required. The apparent Successful Bidder must be prepared to submit the following within ten days of the date bids are opened:
  - **15.5.1 REQUIRED**: Preliminary Progress Schedule, as follows:
    - 15.5.1.1 The "Preliminary Progress Schedule" pertaining to Proposal Documents for the Work designated under this Contract shall consist of three copies of a "Summary Bar Chart" and a "Narrative." Activities in the Summary Bar Charts, unless otherwise indicated, should show the order in which Bidder proposes to perform the Work pursuant to the specified Contract dates and sequencing conditions, and should indicate starting and completion dates of Work pertaining to each Division of the technical specifications. Bar chart activities should

further identify significant fabrication, installation, testing, submittals and approvals, deliveries, OWNER's responsibilities and those of affected utilities and similarly involved third parties. Weekly or monthly rates of production for fabrication and installation should be shown for each activity on the Summary Bar Chart.

#### **15.5.2 [NOT] REQUIRED:** Bid Breakdown, as follows:

15.5.2.1 The "Bid Breakdown" should be show the quantities, as required, unit prices, as required, a description of each unit, as required, and total costs for each item for the entire Work as contemplated in the Contract. The Bidder agrees that these separate Bid Breakdown Prices, where they are applicable and determined to be reasonable by OWNER and at OWNER'S discretion, a) may be utilized as Contract prices for the purposes of measurement and payment, b) may be utilized to add or deduct separate Bid Breakdown Items from the Contract, and c) may be used in Change Orders which add or deduct like Work.

#### **15.5.3 REQUIRED:** Subcontractor "Qualifications Statement List," as follows:

- 15.5.3.1 The "Qualifications Statement List" for all proposed Subcontractors, proposed Suppliers, and other persons or organizations, including those who are to furnish the principal items of material and equipment, with a value in excess of \$100,000 or 10% of the maximum Base Bid Total Amount, whichever is lower. This list should include the name and address of the Subcontractor, Supplier, or other person or organization and a description of the services, materials or equipment to be supplied. Such list should be accompanied by an experience statement with pertinent information as to similar projects and other evidence of qualification for each Subcontractor, Supplier, or other person or organization if requested by OWNER. The list of principal items of equipment should include the name of the locations at which similar size and type of equipment, as that specified, is in service.
- 15.5.3.2 If OWNER or ENGINEER after due investigation has reasonable objection to the responsibility of any proposed Subcontractor, Supplier, or other person, organization, or equipment, OWNER may, before giving Notice of Award, request a Bidder to perform the associated parts of the Work or to submit an acceptable substitute, without an increase in Bid price. If a Bidder declines to make such substitution, the Contract may not be awarded to such Bidder.
- 15.5.3.3 The Contract, if awarded, will be on the basis that the total amount of the subcontracted Work shall not exceed 50% of the Bid price. Procedures for approval of Subcontractors, Suppliers, and other persons or organizations, after execution of the Agreement, are described in Article 6.8.1 of the General Conditions.

#### **15.5.4 [NOT] REQUIRED:** information required on AIA Document A305.

If, upon receipt and evaluation of these submittals, Bidder does not pass the evaluation to OWNER's satisfaction, OWNER reserves the right to reject the Bid pursuant to Article 14 of the Instructions to Bidders.

- **15.6 [NOT] REQUIRED:** Where the apparent Successful bidder desires to submit a substitute material or equipment from those specified in the Bidding Documents:
  - 15.6.1 A written proposal of an equivalent material or equipment from a potential supplier that is submitted to the ENGINEER should certify (and include drawings, specifications and other relevant information showing) that the proposed item (a) has the same essential characteristics of the item named or specified, (b) will equally perform the functions and achieve the results called for by the original design concept, (c) is suited to the same use as that item named or specified in the bid documents, (d) is at least of equal materials of construction, quality and necessary design features as that item named or specified in the Bidding Documents, (e) conforms substantially to the desired detailed requirements for the item named or specified, including, but not limited to, durability, strength, appearance and aesthetics (where aesthetics are significant), safety, service, life, reliability, economy of operation and ease of maintenance, and (f) offers a proven record of performance and service for at least three years before the date of Bid opening.
  - 15.6.2 The proposal from a potential supplier should include (a) a list of installations that have been in service for at least three years before the date of Bid opening (including the name, address and telephone number of a person familiar with and at the installation), and (b) sufficient Shop Drawing data and other data as may be necessary to allow the ENGINEER to determine whether the naming or specification of that item may be used to denote the essential characteristics of the item desired.
  - 15.6.3 The ENGINEER may consent to these proposals if, in the ENGINEER's judgment, the proposed item also may be used to denote the quality standard of the item desired, and to convey and establish the general style, type, character and quality of material or equipment desired. Lack of adequate information may be sufficient cause for rejecting a proposal.
  - 15.6.4 The ENGINEER will furnish notice to the OWNER and the potential supplier of the ENGINEER's approval or denial to adding the brand, make, supplier, manufacturer or specification.
  - 15.6.5 A potential supplier may submit a particular product for prior approval, other than a product specified in the contract documents, no later than fourteen working days prior to the opening of bids. Within ten days, exclusive of holidays and weekends, after submission, the prime design professional shall furnish to both the public entity and the potential supplier written approval or denial of the product submitted. If the prime design professional fails to respond within the time period provided for in this Paragraph, the bid shall be extended by at least seven but not more than twenty-one working days.

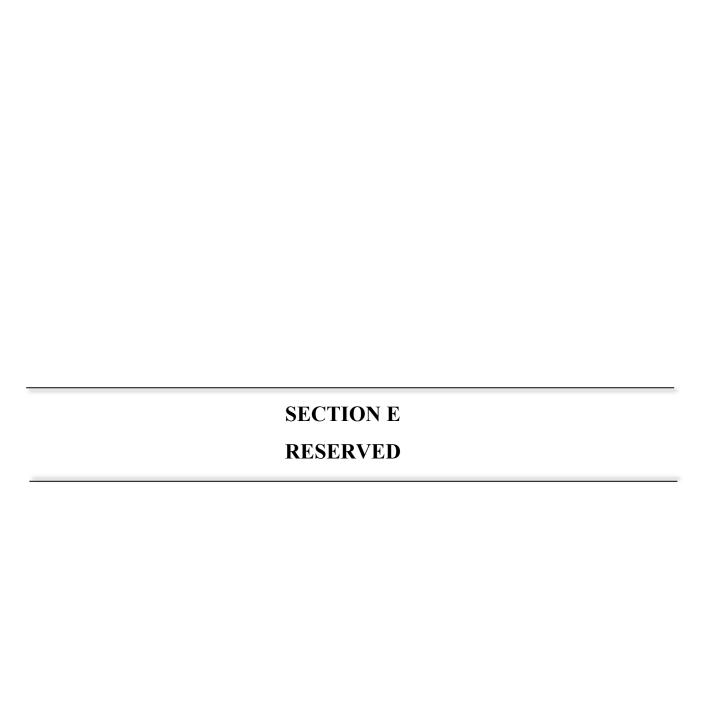
#### 16.0 DUE WITHIN 10 DAYS OF RECEIPT OF NOTICE OF AWARD

Within ten (10) days of receipt of Notice of Award by the successful bidder, the following information and documentation will be required:

**16.1 REQUIRED:** PERFORMANCE AND PAYMENT BONDS - Paragraph 5.1 of the General Conditions and the Supplementary Conditions set forth OWNER's requirements as to performance and payment Bonds. When a Successful Bidder delivers the executed Agreement to OWNER, it shall be accompanied by the required performance and payment Bonds.

16.2 **REQUIRED**: A Notice of Award to a Successful Bidder will be accompanied by multiple unsigned counterparts of the corresponding Agreement with all other written Contract Documents attached. Within ten (10) days thereafter, that Successful Bidder shall sign and deliver to the OWNER the required number of counterparts of the Agreement and attached Contract Documents and the required Bonds.

STATE OF		
PARISH/COUNTY OF _		
PROJECT NAME:	Houma Power Plant RFP Package – Generator Procurement TPCG Project No. 673939 PW No. 1725	_ _ _ _
LOCATION:	Houma, LA  AFFIDAVI	_ - Т
personally came	and appeared	d within and for the State and Parish/County aforesaid, representing being by me first duly sworn deposed and said that he h all provisions herein as follows:
Section 22	PART I. 24 of Part II of Chapter 10 of Title 38 of the 1	Louisiana Revised Statutes, as amended.
indirectly, to secure the affiant whose services in	public contract under which he received pa	association, or other organization, either directly or yment, other than persons regularly employed by the or demolition of the public building or project or in or affiant; and
association, or other org persons regularly employ	anization for solicitating the Contract, othe	s paid or will be paid to any person, corporation, firm, r than the payment of their normal compensation to my with the construction, alteration or demolition of the affiant.
Section	PART II. on 2190 of Part I of Chapter 10 of Title 38 of	the Louisiana Revised Statutes, as amended.
either directly or indirec construction of a public	tly, in any corporation, firm, partnership, o	thereof, does not own a substantial financial interest, of other organization which supplies materials for the erformed architectural or engineering services, either terials are being supplied.
	oses of this Section a "substantial financial in schange or the New York Stock Exchange.	nterest" shall exclude any interest in stock being traded
The affiant, if subject to violation of this section.	the provisions of this section, does hereby	agree to be subject to the penalties involved for the
		AFFIANT
SWORN TO AND SUBC	CRIBED BEFORE ME THIS DAY OF	, 20
		NOTARY PUBLIC



# SECTION F STANDARD FORM OF AGREEMENT BETWEEN OWNWER AND CONTRACTOR

## **SECTION F**

## **CONTRACT FORM**

TPCG Project #673939 PW# 1725

HOUMA POWER PLANT RFP PACKAGE – GENERATOR PROCUREMENT

#### **TABLE OF CONTENTS**

ARTICLE 1 - Definitions	1
ARTICLE 2 - Scope of Supply	6
ARTICLE 3 - Price.	6
ARTICLE 4 - Reserved	7
ARTICLE 5 - Technical Advisory Services	7
ARTICLE 6 - Payments	8
ARTICLE 7 - Bonds and Statements of Claims	9
ARTICLE 8 - Permitting Obligations	9
ARTICLE 9 - Correspondence	9
ARTICLE 10 - Key Personnel	10
ARTICLE 11 - Title Transfer, Delivery, Risk of Loss.	11
ARTICLE 12 - Reserved	12
ARTICLE 13 - Performance Guarantees.	12
ARTICLE 14 - Reserved.	12
ARTICLE 15 - Reserved.	12
ARTICLE 16 - Observation, Inspection and Factory Testing.	12
ARTICLE 17 - Warranty	13
ARTICLE 18 - Reserved	14
ARTICLE 19 - Compliance with Laws, Codes and Standards.	14
ARTICLE 20 - Hazardous Materials	14
ARTICLE 21 - Environmental, Safety, and Health Regulations (ES&H)	15
ARTICLE 22 - Safety	15
ARTICLE 23 - Plant Protection and Security	16
ARTICLE 24 - Project Management	16
ARTICLE 25 - Changes	17
ARTICLE 26 - Excusable Delays	18
ARTICLE 27 - Patents	19
ARTICLE 28 - General Indemnity	20
ARTICLE 29 - Insurance	21
ARTICLE 30 - Suspension	23
ARTICLE 31 - Reserved	23
ARTICLE 32 - Termination for Cause	23

ARTICLE 33 - Reserved	23
ARTICLE 34 - Proprietary Information	23
ARTICLE 35 - Software	25
ARTICLE 36 - Personal Data Protection	26
ARTICLE 38 - Assignment and Change in Control	26
ARTICLE 39 - Contract Documents	26
ARTICLE 40 - Dispute Resolution	27
ARTICLE 41 - Governing Law	27
ARTICLE 42 - Effective Date	27
ARTICLE 43 - Acceptance of the Contract	27
ARTICLE 44 - Right to Audit Records	27
ARTICLE 45 - Entire Agreement	28
ARTICLE 46 - Miscellaneous Provisions	28
ARTICLE 47 – FEMA Requirements	29

#### **ATTACHMENTS**

A	4	$\sim$		-	
Attachment	١.	V'n	ectal.	Pre	01/1C101C
$\Delta$ machine $\alpha$		$-\omega \nu$	CCIAI	1 11	ovisions.

Attachment 2: Technical Specification Package

Attachment 3: Reserved

Attachment 4: Reserved

Attachment 5: Scheduled Major Component Delivery Date(s)

Attachment 6: Performance Test Specification

Attachment 7: Guarantee Sheet

Attachment 8: Supplier's Document Submittal Schedule

Attachment 9: Liquidated Damages - Performance

Attachment 10: Payment Schedule

Attachment 11: Non-Collusion Affidavit

Attachment 12: Attestations Affidavit

Attachment 13: Certification Regarding Debarment or Suspension

Attachment 14: Certification Regarding Lobbying

#### **CONTRACT**

THIS CONTRAC	CT FOR PURCHASE	OF EQUIPMENT ANI	D SERVICES (	("Contract")	is entered
into as of the	day of		Effective Dat	e, by and	between a
		corporati	ion, having	a principal	place of
business at		_	(the	"Supplier"	); and
TERREBONNE PARIS	H CONSOLIDATED (	GOVERNMENT, the	"Purchaser"). l	Purchaser an	d Supplier
are referred to herein, in	dividually, as a "Party	" and, collectively, as	the "Parties."		

#### **RECITALS**

**WHEREAS**, Supplier is engaged in the business of manufacturing and delivering various kinds of power plant equipment and of providing services and training in support of the installation, commissioning, maintenance, and use thereof; and

**WHEREAS**, Purchaser desires to purchase, and Supplier desires to sell the Equipment, together with certain installation, commissioning, and maintenance support and training services in connection with Purchaser's Project located at Houma, Louisiana where the Equipment will be installed and the Services performed ("Site"), subject to the terms set forth herein;

**NOW, THEREFORE**, in consideration of the mutual promises stated herein, the receipt and sufficiency of which is hereby acknowledged, the Parties agree as follows:

#### **ARTICLE 1 - Definitions.**

A. Definitions. As used in this Contract, the following terms have the meanings indicated:

"Affiliate" shall mean any entity that directly or indirectly controls, is controlled by or is under common control with a Party. For the purposes of this definition, "control" means the possession, directly or indirectly, of the power to direct or cause the direction of the management and policies of the controlled entity, whether through the ownership of voting securities or partnership or other ownership interests or by Contract or otherwise.

"Ambient Site Conditions" shall have the meaning ascribed in Article 19 of this Contract.

"Bidder" shall mean one who submits a bid for a Contract with the Owner for the work described in the proposed Contract Documents.

"Change in Control" shall mean the occurrence of one or more of the following events:

- (i) any entity shall become the direct or indirect beneficial owner of a majority of the equity interest in Purchaser;
- (ii) any entity shall obtain, by Contract or otherwise, the power to direct the affairs of or elect any of the directors (or other members of the governing body) of Purchaser; or (iii) any sale, lease, exchange, or other transfer (in one transaction or a series of related transactions) of a majority of the operating assets of Purchaser to any entity.

"Change in Law" shall mean a new Law or change to an existing Law, or a change in the interpretation

or application of a Law by the cognizant executive or judicial authorities occurring after the Effective Date of Supplier's contract to Purchaser.

"Change Order" shall mean a mutually agreeable written agreement to change the Equipment, Services, or any provision of this Contract, which describes the change, identifies the agreement as a Change Order sets out adjustments, if any, in the Contract Price and any other provision of this Contract which is affected, and is signed by the Parties.

"Codes and Standards" shall have the meaning ascribed in Article 19 of this Contract. "Confidential Information" shall have the meaning ascribed in Article 34 of this Contract.

"Construction Supplier" shall mean the person, firm, partnership or corporation with whom Purchaser has entered into a contract to install the Equipment to be procured via this Contract.

"Contract Currency" shall mean the currency in which the Contract Price is stated in United States Dollars USD.

"Contract Documents" shall have the meaning ascribed in Article 39 of this Contract.

"Contract Price" shall mean the total price as consideration for the Equipment and the Services, as set forth in Article 3 of this Contract, and as may be adjusted from time to time in accordance with this Contract.

"Corrected Power Output" shall mean the Measured Power Output corrected from previously operating conditions to guaranteed operating conditions identified in Attachment 7 utilizing the mutually agreed test procedure (CPO).

"Customer Kickoff Meeting" shall mean a project kick off meeting between Supplier's project execution team and Purchaser's project team.

"Day" or "Days" shall mean a calendar day, including Saturdays, Sundays, and holidays, except that in the event that an obligation is due for performance on a Saturday, Sunday or US national legal holiday, the obligation shall be deemed due on the next business day thereafter.

"Delivery Point" shall have the meaning ascribed in Article 11of this Contract. "Effective Date" shall mean the date described in Article 42 of this Contract.

"Equipment" shall mean all of the equipment described in the "Equipment" portion of Attachment 2 - Technical Specifications.

"Governing Law" shall have the meaning ascribed in Article 41 of this Contract.

"Guaranteed Power Output" shall have the meaning ascribed in Attachment 7, (GPO).

"Indemnified Party" shall have the meaning ascribed in Article 28 of this Contract.

"Indemnifying Party" shall have the meaning ascribed in Article 28 of this Contract.

"Key Personnel" shall be Supplier's Project Manager, the Site Manager, and the selected individuals rendering Technical Advisory Services.

"Law" or "Laws" shall mean those laws, regulations, decrees or similar orders with mandatory effect issued by the legislative, judicial or executive branch of any relevant government, in effect as of the date of Supplier's contract to Purchaser, to the extent such laws, regulations, decrees or similar orders are applicable to the scope of this Contract.

"Local Laws" shall have the meaning ascribed in Article 19 of this Contract.

"Major Component" shall mean the Reciprocating Internal Combustion Engine (RICE) generator with its base and engine auxiliary equipment.

"Measured Power Output" is the measured Power Output per unit at the time of the test under previously operating conditions, (MPO).

"Minimum Power Output" shall have the meaning as described in Attachment 6. - Performance Test Specification.

"Must Meet Remedy" is a continuing obligation on the part of Supplier to repair or replace the Equipment so that the Equipment meets a designated performance criterion (e.g., the Minimum Performance Guarantees, etc).

"National Laws" shall have the meaning ascribed in Article 19 of this Contract.

"Power Output" shall mean the power output at the generator terminals less Supplier provided auxiliaries, (PO).

"Notice" shall have the meaning of any formal written announcement, notification or other communication required under this Contract. A Notice shall be deemed served if sent by certified mail to the address designated in this Contract.

"Notice to Proceed" shall be keyed to the date that the Purchaser's Down Payment is received by the Supplier (See Attachment No. 10 - Payment Schedule).

"Owner" shall mean the Terrebonne Parish Consolidated Government, which owns the Facility in which the Equipment will be installed.

"Owner Representative or OR" shall mean GIS Engineering ("GIS") or any of its affiliates or subsidiaries, acting on behalf of Terrebonne Parish Consolidated Government ("TPCG").

"Party" and "Parties" shall have the meanings ascribed in the foreword to this Contract.

"Payment Schedule" shall mean the schedule of payments described in Article 6 of this Contract and Attachment 10.

"Performance Guarantees" shall mean the guaranteed values identified in Attachments 6 and 7.

"Personal Data" shall have the meaning ascribed in Article 36 of this Contract.

"Project" shall mean Purchaser's project for which Supplier is supplying Equipment and/or Services as described in this Contract.

"Purchaser" shall mean Terrebonne Parish Consolidated Government ("TPCG"), the entity that is Contract, and any of its Affiliates or subsidiaries.

"Purchaser's Representative" shall mean GIS Engineering ("GIS") or any of its affiliates or subsidiaries, acting on behalf of Terrebonne Parish Consolidated Government ("TPCG").

"Ready for First Fire" shall mean all equipment required for the operation of the Unit has been installed, checked out, and is ready for commissioning; Purchaser and Supplier have certified its completion from Supplier's "Installation and Commissioning Manual;" and the Unit has been erected and installed in accordance with Supplier's Installation and Commissioning Manual, including: (i) the setting of all equipment comprising such Unit on foundations; and (ii) the connection of all such equipment to other applicable equipment as required by way of piping, wiring, controls, and safety systems.

"Scheduled Major Component Delivery Dates" shall have the meaning ascribed in Article 11 of this Contract.

"Scope of Supply" shall mean the Equipment plus the Services, as set forth in Attachment 2 Technical Specifications.

"Services" shall mean those services described in Attachment 1 and Article 3(B).

"Site" shall mean the location of the Project and place where the Equipment will be installed:

Terrebonne Parish Consolidated Government Houma Power Plant 1551 Barrow St. Houma, Louisiana 70360 Attn: Cyr LeBouef

Attn: Cyr LeBouef Tel: 985 873 6750

Email: <a href="mailto:cleboeuf@tpcg.org">cleboeuf@tpcg.org</a>

"Software" means a computer program or compilation of data that is fixed in any tangible medium of expression, or any storage medium from which the program may be perceived, reproduced or otherwise communicated, either directly or with the aid of a machine or device, and shall include without limitation any of Supplier's proprietary operating Software, provided for the ordinary operation of the Equipment, any optional Software to enhance the operation of the Equipment, as well as any upgrades or revisions of this material Supplier provides in fulfillment of a specific written commitment or otherwise.

"Subcontractor(s)" shall mean any corporation, partnership, or individual having a contract with Supplier to provide specific services to be performed at the Site in connection with this Contract.

"Supplier(s)" shall mean any corporation, partnership, or individual having a contract with Supplier to supply material, equipment, labor, goods, or services to Supplier for inclusion in the Equipment or Services provided by Supplier under this Contract, other than those specific services to be performed by subcontractors at the Site.

"Supplier" shall mean any person, contractor, manufacturer, vendor, seller, firm, partnership or corporation with whom Purchaser has entered into this Contract.

"Supplier Taxes" shall mean corporate and individual taxes that are measured by net income or profit imposed by any governmental authority of any country on Supplier, its employees, subcontractors or contractors due to the execution of any agreement or the performance of or payment for Work hereunder, except for withholding tax for income on payments to Supplier.

"Technical Advisory Services" shall have the meaning ascribed in Attachment 2 Technical Specifications.

"Unimpeded Access" shall mean Purchaser providing Supplier with access to the Unit(s) while Purchaser ensures that the following conditions are met: (i) the necessary fuels, lubricants, operating supplies and third party interconnections are continuously available; (ii) Purchaser's trained operators are available for operation of the Units); (iii) Purchaser will operate portions or all of the Facility at the times and at the loads reasonably requested by Supplier; (iv) Supplier will have unimpaired access to all facility work areas, station cranes and similar equipment; and (v) a copy of the control room log is made available to Supplier. Nonetheless, Supplier is responsible for all costs for the repeated Performance Tests, including, but not limited to, the items and services defined in (i) and (ii) and Article 13(B), and as provided in Attachment 2.

"Unit" shall mean a single Reciprocating Internal Combustion Engine (RICE) with its base, the generator, generator base, and the associated equipment.

"Unit Price" shall mean the amount bid on a per "day," per "hour," per "trip" basis under Additive Alternate No. 2 as noted on the Material Bid Proposal Form. The "Unit Price" as bid shall not change for the term of the Contract.

"Warranty Period" shall have the meaning ascribed in Article 17 of this Contract.

"Work" shall mean the procurement, fabrication, and supply of the Equipment and the performance of the Services, and any corrective actions undertaken pursuant to Article 17.

**B. Rules of Interpretation.** The following rules of interpretation shall apply in construction of this Contract. Unless otherwise required by the context in which any term appears: (i) capitalized terms used in this Contract have the meanings specified in this Article, or as otherwise defined in this Contract, (ii) the singular shall include the plural, (iii) the words "herein," "hereof and "hereunder" shall refer to this Contract as a whole and not to any particular section or subsection of this Contract, (iv) references to this Contract shall include a reference: to all appendices, annexes, schedules and exhibits hereto, as the same may be amended, modified, supplemented or replaced from time to time, (v) the words "include," "includes" and "including" are not limiting, (vi) any consent to be given by either Party hereunder shall not be unreasonably withheld, delayed or conditioned, except as explicitly stated to the contrary herein, and (vii) references to any agreement, document or instrument shall mean a reference to such agreement, document or instrument as the same may be amended, modified, supplemented or replaced from time to time.

## **ARTICLE 2 - Scope of Supply**

The Supplier shall manufacture and deliver the Equipment and perform the Services as more fully described in Attachment 2, subject to the terms and conditions set forth in this Contract.

#### **ARTICLE 3 - Price**

Purchaser shall pay to Supplier the following "Contract Price" in consideration of the Equipment and Services.

- A. Taxes. The Contract Price is stated exclusive of state and local sales taxes. TPCG is exempt by statute from any sales tax, both state and local. The Contract Price is complete compensation for the provision of all Equipment and Services and includes all transportation and shipping costs imposed with respect to the provision of any Equipment or Services. Supplier shall be responsible for all present or future taxes, tariffs, VAT, duties, fees, deductions, withholdings, other charges and liabilities (all together, "taxes") imposed by any authorities between the place of manufacture and delivery into the State of Louisiana.
- **B.** Services. The Contract Price includes all services, supervision, insurance, consumables, expendables, warranty and other contractual obligations, supplies, equipment, testing, inspection, to design, and fabricate the Equipment included in the Supplier's Scope of Supply attached hereto as Attachment 2.
- *C. Price Adjustments.* The Contract Price may be adjusted as necessary to take account of (a) Change Orders, or (b) other adjustments specifically provided for in this Contract.
- **D.** Payment. Payment of Contract Price shall be made in accordance with Section C Bid Form, the Payment Schedule set forth in Attachment 10, and the payment terms set forth in Article 6. In the case of Change Orders, payment shall be made in accordance with those terms stated in the Change Order.
- **E.** Equipment/Service Description. Supplier will provide one total Contract Price to cover all items included in Scope of Supply. Following table is to be completed after award of contract:

1. BASE BID		
EQUIPMENT/SERVICE DESCRIPTION		PRICE
Nine (9) Reciprocating Engine-Generator and Equipment (9.3 MW each)		\$
Transportation and Delivery of Nine (9) Reciprocating Engine-Generators \$ and Equipment to site		5
Commissioning of Nine (9) Reciprocating Engine-Generators and Equipment \$ Allowance		
BASE BID BREAKDOWN (Commissioning Allowance Personnel Rates for Nine Units)		
A. Rate per standard eight (8) hour day:	days @	/day = \$
<ul> <li>B. Overtime Rate (&gt;8hr/day):</li> <li>C. Overtime Rate (Sat., Sun., holidays):</li> <li>D. Stand-by Rate</li> <li>E. Round Trip Transportation:</li> <li>F. Subsistence Allowance (per person):</li> </ul>	hours @	/hour =\$
C. Overtime Rate (Sat., Sun., holidays):	hours @	/hour = <u>\$</u>
D. Stand-by Rate	hours @	/hour =\$
E. Round Trip Transportation:	trips @	/trip = \$
F. Subsistence Allowance (per person):	days @	/trip = \$
TOTAL COMMISSIONING ALLOWANCE PRICE: \$  TOTAL BASE BID PRICE: \$		
2. ADDITIVE ALTERNATE NO. 1		
EQUIPMENT/SERVICE DESCRIPTION		PRICE
Two (2) Reciprocating Engine-Generator and Equipment (9.3 MW each)		\$
Transportation and Delivery of Two (2) Reciprocating Engine-Generators and Equipment to site		\$
Commissioning of Two (2) Reciprocating Engine-Generators and Equipment Allowance		\$
TOTAL ADDITIVE ALTERNATE NO. 1 PRICE		\$
3. ADDITIVE ALTERNATE NO. 2		
EQUIPMENT/SERVICE DESCRIPTION		PRICE
Extended Warranty – Nine (9) Reciprocating Engine-Generators and Equipment		\$
TOTAL ADDITIVE ALTERNATE NO. 2 PRICE		\$
CONTRACT TOTAL (BASE BID plus ADDITIVE ALTERNATE NO. 1 & 2): \$		

#### **ARTICLE 4 – Reserved**

## **ARTICLE 5 - Technical Advisory Services**

A. Technical Services Installation, Testing, Startup and Training. Supplier is providing Technical Advisory Services in accordance with Attachment 2 Technical Specification Reciprocating Internal Combustion Engine and Attachment 3 Technical Services. Technical Advisory Services are an on- Site service offered by Supplier to provide technical guidance, advice, and counsel in relation to installation, testing and startup and maintenance of the Equipment based upon Supplier's current engineering, manufacturing, installation, testing, startup and operating practices, and consistent with the Clean Air Act, the Louisiana Environmental Quality Act, any applicable federal and state regulations. The objectives are installation, testing, and startup of the Equipment in a safe, efficient, technically correct, high quality manner, and subsequent reliable operation.

As part of the Technical Advisory Services, Supplier shall assist or train, as applicable, Purchaser in installation, testing and operation and maintenance as required by Technical Specification Reciprocating Internal Combustion Engine, to ensure that the equipment is installed, operated and maintained correctly so as to not void or limit the manufacturer's warranty.

**B.** Long Term Services Agreement. A Long-Term Services Agreement ("LTSA") is not included in this Contract; it shall be contracted separately, after award. Nevertheless, Supplier shall offer for purchase an LTSA. Execution of an LTSA shall be a condition precedent for execution of this Contract.

## **ARTICLE 6 - Payments**

- A. Payment Milestones. In accordance with the Milestone Payment Schedule in Attachment 10, for those payments tied to milestones, invoices shall only be issued upon completion of the milestone and submission by Supplier of the required documentation per this Article and Attachment 8, Supplier's Submittal Schedule, and payment shall be due and payable net thirty (30) Days from the date the Purchaser receives from the Owner Representative an approved and certified Supplier's invoice. All payments shall be made in US Dollars.
- **B.** Invoices. The original of an invoice referencing this Contract Number shall be sent by electronic mail and in PDF format to the Owner Representative, with a courtesy copy to TPCG c/o Ernest Brown, at the following addresses:

GIS Engineering, LLC 197 Elysian Drive Houma, LA 70363 TPCG Mr. Ernest Brown Director of Utilities 301 Plant Rd. Houma, LA 70363

Email: ebrown@tpcg.org

- C. Retention. Two percent (2%) of each invoice payment will be withheld as retention; Retention money shall be withheld for no more than one hundred and eighty days from delivery of the equipment and complete Contract deliverables, or thirty (30) days from successful commissioning & start up and acceptance of the Equipment, whichever is later.
- **D.** Effect of Changes in Contract Price. If any adjustment results in an increase to the Contract Price, Purchaser shall pay for the increase in accordance with the corresponding invoice submitted by Supplier. If any adjustment results in a decrease in the Contract Price, payments previously made shall be retained by Supplier and will be applied to subsequent payments as they become due.
- **E. Field Modifications.** In the event Purchaser notes non-conformity in the Equipment as compared to Supplier provided Submittal and specifications, Purchaser shall send notice of such non-conformity to Supplier as soon as reasonably practicable. Supplier shall review Purchaser's claim of nonconformity, and if Supplier agrees with the claim on non-conformity, then within five (5) Days of Supplier's receipt of Purchaser's notice, Supplier shall commence and continue to cure or remedy the non-conformity. If, after reviewing Purchaser's claim on non-conformity, Supplier disputes such claim on non-conformity, then the parties shall resolve the matter in accordance with Article 40, entitled "Dispute Resolution."

#### **ARTICLE** 7 - Bonds and Statements of Claims

- **A. Bonds.** Supplier shall provide a payment bond and performance bond with a good, solvent and sufficient surety in a sum no less than the total of the contract price for each bond. All aspects of bonds and statements of claims made applicable to this Contract shall be governed by Louisiana law.
- **B.** Requirements. The payment and performance bonds shall be statutory bonds and no modification, omissions, additions, in or to the terms of the contract, in the plans or specifications or in the manner and mode of payment diminish, enlarge, or otherwise modify the obligations of the bonds. The bonds shall be executed by the Supplier with surety or sureties approved by the City of Alexandria and shall be recorded with the contract in the office of the recorder of mortgages in the parish where the work is to be done not later than thirty (30) days after the work has begun.
- **C. Inspection.** Upon request of any person or entity appearing to be a potential claimant requiring **payment** for work done arising under this Contract, the Supplier shall promptly furnish a copy of the bonds or shall permit a copy to be made.

## **ARTICLE 8 - Permitting Obligations**

Supplier shall provide reasonable assistance to Purchaser in its endeavors relating to modifying the permitting of the Site by providing information and support during the application and review process.

## **ARTICLE 9 - Correspondence**

- A. Contract Interpretation. Supplier shall submit all questions and requests for interpretation of the Contract documents prepared by Purchaser in writing to the Owner Representative (OR) or email to <a href="mailto:bidquestions@gisy.com">bidquestions@gisy.com</a>. If sending email, please include the project number and name of the project in the email's subject line.
- **B.** Notices. All notices required in writing under this Agreement will be considered as having been given by one Party to *the* other upon the latter Party's receipt of same. All notices will be transmitted by registered or certified mail, by overnight courier or facsimile with written confirmation to:
  - 1. If to Supplier:
    ATTN:
  - 2. If to Purchaser:

e mail:

TPCG Mr. Ernest Brown Director of Utilities 301 Plant Rd. Houma, LA 70363

Email: ebrown@tpcg.org

**C. Project Correspondence.** Supplier shall serially number all correspondence issued under this **Contract**. Except as indicated elsewhere in this Contract or the attachments thereto, or as otherwise directed in writing by Purchaser, all correspondence to Purchaser shall reference the Contract number and shall be addressed in accordance with Article 9(B). The following Owner Representative and Program Manager shall be copied on all project correspondence:

GIS Engineering, LLC
Project Manager

And

## **ARTICLE 10 - Key Personnel**

**A. Qualifications of Personnel.** Supplier agrees to provide the services and work of competent and experienced personnel with backgrounds in providing similar services and work, and who are fluent in written English and verbal English.

- **B.** Identification of Key Personnel. Supplier shall furnish Purchaser with resumes, including the names, titles, and qualifications, of its Key Personnel. Supplier shall insure that its employees and its subcontractor's employees have valid licenses, permits, certificates, Visas, and any other documentation necessary to perform their duties in accordance with all applicable laws, regulations, and other criteria. Supplier shall maintain records at the job site to show that its employees and its subcontractor's employees have valid licenses, permits, certificates, Visas and any other documentation necessary to perform their duties.
- C. Changes in Key Personnel. Supplier shall minimize changes to its Key Personnel. Purchaser shall have the right to request Key Personnel changes in the event Supplier's personnel display substantial failure to complete his/her duties or for other reasonable cause under this Agreement. Supplier recognizes Purchaser's right to control access to the site, and Supplier agrees to provide Purchaser ten (10) days written notice prior any changes in Key Personnel.

## **ARTICLE 11 - Title Transfer, Delivery, Risk of Loss**

- A. Title. Title shall transfer in accordance with Louisiana law.
- **B** Delivery. The Delivery Point shall be the City of Houma, LA., Houma Power Plant, 1551 Barrow St., Houma, LA. 70360 or another point as designated by TPCG. The detailed delivery schedule is set forth in Attachment 5. The general terms of Delivery are set forth below:

Once an item is available for shipment, Supplier will notify Purchaser of such status in writing in the Notice of Ready to Ship ("RTS"). An item of the Equipment will be "Ready to Ship" (or "RTS") when it is available for shipment from the manufacturer's facility or warehouse. Supplier shall provide the Notice of RTS for the Major Components for each Unit in advance of the actual Delivery of the Unit. Supplier shall Deliver each Major Component by the date(s) set forth in the Scheduled Major Component Delivery Dates attached to this Contract as Attachment 5, "Scheduled Major Component Delivery Dates". Partial shipments will be allowed. Supplier shall be permitted to deliver the equipment in advance of the Schedule Major Component Delivery Dates; however, such revised Delivery date shall not occur prior to the Scheduled Major Component Delivery Date, unless otherwise agreed by the Parties. Supplier shall deliver the Equipment Deliver Duty Paid (DDP per Incoterms 2010) to the Delivery Point.

Supplier will unload and place all designated Equipment (including but not limited to RICE generators) on the engine foundations. If there is a delay in unloading and placing the designated Equipment on foundations that Supplier did not cause, Supplier will be entitled to a Change Order.

- C. Delivery Liquidated Damages. If any Major Component associated with any Unit is not delivered on or before their Scheduled Major Component Delivery Date for reasons attributable to Supplier and not excused elsewhere in this Contract, Supplier shall pay as liquidated damages for each such Major Component, and not as a penalty, a sum of \$15,000.00 per day for the first thirty (30) days, and \$30,000.00 per day thereafter, until actual Delivery of all Major Components of such Unit.
- **D.** Document Submittal Delivery Delay. If any of the Document Submittals associated with the Contract are not delivered to Purchaser on or before their Submittal Delivery Date for reasons attributable to Supplier, and not excused elsewhere in this Contract, Supplier shall pay Liquidated

Damages, and not as a penalty, in the amount of \$500 per day for each drawing/document package identified in Technical Specifications Section 481126 - Attachment 2 until actual delivery of the Submittal.

**E.** Risk of Loss. With respect to each item of Equipment, Risk of Loss, the parties specifically agree that, regardless of passage of title, the risk of loss to any of the Work and to any goods, materials, Equipment and furnishings, provided or to be provided under the Contract, shall remain with Supplier until Date of Substantial Completion. Should any of the Work, and goods, materials, Equipment and furnishings, be destroyed, mutilated, defaced or otherwise damaged, the Supplier shall repair or replace them at no additional costs to the City. Any performance bond or insurance protection required by this Contract or otherwise provided by the City or Supplier shall in no way limit the responsibility of the Supplier under this Section.

#### **ARTICLE 12 – Reserved**

#### **ARTICLE 13 - Performance Guarantees**

A. Performance and Damages. All testing shall be conducted in accordance with Attachment 6 and/or Attachment 7. Supplier guarantees that the Unit will achieve the Guarantied Power Output, Guaranteed Heat Rate, and Noise Guarantees.

If the performance of the Unit fails to achieve the Power Output or Heat Rate Guarantees after the final performance test provided for in Attachment 6, Supplier shall pay to Purchaser as liquidated damages, and not as a penalty, a sum calculated in accordance with Attachment 9. The specific formula for the calculation of liquidated damages for failure to meet Power Output, and/or Heat Rate shall be as indicated in Attachment 9. Definitions of Power Output and Heat Rate are also indicated in Attachment 9.

**B.** Other Remedies. Liquidated damages are not applicable regarding Guaranteed Noise level. In lieu of any damages, Supplier has a duty to adjust and repair the Unit until the Guaranteed Noise level is met. ("Must Meet Remedy"). Likewise, Liquidated damages are not applicable regarding Guaranteed Emissions (Opacity, NOx, CO, VOC, PM2.5, SO2, NH3). In lieu of any damages, Supplier has a duty to adjust and repair the Unit until all Guaranteed Emission levels are met ("Must Meet Remedy").

In addition to the Performance Guarantees for Power Output, Heat Rate, Supplier guarantees that the Unit will meet the Minimum Power Output. If the Unit fails to meet the Minimum Power Output during the performance test, in addition to liquidated damages, Supplier shall adjust, repair and or replace the Unit until the Minimum Power Output is met ("Must Meet Remedy") as demonstrated by a new performance test.

All costs for performing the new performance test are set forth in Article 1, Definitions, "Unimpeded Access."

**ARTICLE 14 – Reserved** 

**ARTICLE 15 - Reserved** 

#### ARTICLE 16 - Observation, Inspection and Factory Testing

- **A. Observation at the Site.** Supplier shall be afforded access during normal business hours to observe the work in progress at the Site. Supplier may visit the Site at any time or times, or may maintain representatives to observe Purchaser's or Purchaser's contractors work, provided such activity and inspections do not interfere with the Work.
- **B.** Inspections. Tests, and Progress Evaluations at Contractor's Facilities. Purchaser shall be afforded access to Supplier's facilities provided reasonable written notice is given by Purchaser. Purchaser's inspector shall be provided access to Supplier's facilities during normal business hours to obtain information on production progress and make inspections. Purchaser shall have complete access to those areas concerned with Equipment; however, such access shall not include restricted areas where Work of a proprietary nature is being conducted. It is understood that no additional testing, other than required by the Contract, shall be required of Supplier, unless requested through a Change Order. Supplier shall not be required to delay manufacturing or other activities to accommodate Purchaser's inspection.
- **C.** Inspections and Tests at Suppliers' Facilities. Subject to the conditions set forth in the foregoing paragraph, Supplier will make reasonable efforts to allow for Purchaser's access to its Suppliers' facilities for the purposes described in the paragraph above.
- **D.** Inspection Not Acceptance. Purchaser's inspection of the Equipment or its failure to inspect does not relieve Contractor of its obligation to fulfill the requirements of this Contract, nor is it to be construed as acceptance by Purchaser.

## **ARTICLE 17 - Warranty**

- A. Warranty Period. Notwithstanding the Long Term Services Agreement set forth in accordance with Article 5(B), Supplier shall also warrant the Equipment and the associated Services on the terms set forth in this Article, for whichever period shall expire first (the "Warranty Period"): i) twenty four (24) months following Substantial Completion; or ii) thirty-six (36) months following Delivery of the Equipment to the Site.; or iii) Additional five (5) years Extend Warranty after Substantial Completion (see Additive Alternate No. 2)
- **B.** Warranty. Supplier warrants to Purchaser that during the Warranty Period, the Equipment to be delivered hereunder shall be:
  - (1) designed and fit for the purpose of generating electric power when operated in accordance with Supplier's specific written operation instructions or, in the absence thereof, in accordance with generally accepted operation practices of the electric power producing industry,
  - (2) free from defects in design, material, workmanship and title;
  - (3) the Services shall be performed in a competent, diligent manner; and
  - (4) in compliance with 42 U.S.C. § 7541.
- **C. Remedy.** Supplier, at its sole cost, shall promptly repair or, at its discretion, replace any part or component of the Equipment which appears defective during the Warranty Period as a result of faulty design, materials, and/or workmanship; provided, when required by Supplier, that **such** part or parts replaced be returned to Supplier, at Supplier's cost, to the place instructed by Supplier. Purchaser shall take appropriate steps to prevent any defect from becoming more serious and to enable Supplier to rectify the aforesaid defect. Any warranty claims or requests with respect to

Supplier's warranty must be made in writing as provided for in Notice provision during the Warranty Period.

Replaced parts shall become Supplier's property. Supplier shall bear all costs of repairing or replacing the defective parts originally supplied by Supplier, as well as the shipping costs of the defective parts and of the repaired or replacement parts between the Facility and the place of repair or replacement as instructed by Supplier.

**D.** Exclusions. Supplier does not warrant the Equipment or any repaired or replacement parts against normal wear and tear, including that due to environment or operation, type of fuel, detrimental air inlet conditions or erosion, corrosion or material deposits from fluids.

#### **ARTICLE 18 - Reserved**

## ARTICLE 19 - Compliance with Laws, Codes and Standards

The Contract Price is based on the engineering and manufacture of the Equipment in accordance with Supplier's design criteria, manufacturing processes and procedures and quality assurance programs, so as to comply as of the Effective Date with:

- those portions of the codes and standards identified in Attachment 2 Technical Specification which Supplier has deemed applicable to the Equipment ("Codes and Standards"),
- the applicable national Laws of the country where the relevant Equipment is installed ("National Laws"),
- the applicable Laws of the State of Louisiana where the relevant Equipment is installed ("Local Laws"),
- the Site Conditions (including temperature, humidity, elevation and any seismic or windloading requirements) identified by Purchaser prior to Effective Date and set forth in Attachment 2 Technical Specification Reciprocating Internal Combustion Engine Units.

Supplier shall operate and maintain equipment installed, perform testing of said equipment, and provide training to Purchaser consistent with the Clean Air Act, the Louisiana Environmental Quality Act, amu any applicable federal and state regulations.

Supplier shall fully indemnify, defend, save harmless and protect Purchaser their officials, employees, successors, assigns, subsidiaries and Affiliates, and employees of all of them, against any fines or penalties paid by Purchaser to government or regulatory authorities arising from Supplier's noncompliance with such laws, regulations, or permit.

#### **ARTICLE 20 - Hazardous Materials**

For each chemical substance that Supplier brings onto Purchaser Site, Supplier shall furnish all appropriate shipping certification; labeling in compliance with the Workplace Hazardous Materials Information System; and Material Safety Data Sheets in compliance with the Workplace Hazardous Materials Information System.

If, at the Site, Supplier encounters toxic substances, hazardous substances or hazardous wastes, (as such terms may be defined in any statute or ordinance or regulations promulgated by any federal, state or local governmental authority of the United States or the country of the Site) (collectively, the "Hazardous Materials") not brought onto the Site by Supplier, which require special handling and/or disposal, Supplier shall immediately notify Purchaser and not further exacerbate the existing conditions, and Purchaser shall immediately take measures required by federal and state laws and regulations to eliminate such hazardous conditions so that the work under the Contract may safely proceed. If any such Hazardous Materials cause an increase in Supplier's cost of or the time required for performance of any part of the work, an equitable adjustment shall be made in the price and schedule. Purchaser agrees to properly dispose of all Hazardous Materials produced or generated in the course of Supplier's work at the Site. Purchaser shall indemnify Supplier for any and all claims, damages, losses, causes of action, demands, judgments and expenses arising out of or relating to (i) the presence of any Hazardous Materials which are present on the Site prior to the commencement of Supplier's work or (ii) improperly handled or disposed of by Purchaser or (iii) brought on to the Site or produced thereon by parties other than Supplier.

#### ARTICLE 21 - Environmental, Safety, and Health Regulations (ES&H)

While on the premises of Purchaser, Supplier and its employees shall comply with all applicable environmental, safety and health laws, regulations, and ordinances and with the safety, health and plant regulations of Supplier and Owner, and shall ensure that all of its employees and agents have a safe place of work on said premises. Supplier shall keep said premises and the vicinity thereof clean of debris and rubbish caused by its work and, upon completion of its work, shall leave the premises clean and ready for use. Upon request of Purchaser or Owner, and at no cost or expense to Purchaser or Owner, Supplier shall promptly remove from said premises any person under the control of Supplier who violates any of the aforesaid environmental, safety and health laws, regulations, ordinances or plant regulations or who may justifiably cause or threaten to cause: a breach of the peace.

## **ARTICLE 22 – Safety**

Supplier shall proceed with the Work in a manner dictated by all applicable federal and state safety regulations, Purchaser Safety Manual, and safe practice, using materials, tools and rigging of a safe character. Supplier shall strictly comply with these laws, rules and regulations including, but not limited to, OSHA requirements, and shall provide documented evidence of that compliance upon the Designated Representative's request. Supplier shall provide and use all protective devices to permit safe working conditions for Supplier's employees and to prevent hazards to employees of other suppliers, Purchaser and its employees, or the public. While on Purchaser's property, Supplier's personnel shall wear appropriate personal protection equipment. If, in Purchaser's opinion, Supplier is not proceeding with its Work in a safe manner or in accordance with federal, state, or Purchaser safety regulations, Purchaser may issue a Safety Violation Notice or otherwise stop the Work and direct Supplier to rectify the unsafe conditions immediately. If Supplier fails to promptly rectify the situation, and it is within his scope of supply to control, Purchaser may proceed to rectify the unsafe conditions at Supplier's reasonable expense. Compliance: with this paragraph shall affect neither the Contract Price nor the schedule. Supplier shall comply with all Purchaser's and OSHA confined space requirements and procedures, including Purchaser's permitting requirements.

Purchaser will take all necessary precautions, at all times, for the safety of Supplier's personnel at Site. This includes, but is not limited to, instruction of Purchaser's safety practices, proper and safe handling of hazardous substances and protection of Supplier's personnel from exposure thereto, energization / de-energization of all power systems (electrical, mechanical and hydraulic) using a safe and effective lock out tag procedure and conducting daily safety meetings during construction and start up.

Supplier may, from time to time, conduct safety audits to insure safe conditions exist and make recommendations to Purchaser concerning same. Neither the conduct or non conduct of safety audits nor the making of any recommendation by Supplier shall relieve Purchaser of the responsibility to provide a safe place to work. If Supplier's personnel require medical attention, local Purchaser facilities will be made available to Supplier's personnel for the duration of such needs.

If, in Supplier's opinion, the safe execution of Services at the Site is, or is apt to be, imperiled by local conditions, Supplier may remove some or all of its personnel from the Site and/or supervise performances of all or any part of its. Services and/or evacuate its personnel and Purchaser shall assist in said evacuation, any of which shall be considered to be an Excusable Delay.

Supplier will comply with health and safety applicable standards. To the extent a health and safety issue is identified, Supplier will promptly make all reasonable efforts to correct any safety conditions. If Purchaser or Supplier issues an order stopping all or part of the work due to a Safety issue that is not attributable to Supplier, this shall be treated as Purchaser delay and Supplier shall be entitled to a Change Order. Supplier shall remain responsible for general site safety.

## ARTICLE 23 – Plant Protection and Security

If the Work requires Supplier's employees to enter a protected or policed area of the Site, including all utility operating areas, Supplier shall arrange, in conjunction with Purchaser's security, for visible identification badges for all Supplier's personnel employed on such Work. Supplier's trucks or common carriers entering the Site are subject to inspection.

Supplier, its employees, and its sub subcontractors or suppliers, shall observe traffic rules, speed regulations, or other safety rules in the operation of its vehicles and equipment on the Site, as established by Purchaser. Supplier's employees shall comply with Purchaser's all other applicable conduct policies while on the Site.

## **ARTICLE 24 - Project Management**

- **A. Original Equipment Definition.** The original Equipment definition is established in Attachment 2.
- **B.** Customer Kickoff Meeting. Supplier shall hold a Customer Kickoff Meeting within Thirty (30) days of the Effective Date.
- C. Supplier Project Manager. No later than the execution date of the Contract, Supplier will appoint an individual person as its Project Manager and will authorize that person to act on its behalf

in matters connected with this Contract or the Project.

- **D.** Global Sourcing. Supplier reserves the right in its discretion to obtain, source, subcontract, manufacture, fabricate and assemble the Equipment and any of its components and systems from non-domestic concerns; it being understood that the quality standards and warranties of Supplier under this Contract shall be adhered to in all cases irrespective of source. Supplier shall be responsible for those costs associated with its global sourcing and manufacturing activities that occur prior to title transfer to Purchaser. Purchaser shall not be required to incur any additional liability under this Contract due to Supplier's global sourcing.
- *E. Electronic Communication.* The Parties agree to use Purchaser's Document *Management* System as the medium for the storage and transmittal of drawings, specifications and project reports.

#### **ARTICLE 25 - Changes**

- A. Changes Resulting from Changes in Codes and Changes in Law. If, after the effective date of this Contract, any change to the Codes and Standards, Ambient Site Conditions, Site Requirements or a specific Change in Law that requires a change to the Equipment, Supplier shall be entitled to a Change Order that includes equitable adjustments to the Contract Price and to the Scheduled Major Component Delivery Date(s) and other provisions of this Contract that are impacted. If Supplier is entitled to a Change Order pursuant to the provisions of this paragraph, Supplier shall submit to Purchaser a draft Change Order which will be subject to Purchaser's approval.
- **B.** Purchaser Initiated Changes. Purchaser shall have the right to request that Supplier consider changes to the Equipment or the Services, including modifications, alterations or additions. If Purchaser wishes to request such a change, Purchaser shall notify Supplier in writing. Within fifteen (15) Days after receipt of such notice (unless otherwise extended by mutual agreement), Supplier shall advise Purchaser of the feasibility of the requested change, and shall submit to Purchaser a draft Change Order, unless the matter requires further investigation and research in which case Supplier will provide an estimate of the time frame in which Supplier will be able to submit a detailed response to Purchaser.
- **C. Supplier Initiated Changes.** If Supplier wishes to propose a change, or if Supplier is entitled to at Change Order pursuant to the provisions of this Contract, Supplier shall submit to Purchaser a draft Change Order.
- **D.** Contents of Draft Change Order. The draft Change Order shall include:
  - (1) a technical description of the proposed change in such detail as Purchaser may reasonably require,
  - (2) a lump sum firm price adjustment (increase or decrease) in the Contract Price, if any,caused by the proposed change,
  - (3) all potential effect(s), if any, on the Scheduled Major Component Delivery Date(s), or any other schedule or date for performance by Supplier hereunder caused by the proposed change, and
  - (4) all potential effect(s), if any, on Supplier's ability to comply with any of its obligations hereunder, including Supplier's warranties and Performance Guarantees caused by the proposed change.

- **E.** Process for Concluding Change Order. Purchaser shall, within ten (10) Days from the date of receipt of such information, either approve or disapprove the draft Change Order in writing or request additional time to consider the draft Change Order. If Purchaser approves the Change Order, Purchaser and Supplier shall then sign the Change Order that shall operate as an amendment to this Contract. If Purchaser has not approved or disapproved the draft Change Order within ten (10) Days, Supplier shall have the right to reissue the Change Order for Purchaser review.
- **F.** Agreement Required. Except for Change Orders to which Supplier is expressly entitled pursuant to Article 25 B., all changes under this Contract shall be subject to mutual agreement, and no Change Order will be effective until signed by both Parties.

## **ARTICLE 26 - Excusable Delays**

- **A.** Excusable Delays. Supplier shall not have any liability or be considered to be in breach or default of its obligations under this Contract to the extent that performance of such obligations is delayed or prevented, due to, but not limited to, the following ("Excusable Delay"):
  - (1) Acts of God, fires, severe weather conditions, earthquakes, strikes or other labor disturbances, floods, war (declared or undeclared), terrorism, epidemics, civil unrest, riots: or
  - (2) delays in the prerequisite work of Purchaser, Purchaser's other contractors or suppliers, or other acts (or omissions) of Purchaser.

Supplier shall notify Purchaser of any such delay. Supplier may be entitled, after consultation with City to an adjustment to the Contract Price, based on any additional costs and expenses derived from an Excusable Delay provided Supplier takes all reasonable actions necessary to mitigate or avoid such additional costs and expenses. The Scheduled Major Component Delivery Date(s) or date of performance shall be extended for a reasonable period of time necessary to overcome the effect of such Excusable Delay. Changes to the Scheduled Major Component Delivery date shall be executed through a mutually agreeable Change Order.

- **B.** Termination for Extended Delay. If any Excusable Delay extends for more than one hundred eighty (180) Days and the Parties have not agreed upon a revised basis for continuing the Work at the end of the Excusable Delay, including adjustment of the Contract Price, then either Party (except where Excusable Delay is caused by Purchaser, in which event only Supplier), upon thirty (30) Days written notice, may terminate this Contract with respect to the portion of Equipment to which titlehas not yet passed, whereupon Purchaser shall promptly pay Supplier termination charges as set forth in the Termination Schedule.
- **C.** Notice of Labor Disputes. Whenever Supplier has knowledge that any actual or potential labor dispute may delay or threatens to delay the timely performance of this Contract, Supplier shall immediately give Purchaser written notice thereof and progress made in settlement of such dispute.

#### **ARTICLE 27 - Patents**

- **A.** Indemnity. Supplier shall indemnify Purchaser against any damages, costs and expenses arising out of any suit, claim, or proceeding (a "Claim") alleging that the Work infringes a patent in effect in the U.S., Canada, an EU member state or the country of installation (provided there is a corresponding patent issued by the U.S. or an EU member state or the country of installation) if:
  - (1) Purchaser promptly notifies Supplier in writing of the Claim;

- (2) Purchaser makes no admission of liability and gives Supplier sole authority, at Supplier's expense, to direct and control the defense and any settlement and compromise negotiations; and
- (3) Purchaser provides Supplier with full disclosure and assistance that may be reasonably required to defend any such Claim.
- **B.** Exclusions. Supplier shall have no obligation or liability to the extent that any Claim is based upon:
  - (1) any Work that has been altered by any Party other than Supplier;
  - (2) the combination or use of the Work with other products not supplied by the Supplier when the combination is part of any alleged infringement;
  - (3) failure of Purchaser to implement any update provided by Supplier that would have prevented the Claim;
  - (4) unauthorized use of the Work, whether or not in breach of the provisions of this Contract; or The Parties shall defend any suit or proceeding based upon, and shall indemnify and hold the other Party harmless against, any claim that any Work made, modified or performed to the extent that such claim is based upon Indemnifying Party's specifications infringes any patent.
- **C.** Remedies. If the Work or any portion thereof becomes the subject of a Claim, Supplier may at its option, either:
  - (1) settle or defend the claim or any suit or proceeding and pay all damages and costs awarded in it against Purchaser,
  - (2) procure for Purchaser the right to continue using the Equipment, or
  - (3) modify the Equipment so that it becomes non infringing, or
  - (4) replace the Equipment with non infringing Equipment;
  - (5) remove the infringing Equipment or part thereof and refund the price of the infringing Equipment or part thereof.

If, in any suit arising from such a claim, the continued use of the Equipment for the purpose intended is forbidden by any court of competent jurisdiction, Supplier shall at its option take one or more of the actions under (2), (3), (4), or (5) above.

- **D.** Sole Liability. The above states Supplier's entire liability for indemnification for patent, trademark, copyright, and trade secret infringement for the Work.
- **E.** Exclusion. Notwithstanding this Article, with respect to the Work or any portions thereof that are not manufactured or developed by the Supplier, only the indemnity of the manufacturer or developer, if any, applies

## **ARTICLE 28 - General Indemnity**

A. General Indemnity. Each Party (each an "Indemnifying Party"), subject to Louisiana Law, shall be liable to and indemnify the other Party, its officers, employees, agents and Suppliers (each an "Indemnified Party") for bodily injury to third parties (including employees claims that are specifically not covered by workers compensation) or damage to tangible third party property, and, at its expense, shall defend against and hold the Indemnified Party harmless from any such claims

raised by a third party arising in connection with this Contract, to the extent they are caused by the negligence or willful misconduct of the Indemnifying Party or its officers, employees, agents or Suppliers and to the extent the Indemnifying Party is liable to the third party under applicable law. Notwithstanding the foregoing, for third party claims made against Purchaser, this provision does not waive the defense of governmental immunity otherwise available.

- **B.** Concurrent Negligence. If damage or injury is caused by the joint or concurrent negligence of the Parties, their officers, employees, agents, or Suppliers, the Parties shall bear the loss in proportion to their officers', employees', agents' or Suppliers' percentage of negligence.
- *C. Notice.* The indemnities provided in this Article shall apply only if the Party seeking indemnity gives the Indemnifying Party prompt notice of any claim and provides the Indemnifying Party all necessary information and assistance so that the Indemnifying Party may, at its option, defend or settle the claim.
- **D.** "Third Parties" Defined. "Third parties" under this Article do not include the Parties, the owner of the Site, their affiliates, agents, successors or assigns, any operation or maintenance supplier of the Parties or the owner of the Site, or any entity:
  - (1) with an equity or security interest in any Party or the owner of the Site, or their assets or property
  - (2) that seeks to claim any rights, power or privileges of one of the Parties or the owner of the Site, or
  - (3) that seeks to claim as a third party beneficiary of this Contract or one of the Parties or the owner of the Site.

No portion of the Equipment, the Facility, electricity, fuel or hydrocarbons is "Third Party Property" for the purposes of this Article.

#### **ARTICLE 29 - Insurance**

Supplier shall provide and maintain during the progress of the work, and until its completion, the following insurance:

- **A. Workers' Compensation Insurance.** Workers' compensation insurance in an amount equal to the limits of liability and in the form prescribed by the laws of Louisiana, for all of supplier's and its subcontractors' employees employed on the work.
- **B.** Employer's *Liability Insurance*. Employer's liability insurance with combined single limits of not less than THREE MILLION AND 00/100 DOLLARS (\$3,000,000.00) for bodily injury by accident or disease, including death at any time resulting from that injury.
- C. Commercial General Liability Insurance. Commercial General Liability, for bodily injury, including death, with combined single limits of not less than THREE MILLION AND 00/100 DOLLARS (\$3,000,000.00) for all injuries and/or deaths resulting from any one occurrence The limits of liability for property damage shall not be less that THREE MILLION AND 00/100 DOLLARS (\$3,000,000.00) for each occurrence, and not less than SIX MILLION AND 00/100 DOLLARS (\$6,000,000.00) in the aggregate. This insurance shall include coverage for special

hazards, such as explosion, collapse, damage to underground utilities, supplier's protective and completed operations. The completed operations liability insurance shall be for a period of two (2) years after acceptance of the work and substantial completion certified by the City.

- **D. Public** Liability **Insurance—Bodily Injury.** Public liability insurance for bodily injury (including supplier's protective and contractual liability coverage) with combined single limits of not less than THREE MILLION AND 00/100 DOLLARS (\$3,000,000.00) for injury to, or for death of, any one person.
- **E. Public Liability Insurance--Property Damage.** Public liability insurance covering property damage (including supplier's protective and contractual liability coverage), protecting supplier from claims resulting from damage, including loss of use, to existing property or property being installed by persons other than supplier or its subcontractors, in the amount of THREE MILLION AND 00/100 DOLLARS (\$3,000,000.00).
- **F. Automobile Liability Insurance.** Automobile liability insurance shall cover all owned, nonowned, hired and rented automotive or motor vehicle equipment used in the performance of the work. It shall include bodily injury coverage in an amount not less than ONE MILLION AND 00/100 DOLLARS (\$1,000,000.00) for injury to, or for the death of, any one person and, subject tothe same limitation for each person, in an amount not less than THREE MILLION AND 00/100 DOLLARS (\$3,000,000.00) for each occurrence. Property damage coverage shall be in an amount not less than ONE MILLION AND 00/100 DOLLARS (\$1,000,000.00) for each occurrence.
- **G. Umbrella/Excess Liability Insurance.** An Umbrella or Excess Liability Policy with combined single limits of not less than TWENTY-FIVE MILLION AND 00/100 DOLLARS (\$25,000,000.00).

**H.** Terms. Each aforementioned policy of insurance shall:

- (1) Have a "Separation of Insureds" or "Severability of Interests" clause, indicating essentially that--except with respect to the limits of insurance, and any rights or duties specifically assigned to the first named insured--this insurance applies as if each named insured were the only named insured, and separately to each insured against whom claim is made or suit is brought;
- (2) Name the City as an Additional Insured with the provision that the insurance company waives its right of subrogation against the City;
- (3) State the aforementioned policies of insurance are primary to any insurance or self-insurance program of the City; and
- (4) Shall not contain any X, C, and U Exclusions.
- *I.* Evidence *of Insurance*. The following applies to all insurance coverage required to be provided to TPCG. The following documents must be provided as evidence of insurance coverage:
  - A copy of the policies' declaration pages, showing the insuring company, policy effective dates, limits of liability, and the schedule of forms and endorsements. TPCG reserves the right to require copies of all policies and requested endorsements.
  - A copy of the endorsement naming TPCG as an Additional Insured, showing the policy number, and signed by an authorized representative of the insurance company.

- A copy of an endorsement stating that the coverages provided by this policy to TPCG or any other named insured shall not be terminated, reduced or otherwise materially changed without providing at least sixty (60) days prior written notice to TPCG.
- *J.* Policy *Rating and Primary Insurance Requirements*. All policies shall be subject to approval by the City's Risk Manager as to insurance company (must be rated A-VII or better in the A.M. Best's Key Rating guide and licensed to do business in the State of Louisiana or issued as a surplus lines by a Louisiana Surplus Lines broker), form and coverage, and primary to all other insurance.

## **ARTICLE 30 - Suspension**

- A. Suspension by Purchaser of Work at Site. Purchaser shall have the right, at any time, to suspend Work at the Site upon written notice to Supplier. Any direct cost incurred by Supplier in accordance with any such suspension (including storage costs) shall be payable by Purchaser upon submission of Supplier's invoice(s), provided that actions of Supplier did not directly cause Purchaser to suspend Work on the Site. Performance of Supplier's obligations shall be extended for a period of time reasonably necessary to overcome the effects of such suspension. "Suspension right limited to one hundred and eighty (180) days in the aggregate.
- **B. Suspension by Supplier.** Supplier shall have the right to suspend all Work, including the delivery of any Equipment, upon the failure of Purchaser to make any payment in accordance with Article 6A. Without limiting the foregoing, Supplier shall have the right to suspend any shipment of the Equipment and may, but shall not be obligated to, ship such Equipment to storage in accordance with Article 11 if all payments due prior to the applicable Scheduled Major Component Delivery Date have not been made. Any cost incurred by Supplier in accordance with any such suspension (including storage costs) shall be payable by Purchaser upon submission of Supplier's invoice(s). Performance of Supplier's obligations shall be extended for a period of time reasonably necessary to overcome the effects of such suspension, except that Supplier's suspension shall not be deemed to extend the Warranty Period hereunder, provided that actions of Supplier did not directly c:ause Purchaser to suspend Work on the Site.

#### **ARTICLE 31 - Reserved**

#### **ARTICLE 32 - Termination for Cause**

The parties right to termination for cause are governed by Louisiana law.

#### **ARTICLE 33 - Reserved**

## **ARTICLE 34 - Proprietary Information**

A. Information Subject to Restriction. In connection with this Contract, Supplier and Purchaser, or its representatives including its Engineer/Architect, (both as to information disclosed, a "Disclosing Party") may each provide the other (both as to information received, a "Receiving Party") with "Confidential Information."

"Confidential Information" means;

- (1) all pricing for the Work,
- (2) all terms of this Contract,
- (3) all draft documents related to pricing and terms of this Contract,
- (4) all information that is designated in writing as "confidential" or "proprietary" by the Disclosing Party at the time of written disclosure, and
- (5) all information that is orally designated as "confidential" or "proprietary" by the Disclosing Party at the time of oral disclosure and is confirmed to be "confidential" or "proprietary" in writing within ten (10) Days after oral disclosure.

The obligations of this Article shall not apply as to any portion of the Confidential Information that:

- (6) is or becomes generally available to the public other than from disclosure by the Receiving Party, its representatives or its Affiliates;
- (7) is or becomes available to the Receiving Party or its representatives or Affiliates on a nonconfidential basis from a source other than the Disclosing Party when the source is not, to the best of the Receiving Party's knowledge, subject to a confidentiality obligation to the Disclosing Party;
- (8) is independently developed by the Receiving Party, its representatives or Affiliates, without reference to Confidential Information;
- (9) is required to be disclosed by law, a valid legal process or a government agency; or
- (10) is approved for disclosure in writing by an authorized representative of the Disclosing Party.

# **B.** Obligations of Receiving Party. Subject to the limitations set forth in part (A) above, the Receiving Party agrees:

- (1) to use the Confidential Information only in connection with this Contract and permitted use(s) and maintenance of the Work,
- (2) to take reasonable measures to prevent disclosure of the Confidential Information, except to its employees, agents or financing parties who have a need to know for the Receiving Party to perform its obligations under this Contract or to use and maintain the Work,
- (3) not to disclose the Confidential Information to a competitor of the: Disclosing Party, and
- (4) Not to advertise or publicize to any third party the fact that Supplier has received this Contract nor any details of this Contract, information or data, technical or otherwise.

The Receiving Party shall obtain a written commitment from any recipient of Confidential Information to comply with the terms of this Article. Confidential Information shall not be reproduced without the Disclosing Party's written consent, such consent not to be unreasonably withheld, and the Receiving Party shall return all copies of Confidential Information to the Disclosing Party upon request except to the extent that this Contract entitles the Receiving Party to retain the Confidential Information. Supplier may also retain one copy of Purchaser's Confidential Information until all of Supplier's potential liability under this Contract terminates.

- C. Disclosure Pursuant to Legal Process. If either Party or any of its Affiliates or representatives is required by law, legal process or a government agency to disclose any Confidential Information, including requirements to disclose under the Freedom of Information Act (FOIA), that Party agrees to provide the Disclosing Party with prompt written notice to permit the Disclosing Party to seek an appropriate protective order or agency decision or to waive compliance by the Receiving Party with the provisions of this Article.
- **D.** Intellectual Property. Nothing in this Article grants the Receiving Party any license under any invention, patent, trademark or copyright now or later owned or controlled by the Disclosing Party.
- **E. Disclosure by Purchaser.** Purchaser shall not disclose Confidential Information to Supplier unless it is required to do so to enable Supplier to perform Work under this Contract. If Purchaser does disclose Confidential Information, Purchaser warrants that it has the right to disclose the information, and Purchaser shall indemnify and hold Supplier harmless against any claims or damages caused by and to the extent of Purchaser's improper disclosure.
- **F. Term.** As to any individual item of Confidential Information, unless otherwise agreed by the Parties, the restrictions of this Article shall expire five (5) years after the date of disclosure of the Confidential Information.
- *G. Priority.* This Article does not supersede any separate confidentiality or nondisclosure agreement signed by the Parties.

#### **ARTICLE 35 - Software**

- A. Grant of License. Only to the extent necessary to operate and use the Equipment supplied by Supplier, for the purposes for which such Equipment is supplied, Supplier grants to Purchaser a non exclusive right to use Software, firmware, programs, Confidential Information and any other technology necessary to operate and use the Equipment delivered to Purchaser by Supplier. This right shall be non assignable and nontransferable by Purchaser (except for sub licenses to any subsequent purchaser of the Equipment) and shall apply and be irrevocable with respect to the Equipment purchased under this Contract and paid for in full by Purchaser. All information Supplier provides under the license shall be deemed "Confidential Information".
- **B. Limitations.** Unless otherwise agreed to by Supplier, Purchaser has only the right to install and use a single copy of the Software for each Unit of associated Equipment. Notwithstanding the foregoing, the Parties acknowledge and agree: that Purchaser may install additional copies of the Software for the purposes of operating the Equipment. Purchaser may make one copy of the Software for backup purposes only, in machine readable form. Purchaser has no right to
  - (1) disassemble, decompile, reverse engineer, or otherwise attempt to reconstruct or discover the source code of the Software or third party

Software;

- (2) remove any product identification, copyright, trademark, or ether notice from the Software;
- (3) modify, adapt or translate the Software.

C. Third Party Software. Certain Software Supplier provides to Purchaser may contain third party Software which may be provided with a separate end user agreement. Use of such third party Software and its source code shall be governed by this Contract and such end user license agreements. To the extent Supplier provides third party software with a separate end user agreement, for which there is any conflict between the terms of this Contract and the applicable end user license agreement, the end user license agreement shall prevail. If requested by Supplier at any time, Purchaser shall execute a copy of the applicable end user license agreement.

#### **ARTICLE 36 - Personal Data Protection**

"Personal Data" is any information relating to an identified or identifiable natural person ("Data Subject"). Purchaser and Supplier each agree that any Personal Data obtained from the ether Party will be deemed "Confidential Information" of the ether Party as defined in this Contract whether or not the Personal Data is publicly available. Purchaser and Supplier shall provide security for the Personal Data they receive from each other and limit its disclosure and use. Purchaser and Supplier each represent that in providing Personal Data to one another they will comply with all applicable Laws and regulations, including but not limited to providing notices to or obtaining consents from the Data Subjects when required.

#### **ARTICLE 37 - Reserved**

#### ARTICLE 38 - Assignment and Change in Control

- A. The Parties' Right to Assign. Neither this Contract nor any interest herein nor any claim hereunder (other than accounts receivable or contract rights to payment) shall be assigned or transferred by either Party, nor shall performance hereunder be delegated by either Party to any other party without prior written authorization of the other Party, such consent not to be unreasonably withheld.
- **B.** All Other Assignments and Transfers by Purchaser. All other assignments or transfers by Purchaser of any or all of its duties or rights under this Contract (by operation of law or otherwise) are subject to Supplier's prior written consent. Further, Purchaser agrees that, until Purchaser receives title to the Equipment as set forth herein, Purchaser shall not, directly or indirectly sell, offer to sell or otherwise broker the Equipment.

Purchaser, however, retains the unrestricted sole right to assign this Contract to its Construction Supplier for the purpose of the execution and completion of the Project. Upon such assignment, Supplier shall coordinate with the assignee all, or part of, the

activities associated with engineering, fabrication, assembly, shop testing, delivery and field testing of the equipment, that otherwise would have been done with the Purchaser as established in this Contract.

#### **ARTICLE 39 - Contract Documents**

The following documents shall comprise and shall together be referred to as the "Contract:"

- (1) Main Contract body (Recitals, Article 1 through Article 47)
- (2) Attachment 1: Special Provisions
- (3) Attachment 2: Technical Specification Reciprocating Internal Combustion Engine Units; includes Scope of Supply
- (4) Attachment 3: Technical Services
- (5) Attachment 4: Reserved
- (6) Attachment 5: Scheduled Component Delivery Date(s)
- (7) Attachment 6: Performance Test Specification
- (8) Attachment 7: Guarantee Sheet
- (9) Attachment 8: Supplier's Document Submittal Schedule
- (10) Attachment 9: Performance Liquidated Damages
- (11) Attachment 10: Payment Schedules
- (12) Attachment 11: Non-Collusion Affidavit
- (13) Attachment 12: Attestations Affidavit
- (14) Attachment 13: Certification Regarding Debarment or Suspension
- (15) Attachment 14: Certification Regarding Lobbying

In the event of any conflict between the terms of this Contract, the provisions of the document first listed above shall prevail.

## **ARTICLE 40 - Dispute Resolution**

Any and all controversies, disputes or differences between the Parties to this Contract, if not amicably settled by the Parties within thirty (30) Days following written notice of dispute, shall be referred to senior management of the Parties for resolution. In the event the dispute has not been resolved within forty five (45) Days following referral to senior management, or such longer period as the Parties may mutually agree, then either Party may, subject to limitations and exclusions of liability and remedies herein, upon ten (10) Days' notice to the other Party, pursue their remedies at law.

## **ARTICLE 41 - Governing Law**

The laws of the State of Louisiana, including its conflict of laws provisions, shall govern the validity, performance, and enforcement of this Contract. The sole venue for the resolution of all disputes relative to this Contract shall be in the United States District Court for the Eastern District of Louisiana.

#### **ARTICLE 42 - Effective Date**

This Contract shall become effective when it is signed by both Parties ("Effective Date").

## **ARTICLE 43 - Acceptance of the Contract**

Acceptance of this Contract, whether by written acknowledgment or commencement of performance, is expressly limited to the provisions of the Contract, and no modification, deletion or addition shall be effective unless a duly authorized written amendment to the Contract, signed by Purchaser and Supplier, is entered into, notwithstanding any contrary or additional provisions (including any preprinted forms) in any communications from Supplier or payment or acceptance of delivery by Purchaser.

## **ARTICLE 44 - Right to Audit Records**

Supplier shall maintain relevant records pertaining to reports, documents, deliverables, employee time sheets, records of financial transactions, and other evidence, regardless of form, sufficient to properly reflect all costs claimed to have been incurred and services performed pursuant to this Contract relating specifically to the Technically Advisory Services, and Change Orders issued on a unit price basis only. It is specifically understand that no other aspects of this Contract are subject to audit. The scope of any audit shall be limited to the verification of invoices that were issued on a cost plus margin basis or on a time and materials basis (including Change Orders). All records shall be retained, and shall be subject to examination and audit by Purchaser's personnel or by Purchaser's agents (herein after "Authorized Auditors"), for a period of not less than three (3) years following final payment made by Purchaser hereunder or the expiration date of this Contract, whichever is later.

Supplier, as applicable to the Technical Advisory Services provided under this Contract, shall be subject at any time, with thirty (30) Days, prior written notice to audits or examinations by Authorized Auditors.

## **ARTICLE 45 - Entire Agreement**

This Contract represents the entire agreement between the Parties and supersedes in its entirety all prior agreements concerning the subject matter hereof, and no modification, amendment, revision, waiver, or other change shall be binding on either Party unless consented to in writing by the Party's authorized representative. Any oral or written representation, warranty, course of dealing, or trade usage not contained or referenced herein shall not be binding on either Party. Each Party agrees that it has not relied on, or been induced by, any representations of the other Party not contained in this Contract.

#### **ARTICLE 46 - Miscellaneous Provisions**

**A. Third Party Beneficiaries.** This Contract and its provisions are for the benefit of the Parties hereto and not for any other third party.

- **B.** Non-Waiver. Waiver by either Party of any right under this Contract shall not be deemed a waiver by such Party of any other right hereunder.
- *C. Invalidity.* The invalidity in whole or in part of any part of this Contract shall not affect the validity of the remainder of this Contract.
- **D.** No Nuclear Use. The Equipment and Services sold hereunder are not intended for application (and shall not be used) in connection with any nuclear installation or activity and Purchaser warrants that it shall not use the Equipment and Services for such purposes, or permit others to use the Equipment or Services for any such purposes. If, in breach of the foregoing, any such use occurs, Supplier shall have no liability for any nuclear or other damage, injury or contamination, and Purchaser shall indemnify Supplier, its Affiliates, Sub Suppliers and Suppliers of every type and tier against any such liability, whether arising as a result of breach of contract, warranty, indemnity, tort (including negligence), strict liability or otherwise.
- **E.** Non-Collusion Affidavit. In accordance with La. R.S. 38:2224, Supplier declares that it has provided TPCG with a fully executed Non-Collusion Affidavit, and same is attached hereto as Attachment 11 and incorporated and made a part of this Contract.
- **F.** Attestations Affidavit. Supplier acknowledges and agrees to comply with the provisions of La. R.S. 38:2212.10 and federal law pertaining to E-Verify in the performance of services under this Contract, La. R.S. 38:2227 regarding past criminal convictions of bidders, and La. R.S. 23:1726(B) regarding unpaid Workers' Compensation Insurance. Supplier's fully executed Attestations Affidavit is attached hereto as Attachment 12.
- **G.** Counterparts. This Contract may be signed in any number of counterparts, each of which shall constitute one and the same instrument.
- *H. Spare Parts.* Supplier shall provide Purchaser a 3 Year Recommended Spare Parts List for the Equipment, with prices and delivery lead times, not later than the Effective Date. Supplier shall indicate the minimum recommended inventory and identify the specific item or items to which each item applies for routine maintenance at installation, start up and continuous operation for each of the first three years.

Supplier shall also indicate whether the recommended spare is a stock item or special item, location of nearest supply point and approximate lead time required for shipment.

- *I. Independent Supplier.* Supplier is an independent contractor and shall not be regarded as an employee or agent of Purchaser.
- *J. Article Headings.* The captions used for the Articles in this Contract are inserted only as a matter of convenience and for reference and in no way define, limit, or describe the scope of the intent of this Contract or any Article hereof.

#### **ARTICLE 47 – Federal Provisions**

- A. Federal Reimbursement. TPCG may seek federal reimbursement for services under this agreement. FEMA requires this agreement to contain the applicable clauses described in Appendix II to the Uniform Rules under 2 C.F.R. § 200.326 and 2 C.F.R. Part 200, Appendix II. TPCG and Consultant (hereinafter, sometimes, "Contractor") agree to comply with the following federal provisions, where applicable. Contractor and TPCG agree to execute any amendments or addenda necessary to remedy the omission of any federal provisions from this contract which are necessary for the TPCG to obtain federal reimbursement where eligible.
- Equal Employment Opportunity. During the performance of this contract, the contractor agrees as follows: (1) The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause. (2) The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin. (3) The contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the V4 2020 Page 249 compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the contractor's legal duty to furnish information. (4) The contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment. (5) The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor. (6) The contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders. (7) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law. (8) The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (8) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance: Provided, however, that in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the contractor may request the United States to enter into such litigation to protect the interests of the United States. The applicant further agrees that it will be bound by the above equal opportunity clause with respect to its own employment practices when it participates in federally assisted construction work: Provided, that if the applicant so participating is a State, Territorial, or local government, V4 2020 Page 250 the above equal

opportunity clause is not applicable to any agency, instrumentality or subdivision of such government which does not participate in work on or under the contract. The applicant agrees that it will assist and cooperate actively with the administering agency and the Secretary of Labor in obtaining the compliance of contractors and subcontractors with the equal opportunity clause and the rules, regulations, and relevant orders of the Secretary of Labor, that it will furnish the administering agency and the Secretary of Labor such information as they may require for the supervision of such compliance, and that it will otherwise assist the administering agency in the discharge of the agency's primary responsibility for securing compliance. The applicant further agrees that it will refrain from entering into any contract or contract modification subject to Executive Order 11246 of September 24, 1965, with a contractor debarred from, or who has not demonstrated eligibility for, Government contracts and federally assisted construction contracts pursuant to the Executive Order and will carry out such sanctions and penalties for violation of the equal opportunity clause as may be imposed upon contractors and subcontractors by the administering agency or the Secretary of Labor pursuant to Part II, Subpart D of the Executive Order. In addition, the applicant agrees that if it fails or refuses to comply with these undertakings, the administering agency may take any or all of the following actions: Cancel, terminate, or suspend in whole or in part this grant (contract, loan, insurance, guarantee); refrain from extending any further assistance to the applicant under the program with respect to which the failure or refund occurred until satisfactory assurance of future compliance has been received from such applicant; and refer the case to the Department of Justice for appropriate legal proceedings.

- C. <u>Davis-Bacon Act</u>. (1) All transactions regarding this contract shall be done in compliance with the Davis-Bacon Act (40 U.S.C. 3141-3144, and 3146-3148) and the requirements of 29 C.F.R. pt. 5 as may be applicable. The contractor shall comply with 40 U.S.C. 3141-3144, and 3146-3148 and the requirements of 29 C.F.R. pt. 5 as applicable. (2.) Contractors are required to pay wages to laborers and mechanics at a rate not less than the prevailing wages specified in a wage determination made by the Secretary of Labor. (3.) Additionally, contractors are required to pay wages not less than once a week.
- D. <u>Copeland Anti-Kickback Act.</u> (1.) Contractor. The contractor shall comply with 18 U.S.C. § 874, 40 U.S.C. § 3145, and the requirements of 29 C.F.R. pt. 3 as may be applicable, which are incorporated by reference into this contract. (2.) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clause above and such other clauses as FEMA may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all of these contract clauses. (3.) Breach. A breach of the contract clauses above may be grounds for termination of the contract, and for debarment as a contractor and subcontractor as provided in 29 C.F.R. § 5.12.
- **E.** Compliance with the Contract Work Hours and Safety Standards Act.
- (1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek. (2) *Violation; liability for unpaid wages; liquidated damages*. In the event of any violation of the clause set forth in paragraph (b)(1) of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (b)(1) of this section, in the sum of \$26 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (b)(1) of this section.
- (3) Withholding for unpaid wages and liquidated damages. TPCG shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section.
- (4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (b)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any

subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (b)(1) through (4) of this section.

- (5) The contractor or subcontractor shall maintain payrolls and basic payroll records during the course of the work and shall preserve them for a period of three years from the completion of the contract for all laborers and mechanics, including guards and watchmen, working on the contract. Such records shall contain the name and address of each such employee, social security number, correct classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid.
- (6) Records to be maintained under this provision shall be made available by the contractor or subcontractor for inspection, copying, or transcription by authorized representatives of the Department of Homeland Security, the Federal Emergency Management Agency, and the Department of Labor, and the contractor or subcontractor will permit such representatives to interview employees during working hours on the job.

#### **F.** Homeland Security Acquisition Regulation Class Deviation 15-01 Clauses:

(1) Safeguarding of Sensitive Information (MAR 2015). (a) Applicability. This clause applies to the Contractor, its subcontractors, and Contractor employees (hereafter referred to collectively as "Contractor"). The Contractor shall insert the substance of this clause in all subcontracts. (b) Definitions. As used in this clause— "Personally Identifiable Information (PII)" means information that can be used to distinguish or trace an individual's identity, such as name, social security number, or biometric records, either alone, or when combined with other personal or identifying information that is linked or linkable to a specific individual, such as date and place of birth, or mother's maiden name. The definition of PII is not anchored to any single category of information or technology. Rather, it requires a case-by-case assessment of the specific risk that an individual can be identified. In performing this assessment, it is important for an agency to recognize that non-personally identifiable information can become personally identifiable information whenever additional information is made publicly available—in any medium and from any source—that, combined with other available information, could be used to identify an individual. PII is a subset of sensitive information. Examples of PII include, but are not limited to: name, date of birth, mailing address, telephone number, Social Security number (SSN), email address, zip code, account numbers, certificate/license numbers, vehicle identifiers including license plates, uniform resource locators (URLs), static Internet protocol addresses, biometric identifiers such as fingerprint, voiceprint, iris scan, photographic facial images, or any other unique identifying number or characteristic, and any information where it is reasonably foreseeable that the information will be linked with other information to identify the individual. "Sensitive Information" is defined in HSAR clause 3052.204-71, Contractor Employee Access, as any information, which if lost, misused, disclosed, or, without authorization is accessed, or modified, could adversely affect the national or homeland security interest, the conduct of Federal programs, or the privacy to which individuals are entitled under section 552a of Title 5, United States Code (the Privacy Act), but which has not been specifically authorized under criteria established by an Executive Order or an Act of Congress to be kept secret in the interest of national defense, homeland security or foreign policy. This definition includes the following categories of information: (1) Protected Critical Infrastructure Information (PCII) as set out in the Critical Infrastructure Information Act of 2002 (Title II, Subtitle B, of the Homeland Security Act, Public Law 107-296, 196 Stat. 2135), as amended, the implementing regulations thereto (Title 6, Code of Federal Regulations, Part 29) as amended, the applicable PCII Procedures Manual, as amended, and any supplementary guidance officially communicated by an authorized official of the Department of Homeland Security (including the PCII Program Manager or his/her designee); (2) Sensitive Security Information (SSI), as defined in Title 49, Code of Federal Regulations, Part 1520, as amended, "Policies and Procedures of Safeguarding and Control of SSI," as amended, and any supplementary guidance officially communicated by an authorized official of the Department of Homeland Security (including the Assistant Secretary for the Transportation Security Administration or his/her designee); (3) Information designated as "For Official Use Only," which is unclassified information of a sensitive nature and the unauthorized disclosure of which could adversely impact a person's privacy or welfare, the conduct of Federal programs, or other programs or operations essential to the national or homeland security interest; and (4) Any information that is designated "sensitive" or subject to other controls, safeguards or protections in accordance with subsequently adopted homeland security information handling procedures. "Sensitive Information Incident" is an incident that includes the known, potential, or suspected exposure, loss of control, compromise, unauthorized disclosure, unauthorized acquisition, or unauthorized access or attempted access of any Government system, Contractor system, or sensitive information. "Sensitive Personally Identifiable Information (SPII)" is a subset of PII, which if lost, compromised or disclosed without authorization, could result in substantial harm, embarrassment, inconvenience, or unfairness to an individual. Some forms of PII are sensitive as stand-alone elements. Examples of such PII include: Social Security numbers (SSN), driver's license or state

identification number, Alien Registration Numbers (A-number), financial account number, and biometric identifiers such as fingerprint, voiceprint, or iris scan, Additional examples include any groupings of information that contain an individual's name or other unique identifier plus one or more of the following elements: (1) Truncated SSN (such as last 4 digits) (2) Date of birth (month, day, and year) (3) Citizenship or immigration status (4) Ethnic or religious affiliation (5) Sexual orientation (6) Criminal History (7) Medical Information (8) System authentication information such as mother's maiden name, account passwords or personal identification numbers (PIN) Other PII may be "sensitive" depending on its context, such as a list of employees and their performance ratings or an unlisted home address or phone number. In contrast, a business card or public telephone directory of agency employees contains PII but is not sensitive. (c) Authorities. The Contractor shall follow all current versions of Government policies and guidance accessible at http://www.dhs.gov/dhs-security-and-training-requirements-contractors, or available upon request from the Contracting Officer, including but not limited to: (1) DHS Management Directive 11042.1 Safeguarding Sensitive But Unclassified (for Official Use Only) Information (2) DHS Sensitive Systems Policy Directive 4300A (3) DHS 4300A Sensitive Systems Handbook and Attachments (4) DHS Security Authorization Process Guide (5) DHS Handbook for Safeguarding Sensitive Personally Identifiable Information (6) DHS Instruction Handbook 121-01-007 Department of Homeland Security Personnel Suitability and Security Program (7) DHS Information Security Performance Plan (current fiscal year) (8) DHS Privacy Incident Handling Guidance (9) Federal Information Processing Standard (FIPS) 140-2 Requirements Cryptographic Modules http://csrc.nist.gov/groups/STM/cmvp/standards.html (10) National Institute of Standards and Technology (NIST) Special Publication 800-53 Security and Privacy Controls for Federal Information Systems and Organizations accessible at http://csrc.nist.gov/publications/PubsSPs.html (11) NIST Special Publication 800-88 Guidelines for Media Sanitization accessible at http://csrc.nist.gov/publications/PubsSPs.html (d) Handling of Sensitive Information. Contractor compliance with this clause, as well as the policies and procedures described below, is required. (1) Department of Homeland Security (DHS) policies and procedures on Contractor personnel security requirements are set forth in various Management Directives (MDs), Directives, and Instructions. MD 11042.1, Safeguarding Sensitive But Unclassified (For Official Use Only) Information describes how Contractors must handle sensitive but unclassified information. DHS uses the term "FOR OFFICIAL USE ONLY" to identify sensitive but unclassified information that is not otherwise categorized by statute or regulation. Examples of sensitive information that are categorized by statute or regulation are PCII, SSI, etc. The DHS Sensitive Systems Policy Directive 4300A and the DHS 4300A Sensitive Systems Handbook provide the policies and procedures on security for Information Technology (IT) resources. The DHS Handbook for Safeguarding Sensitive Personally Identifiable Information provides guidelines to help safeguard SPII in both paper and electronic form. DHS Instruction Handbook 121-01-007 Department of Homeland Security Personnel Suitability and Security Program establishes procedures, program responsibilities, minimum standards, and reporting protocols for the DHS Personnel Suitability and Security Program. (2) The Contractor shall not use or redistribute any sensitive information processed, stored, and/or transmitted by the Contractor except as specified in the contract. (3) All Contractor employees with access to sensitive information shall execute DHS Form 11000-6, Department of Homeland Security Non-Disclosure Agreement (NDA), as a condition of access to such information. The Contractor shall maintain signed copies of the NDA for all employees as a record of compliance. The Contractor shall provide copies of the signed NDA to the Contracting Officer's Representative (COR) no later than two (2) days after execution of the form. (4) The Contractor's invoicing, billing, and other recordkeeping systems maintained to support financial or other administrative functions shall not maintain SPII. It is acceptable to maintain in these systems the names, titles and contact information for the COR or other Government personnel associated with the administration of the contract, as needed. (e) Authority to Operate. The Contractor shall not input, store, process, output, and/or transmit sensitive information within a Contractor IT system without an Authority to Operate (ATO) signed by the Headquarters or Component CIO, or designee, in consultation with the Headquarters or Component Privacy Officer. Unless otherwise specified in the ATO letter, the ATO is valid for three (3) years. The Contractor shall adhere to current Government policies, procedures, and guidance for the Security Authorization (SA) process as defined below. (1) Complete the Security Authorization process. The SA process shall proceed according to the DHS Sensitive Systems Policy Directive 4300A (Version 11.0, April 30, 2014), or any successor publication, DHS 4300A Sensitive Systems Handbook (Version 9.1, July 24, 2012), or any successor publication, and the Security Authorization Process Guide including templates. (i) Security Authorization Process Documentation. SA documentation shall be developed using the Government provided Requirements Traceability Matrix and Government security documentation templates. SA documentation consists of the

following: Security Plan, Contingency Plan, Contingency Plan Test Results, Configuration Management Plan, Security Assessment Plan, Security Assessment Report, and Authorization to Operate Letter. Additional documents that may be required include a Plan(s) of Action and Milestones and Interconnection Security Agreement(s). During the development of SA documentation, the Contractor shall submit a signed SA package, validated by an independent third party, to the COR for acceptance by the Headquarters or Component CIO, or designee, at least thirty (30) days prior to the date of operation of the IT system. The Government is the final authority on the compliance of the SA package and may limit the number of resubmissions of a modified SA package. Once the ATO has been accepted by the Headquarters or Component CIO, or designee, the Contracting Officer shall incorporate the ATO into the contract as a compliance document. The Government's acceptance of the ATO does not alleviate the Contractor's responsibility to ensure the IT system controls are implemented and operating effectively. (ii) Independent Assessment. Contractors shall have an independent third party validate the security and privacy controls in place for the system(s). The independent third party shall review and analyze the SA package, and report on technical, operational, and management level deficiencies as outlined in NIST Special Publication 800-53 Security and Privacy Controls for Federal Information Systems and Organizations. The Contractor shall address all deficiencies before submitting the SA package to the Government for acceptance. (iii) Support the completion of the Privacy Threshold Analysis (PTA) as needed. As part of the SA process, the Contractor may be required to support the Government in the completion of the PTA. The requirement to complete a PTA is triggered by the creation, use, modification, upgrade, or disposition of a Contractor IT system that will store, maintain and use PII, and must be renewed at least every three (3) years. Upon review of the PTA, the DHS Privacy Office determines whether a Privacy Impact Assessment (PIA) and/or Privacy Act System of Records Notice (SORN), or modifications thereto, are required. The Contractor shall provide all support necessary to assist the Department in completing the PIA in a timely manner and shall ensure that project management plans and schedules include time for the completion of the PTA, PIA, and SORN (to the extent required) as milestones. Support in this context includes responding timely to requests for information from the Government about the use, access, storage, and maintenance of PII on the Contractor's system, and providing timely review of relevant compliance documents for factual accuracy. Information on the DHS privacy compliance process, including PTAs, PIAs, and SORNs, http://www.dhs.gov/privacy-compliance. (2) Renewal of ATO. Unless otherwise specified in the ATO letter, the ATO shall be renewed every three (3) years. The Contractor is required to update its SA package as part of the ATO renewal process. The Contractor shall update its SA package by one of the following methods: (1) Updating the SA documentation in the DHS automated information assurance tool for acceptance by the Headquarters or Component CIO, or designee, at least 90 days before the ATO expiration date for review and verification of security controls; or (2) Submitting an updated SA package directly to the COR for approval by the Headquarters or Component CIO, or designee, at least 90 days before the ATO expiration date for review and verification of security controls. The 90 day review process is independent of the system production date and therefore it is important that the Contractor build the review into project schedules. The reviews may include onsite visits that involve physical or logical inspection of the Contractor environment to ensure controls are in place. (3) Security Review. The Government may elect to conduct random periodic reviews to ensure that the security requirements contained in this contract are being implemented and enforced. The Contractor shall afford DHS, the Office of the Inspector General, and other Government organizations access to the Contractor's facilities, installations, operations, documentation, databases and personnel used in the performance of this contract. The Contractor shall, through the Contracting Officer and COR, contact the Headquarters or Component CIO, or designee, to coordinate and participate in review and inspection activity by Government organizations external to the DHS. Access shall be provided, to the extent necessary as determined by the Government, for the Government to carry out a program of inspection, investigation, and audit to safeguard against threats and hazards to the integrity, availability and confidentiality of Government data or the function of computer systems used in performance of this contract and to preserve evidence of computer crime. (4) Continuous Monitoring. All Contractor-operated systems that input, store, process, output, and/or transmit sensitive information shall meet or exceed the continuous monitoring requirements identified in the Fiscal Year 2014 DHS Information Security Performance Plan, or successor publication. The plan is updated on an annual basis. The Contractor shall also store monthly continuous monitoring data at its location for a period not less than one year from the date the data is created. The data shall be encrypted in accordance with FIPS 140-2 Security Requirements for Cryptographic Modules and shall not be stored on systems that are shared with other commercial or Government entities. The Government may elect to perform continuous monitoring and IT security scanning of Contractor systems from Government tools and infrastructure. (5) Revocation of ATO. In the event of a sensitive information incident, the Government may suspend or revoke an existing ATO (either in part or in whole). If an ATO is suspended or revoked in accordance with this provision, the Contracting Officer may direct the Contractor to take additional security measures to secure sensitive information. These measures may include restricting access to sensitive information on the Contractor IT system under this contract. Restricting access may include disconnecting the system processing, storing, or transmitting the sensitive information from the Internet or other networks or applying additional security controls. (6) Federal Reporting Requirements. Contractors operating information systems on behalf of the Government or operating systems containing sensitive information shall comply with Federal reporting requirements. Annual and quarterly data collection will be coordinated by the Government. Contractors shall provide the COR with requested information within three (3) business days of receipt of the request. Reporting requirements are determined by the Government and are defined in the Fiscal Year 2014 DHS Information Security Performance Plan, or successor publication. The Contractor shall provide the Government with all information to fully satisfy Federal reporting requirements for Contractor systems. (f) Sensitive Information Incident Reporting Requirements. (1) All known or suspected sensitive information incidents shall be reported to the Headquarters or Component Security Operations Center (SOC) within one hour of discovery in accordance with 4300A Sensitive Systems Handbook Incident Response and Reporting requirements. When notifying the Headquarters or Component SOC, the Contractor shall also notify the Contracting Officer, COR, Headquarters or Component Privacy Officer, and US-CERT using the contact information identified in the contract. If the incident is reported by phone or the Contracting Officer's email address is not immediately available, the Contractor shall contact the Contracting Officer immediately after reporting the incident to the Headquarters or Component SOC. The Contractor shall not include any sensitive information in the subject or body of any e-mail. To transmit sensitive information, the Contractor shall use FIPS 140-2 Security Requirements for Cryptographic Modules compliant encryption methods to protect sensitive information in attachments to email. Passwords shall not be communicated in the same email as the attachment. A sensitive information incident shall not, by itself, be interpreted as evidence that the Contractor has failed to provide adequate information security safeguards for sensitive information, or has otherwise failed to meet the requirements of the contract. (2) If a sensitive information incident involves PII or SPII, in addition to the reporting requirements in 4300A Sensitive Systems Handbook Incident Response and Reporting, Contractors shall also provide as many of the following data elements that are available at the time the incident is reported, with any remaining data elements provided within 24 hours of submission of the initial incident report: (i) Data Universal Numbering System (DUNS); (ii) Contract numbers affected unless all contracts by the company are affected; (iii) Facility CAGE code if the location of the event is different than the prime contractor location; (iv) Point of contact (POC) if different than the POC recorded in the System for Award Management (address, position, telephone, email); (v) Contracting Officer POC (address, telephone, email); (vi) Contract clearance level; (vii) Name of subcontractor and CAGE code if this was an incident on a subcontractor network; (viii) Government programs, platforms or systems involved; (ix) Location(s) of incident; (x) Date and time the incident was discovered; (xi) Server names where sensitive information resided at the time of the incident, both at the Contractor and subcontractor level; (xii) Description of the Government PII and/or SPII contained within the system; (xiii) Number of people potentially affected and the estimate or actual number of records exposed and/or contained within the system; and (xiv) Any additional information relevant to the incident. (g) Sensitive Information Incident Response Requirements. (1) All determinations related to sensitive information incidents, including response activities, notifications to affected individuals and/or Federal agencies, and related services (e.g., credit monitoring) will be made in writing by the Contracting Officer in consultation with the Headquarters or Component CIO and Headquarters or Component Privacy Officer. (2) The Contractor shall provide full access and cooperation for all activities determined by the Government to be required to ensure an effective incident response, including providing all requested images, log files, and event information to facilitate rapid resolution of sensitive information incidents. (3) Incident response activities determined to be required by the Government may include, but are not limited to, the following: (i) Inspections, (ii) Investigations, (iii) Forensic reviews, and (iv) Data analyses and processing. (4) The Government, at its sole discretion, may obtain the assistance from other Federal agencies and/or third-party firms to aid in incident response activities. (h) Additional PII and/or SPII Notification Requirements. (1) The Contractor shall have in place procedures and the capability to notify any individual whose PII resided in the Contractor IT system at the time of the sensitive information incident not later than 5 business days after being directed to notify individuals, unless otherwise approved by the Contracting Officer. The method and content of any notification by the Contractor shall be coordinated with, and subject to prior written approval by the Contracting Officer, in consultation with the Headquarters or Component Privacy Officer, utilizing the DHS Privacy Incident Handling Guidance. The Contractor shall

not proceed with notification unless the Contracting Officer, in consultation with the Headquarters or Component Privacy Officer, has determined in writing that notification is appropriate. (2) Subject to Government analysis of the incident and the terms of its instructions to the Contractor regarding any resulting notification, the notification method may consist of letters to affected individuals sent by first class mail, electronic means, or general public notice, as approved by the Government. Notification may require the Contractor's use of address verification and/or address location services. At a minimum, the notification shall include: (i) A brief description of the incident; (ii) A description of the types of PII and SPII involved; (iii) A statement as to whether the PII or SPII was encrypted or protected by other means; (iv) Steps individuals may take to protect themselves; (v) What the Contractor and/or the Government are doing to investigate the incident, to mitigate the incident, and to protect against any future incidents; and (vi) Information identifying who individuals may contact for additional information. (i) Credit Monitoring Requirements. In the event that a sensitive information incident involves PII or SPII, the Contractor may be required to, as directed by the Contracting Officer: (1) Provide notification to affected individuals as described above; and/or (2) Provide credit monitoring services to individuals whose data was under the control of the Contractor or resided in the Contractor IT system at the time of the sensitive information incident for a period beginning the date of the incident and extending not less than 18 months from the date the individual is notified. Credit monitoring services shall be provided from a company with which the Contractor has no affiliation. At a minimum, credit monitoring services shall include: (i) Triple credit bureau monitoring; (ii) Daily customer service; (iii) Alerts provided to the individual for changes and fraud; and (iv) Assistance to the individual with enrollment in the services and the use of fraud alerts; and/or (3) Establish a dedicated call center. Call center services shall include: (i) A dedicated telephone number to contact customer service within a fixed period; (ii) Information necessary for registrants/enrollees to access credit reports and credit scores; (iii) Weekly reports on call center volume, issue escalation (i.e., those calls that cannot be handled by call center staff and must be resolved by call center management or DHS, as appropriate), and other key metrics; (iv) Escalation of calls that cannot be handled by call center staff to call center management or DHS, as appropriate; (v) Customized FAQs, approved in writing by the Contracting Officer in coordination with the Headquarters or Component Chief Privacy Officer; and (vi) Information for registrants to contact customer service representatives and fraud resolution representatives for credit monitoring assistance. (j) Certification of Sanitization of Government and Government-Activity-Related Files and Information. As part of contract closeout, the Contractor shall submit the certification to the COR and the Contracting Officer following the template provided in NIST Special Publication 800-88 Guidelines for Media Sanitization.

(2) Information Technology Security and Privacy Training (MAR 2015). (a) Applicability. This clause applies to the Contractor, its subcontractors, and Contractor employees (hereafter referred to collectively as "Contractor"). The Contractor shall insert the substance of this clause in all subcontracts. (b) Security Training Requirements. (1) All users of Federal information systems are required by Title 5, Code of Federal Regulations, Part 930.301, Subpart C, as amended, to be exposed to security awareness materials annually or whenever system security changes occur, or when the user's responsibilities change. The Department of Homeland Security (DHS) requires that Contractor employees take an annual Information Technology Security Awareness Training course before accessing sensitive information under the contract. Unless otherwise specified, the training shall be completed within thirty (30) days of contract award and be completed on an annual basis thereafter not later than October 31st of each year. Any new Contractor employees assigned to the contract shall complete the training before accessing sensitive information under the contract. The training is accessible at http://www.dhs.gov/dhs-security-and-training-requirementscontractors. The Contractor shall maintain copies of training certificates for all Contractor and subcontractor employees as a record of compliance. Unless otherwise specified, initial training certificates for each Contractor and subcontractor employee shall be provided to the Contracting Officer's Representative (COR) not later than thirty (30) days after contract award. Subsequent training certificates to satisfy the annual training requirement shall be submitted to the COR via e-mail notification not later than October 31st of each year. The e-mail notification shall state the required training has been completed for all Contractor and subcontractor employees. (2) The DHS Rules of Behavior apply to every DHS employee, Contractor and subcontractor that will have access to DHS systems and sensitive information. The DHS Rules of Behavior shall be signed before accessing DHS systems and sensitive information. The DHS Rules of Behavior is a document that informs users of their responsibilities when accessing DHS systems and holds users accountable for actions taken while accessing DHS systems and using DHS Information Technology resources capable of inputting, storing, processing, outputting, and/or transmitting sensitive information. The DHS Rules of Behavior is accessible at http://www.dhs.gov/dhs-security-and-training-requirementscontractors. Unless otherwise specified, the DHS Rules of Behavior shall be signed within thirty (30) days of contract award. Any new Contractor employees assigned to the contract shall also sign the DHS Rules of Behavior before accessing DHS systems and sensitive information. The Contractor shall maintain signed copies of the DHS Rules of Behavior for all Contractor and subcontractor employees as a record of compliance. Unless otherwise specified, the Contractor shall e-mail copies of the signed DHS Rules of Behavior to the COR not later than thirty (30) days after contract award for each employee. The DHS Rules of Behavior will be reviewed annually and the COR will provide notification when a review is required. (c) Privacy Training Requirements. All Contractor and subcontractor employees that will have access to Personally Identifiable Information (PII) and/or Sensitive PII (SPII) are required to take Privacy at DHS: Protecting Personal Information before accessing PII and/or SPII. The training is accessible at http://www.dhs.gov/dhs-security-and-training-requirements-contractors. Training shall be completed within thirty (30) days of contract award and be completed on an annual basis thereafter not later than October 31st of each year. Any new Contractor employees assigned to the contract shall also complete the training before accessing PII and/or SPII. The Contractor shall maintain copies of training certificates for all Contractor and subcontractor employees as a record of compliance. Initial training certificates for each Contractor and subcontractor employee shall be provided to the COR not later than thirty (30) days after contract award. Subsequent training certificates to satisfy the annual training requirement shall be submitted to the COR via e-mail notification not later than October 31st of each year. The email notification shall state the required training has been completed for all Contractor and subcontractor employees.

**Rights to Inventions Made under a Contract.** If the Federal award meets the definition of "funding agreement" under 37 CFR § 401.2 (a) and the recipient or subrecipient wishes to enter into a contract with a small business firm or nonprofit organization regarding the substitution of parties, assignment or performance of experimental, developmental, or research work under that "funding agreement," the recipient or subrecipient must comply with the requirements of 37 CFR Part 401, "Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements," and any implementing regulations issued by the awarding agency.

#### H. Clean Air Act

- (1) The contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq.
- (2) The contractor agrees to report each violation to the (name of applicant entering into the contract) and understands and agrees that the (name of the applicant entering into the contract) will, in turn, report each violation as required to assure notification to the Federal Emergency Management Agency, and the appropriate Environmental Protection Agency Regional Office.
- (3) The contractor agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by FEMA.

#### I. Federal Water Pollution Control Act

- (1) The contractor agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq.
- (2) The contractor agrees to report each violation to TPCG and understands and agrees that TPCG will, in turn, report each violation as required to assure notification to the Federal Emergency Management Agency, and the appropriate Environmental Protection Agency Regional Office.
- (3) The contractor agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by FEMA.

#### J. Suspension and Debarment

- (1) This contract is a covered transaction for purposes of 2 C.F.R. pt. 180 and 2 C.F.R. pt. 3000. As such, the contractor is required to verify that none of the contractor's principals (defined at 2 C.F.R. § 180.995) or its affiliates (defined at 2 C.F.R. § 180.905) are excluded (defined at 2 C.F.R. § 180.940) or disqualified (defined at 2 C.F.R. § 180.935), attached at Attachment 13 and incorporated herein.
- (2) The contractor must comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, and must include a requirement to comply with these regulations in any lower tier covered transaction it enters into.
- (3) This certification is a material representation of fact relied upon by TPCG. If it is later determined that the contractor did not comply with 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C, in addition to remedies available to TPCG, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.
- 4. The bidder or proposer agrees to comply with the requirements of 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The bidder or proposer further agrees to include a provision requiring such compliance in its lower-tier-covered transactions.

- K. Byrd Anti-Lobbying Amendment, 31 U.S.C. § 1352 (as amended). Contractors who apply or bid for an award of \$100,000 or more shall file the required certification. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, officer or employee of Congress, or an employee of a Member of Congress in connection with obtaining any Federal contract, grant, or any other award covered by 31 U.S.C. § 1352. Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier-to-tier up to the recipient who in turn will forward the certification(s) to the awarding agency. A certificate is attached to this contract at Attachment 14 and incorporated herein.
- L. <u>Domestic Preferences for Procurements.</u> As appropriate and to the extent consistent with law, Contractor shall, to the greatest extent practicable, purchase, acquire, or use goods, products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products). "Produced in the United States" means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States. "Manufactured products" means items and construction materials composed in whole or in part of non-ferrous metals such as aluminum; plastics and polymer-based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.

#### M. Procurement of Recovered Material.

- (1) In the performance of this contract, the Contractor shall make maximum use of products containing recovered materials that are EPA-designated items unless the product cannot be acquired—a. Competitively within a timeframe providing for compliance with the contract performance schedule; b. Meeting contract performance requirements; or c. At a reasonable price.
- (2) Information about this requirement, along with the list of EPA-designated items, is available at EPA's Comprehensive Procurement Guidelines web site, https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program.
- (3) The Contractor also agrees to comply with all other applicable requirements of Section 6002 of the Solid Waste Disposal Act.

## N. <u>Prohibition on Contracting for Certain Telecommunications and Video Surveillance services or Equipment (AUG 2020).</u>

(a) Definitions. As used in this clause Backhaul means intermediate links between the core network, or backbone network, and the small subnetworks at the edge of the network (e.g., connecting cell phones/towers to the core telephone network). Backhaul can be wireless (e.g., microwave) or wired (e.g., fiber optic, coaxial cable, Ethernet). Covered foreign country means The People's Republic of China. Covered telecommunications equipment or services means (1) Telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities); (2) For the purpose of public safety, security of Government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities); (3) Telecommunications or video surveillance services provided by such entities or using such equipment; or (4) Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country. Critical technology means— (1) Defense articles or defense services included on the United States Munitions List set forth in the International Traffic in Arms Regulations under subchapter M of chapter I of title 22, Code of Federal Regulations; (2) Items included on the Commerce Control List set forth in Supplement No. 1 to part 774 of the Export Administration Regulations under subchapter C of chapter VII of title 15, Code of Federal Regulations, and controlled—(i) Pursuant to multilateral regimes, including for reasons relating to national security, chemical and biological weapons proliferation, nuclear nonproliferation, or missile technology; or (ii) For reasons relating to regional stability or surreptitious listening; (3) Specially designed and prepared nuclear equipment, parts and components, materials, software, and technology covered by part 810 of title 10, Code of Federal Regulations (relating to assistance to foreign atomic energy activities); (4) Nuclear facilities, equipment, and material covered by part 110 of title 10, Code of Federal Regulations (relating to export and import of nuclear equipment and material); (5) Select agents and toxins covered by part 331 of title 7, Code of Federal Regulations, part 121 of title 9 of such Code, or part 73 of title 42 of such Code; or (6) Emerging and foundational technologies controlled pursuant to section 1758 of the Export Control Reform Act of 2018 (50 U.S.C. 4817). Interconnection arrangements means arrangements governing the physical connection of two or more networks to allow the use of another's network to hand off traffic where it is ultimately delivered (e.g., connection of a customer of telephone provider A to a customer of telephone company B) or sharing data and other information resources. Reasonable inquiry means an inquiry designed to uncover any information in the entity's possession about the identity of the producer or provider of covered telecommunications equipment or services used by the entity that excludes the need to include an internal or thirdparty audit. Roaming means cellular communications services (e.g., voice, video, data) received from a visited network when unable to connect to the facilities of the home network either because signal coverage is too weak or because traffic is too high. Substantial or essential component means any component necessary for the proper function or performance of a piece of equipment, system, or service. (b) Prohibition. (1) Section 889(a)(1)(A) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Pub. L. 115-232) prohibits the head of an executive agency on or after August 13, 2019, from procuring or obtaining, or extending or renewing a contract to procure or obtain, any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. The Contractor is prohibited from providing to the Government any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system, unless an exception at paragraph (c) of this clause applies or the covered telecommunication equipment or services are covered by a waiver described in FAR 4.2104. (2) Section 889(a)(1)(B) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Pub. L. 115-232) prohibits the head of an executive agency on or after August 13, 2020, from entering into a contract, or extending or renewing a contract, with an entity that uses any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system, unless an exception at paragraph (c) of this clause applies or the covered telecommunication equipment or services are covered by a waiver described in FAR 4.2104. This prohibition applies to the use of covered telecommunications equipment or services, regardless of whether that use is in performance of work under a Federal contract. (c) Exceptions. This clause does not prohibit contractors from providing—(1) A service that connects to the facilities of a third-party, such as backhaul, roaming, or interconnection arrangements; or (2) Telecommunications equipment that cannot route or redirect user data traffic or permit visibility into any user data or packets that such equipment transmits or otherwise handles. (d) Reporting requirement. (1) In the event the Contractor identifies covered telecommunications equipment or services used as a substantial or essential component of any system, or as critical technology as part of any system, during contract performance, or the Contractor is notified of such by a subcontractor at any tier or by any other source, the Contractor shall report the information in paragraph (d)(2) of this clause to the Contracting Officer, unless elsewhere in this contract are established procedures for reporting the information; in the case of the Department of Defense, the Contractor shall report to the website at https://dibnet.dod.mil. For indefinite delivery contracts, the Contractor shall report to the Contracting Officer for the indefinite delivery contract and the Contracting Officer(s) for any affected order or, in the case of the Department of Defense, identify both the indefinite delivery contract and any affected orders in the report provided at https://dibnet.dod.mil. (2) The Contractor shall report the following information pursuant to paragraph (d)(1) of this clause: (i) Within one business day from the date of such identification or notification: The contract number; the order number(s), if applicable; supplier name; supplier unique entity identifier (if known); supplier Commercial and Government Entity (CAGE) code (if known); brand; model number (original equipment manufacturer number, manufacturer part number, or wholesaler number); item description; and any readily available information about mitigation actions undertaken or recommended. (ii) Within 10 business days of submitting the information in paragraph (d)(2)(i) of this clause: Any further available information about mitigation actions undertaken or recommended. In addition, the Contractor shall describe the efforts it undertook to prevent use or submission of covered telecommunications equipment or services, and any additional efforts that will be incorporated to prevent future use or submission of covered telecommunications equipment or services. (e) Subcontracts. The Contractor shall insert the substance of this clause, including this paragraph (e) and excluding paragraph (b)(2), in all subcontracts and other contractual instruments, including subcontracts for the acquisition of commercial items.

O. Access to Records. The following access to records requirements apply to this contract:

(1) The Contractor agrees to provide the state of Louisiana, TPCG, the FEMA Administrator, the Comptroller General of the United States, or any of their authorized representatives access to any books, documents, papers, and records of the Contractor which are directly pertinent to this contract for the purposes of making audits, examinations, excerpts, and transcriptions.

- (2) The Contractor agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.
- (3) The Contractor agrees to provide the FEMA Administrator or his authorized representatives access to construction or other work sites pertaining to the work being completed under the contract.
- (4) In compliance with the Disaster Recovery Act of 2018, TPCG and the Contractor acknowledge and agree that no language in this contract is intended to prohibit audits or internal reviews by the FEMA Administrator or the Comptroller General of the United States.
- P. Contracting with small and minority businesses, women's business enterprises, and labor surplus area firms. Contractor, if subcontracts are to be let, is required, under 2 CFR § 200.321(b)(6), to take all necessary affirmative steps to assure that minority businesses, women's business enterprises, and labor surplus area firms are used when possible. Affirmative steps must include: (1) Placing qualified small and minority businesses and women's business enterprises on solicitation lists; (2) Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources; (3) Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses, and women's business enterprises; (4) Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women's business enterprises; (5) Using the services and assistance, as appropriate, of such organizations as the Small Business Administration and the Minority Business Development Agency of the Department of Commerce.
- **Q.** <u>DHS Seal, Logo, and Flags.</u> The contractor shall not use the DHS seal(s), logos, crests, or reproductions of flags or likenesses of DHS agency officials without specific FEMA pre-approval.
- R. <u>Compliance with Federal Law, Regulations, and Executive Orders</u>. This is an acknowledgement that FEMA financial assistance will be used to fund all or a portion of the contract. The contractor will comply with all applicable Federal law, regulations, executive orders, FEMA policies, procedures, and directives.
- **S.** <u>No Obligation by Federal Government.</u> The Federal Government is not a party to this contract and is not subject to any obligations or liabilities to the non-Federal entity, contractor, or any other party pertaining to any matter resulting from the contract.
- T. Program Fraud and False or Fraudulent Statements or Related Acts. The Contractor acknowledges that 31 U.S.C. Chap. 38 (Administrative Remedies for False Claims and Statements) applies to the Contractor's actions pertaining to this contract.
- U. <u>Energy Conservation.</u> The contractor agrees to comply with mandatory standards and policies relating to energy efficiency, which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act.
- V. <u>Affirmative Socioeconomic Steps</u>. If Contractor employs subcontractors for the work under this agreement, Contractor is required to take all necessary steps identified in 2 C.F.R. § 200.321(b)(1)-(5) to ensure that small and minority businesses, women's business enterprises, and labor surplus area firms are used when possible.

# IN WITNESS WHEREOF

The Parties have caused this document to be executed by their authorized representatives as of the date set forth below.

SUPPLIER	
By:	
(Signature)	
(Printed Name)	
(Title)	
(Date)	
PURCHASER	
TPCG,	By:
(Signature)	
(Title)	(Printed Name)
(Date)	

# **<u>Attachment 1</u>**: Special Provisions

The following Special provisions provide supplemental contract requirements and instructions.

- A. Owner's Construction Contract: Owner also intends to solicit bids for a procurement/construction contractor concurrently with the bid period under this Material Bid Proposal. Bidders should expect to be contacted by potential contractors for the project and are asked to cooperate with any information requests from those potential contractors.
- B. Equipment offloading at the Houma Power Plant project site: Owner's Construction Contractor shall be responsible for offloading all equipment provided under this Material Bid Proposal.
- C. Owner intent to assign equipment to others: Owner intends to assign to Owner's Construction Contractor, all equipment provided under this Material Bid Proposal. Certain rights and obligations will be retained by Owner.

# **Attachment 2: Technical Specification Package**

Attachment 2, The Technical Specification Package, contains Specification Section 481126: Reciprocating Engine-Generator and Equipment. Additional documentation comprising this Specification Package includes the following:

- **1)** Section 011000 Summary
- 2) Section 013300 Submittal Procedure
- 3) Section 014000 Quality Requirements
- 4) Section 016000 Product Requirements
- 5) Section 017300 Execution Requirements
- 6) Section 017700 Closeout Requirements

# Attachments to Specification Section 481126 include the following:

- **A.** Attachment A Submittals Supplier Equipment List and Responsibility
- **B.** Attachment B Technical Data Sheets for Reciprocating Engine and Generator Set
- **c.** Attachment C Fuel Gas Analysis
- **D.** Attachment D Submittals
- **E.** Attachment E Control System Architectural Diagram
- **F.** Attachment F General Arrangement (Preliminary)

**Attachment 3: Reserved** 

**Attachment 4: Reserved** 

# **Attachment 5: Scheduled Major Component Delivery Date(s)**

# NOTE: Notice to Proceed (NTP) is the date Payment 1 (Down Payment) is received by Supplier.

# i. Scheduled Major Component "Ready to Ship" dates

The following items are considered Major Components and as such are subject to Liquidated Damages per article 11.C. of the Contract:

Description	Scheduled Major Component Ready to Ship Date	Location
RICE generator with base, engine, & auxiliary equipment.	Last Piece Received:months after NTP	Factory

# **Attachment 6: Performance Test Specification**

Refer to Contract Article 13 in addition to the following requirements:

## 1.1 PERFORMANCE GUARANTEES

#### A. General

- 1. The Reciprocating Engine(s) furnished under this Contract shall be tested in accordance with ASME PTC 17 "Performance Test Codes on Reciprocating Internal Combustion Engines.
- 2. In addition to the Power Output and Heat Rate (as provided in Article 13.A and B and more specifically defined in Attachment 7, and the Noise Level Guarantee (as provided in Article 13.A and B), Supplier agrees to provide Performance Guarantees for electrical output capability, operational capability, load range, and operating requirements as further identified in this Attachment 6. Performance Guarantees shall apply to each engine furnished under this Contract.
- 3. Performance Guarantees shall be met under operating conditions as provided in Attachment 7. All guarantees shall be at continuous (base) load of each engine.
- 4. Performance Tests (as hereinafter defined) will be conducted by the Supplier to verify compliance with the Performance Guarantees. The Performance Tests for each engine will be performed simultaneously to the extent reasonably possible and in accordance with Section 1.1.A.7. The Owner will furnish operators, startup power, and fuel for the Performance Tests. For the avoidance of doubt, the Owner shall pay all fuel costs from commissioning to completion of the Performance Tests. The Supplier shall refer to Article 2.17 for additional requirements for the Performance Tests, including the supply of personnel and specific test instrumentation. The Owners Representative will have the right to review and approve all test data, test calculations, test corrections, and test results developed by the Supplier.
- 5. For purposes of this Contract, Performance Tests shall include final commissioning tests, engine performance tests and operational capability tests as set forth in Sections 1.1.C, D, E, F, G. These Performance Tests will be the sole determination of whether the Performance Guarantees have been met. Such Performance Tests shall be binding on the Supplier. Owners

- Representative will review and approve test to determine compliance with the Performance Guarantees.
- 6. A Performance Test shall be performed on each engine generator set when fired with natural gas to demonstrate compliance with the Performance Guarantees specified herein. Except for delays attributable to the Owners Representative or others under its control, Force Majeure Events, and as may be provided for under the Contract, the initial Performance Test of each Engine shall be ready to commence no later than 30 calendar days after initial synchronization. The Supplier shall use its reasonable efforts to accommodate the commissioning schedule for the Project.
- 7. The date for conducting the Performance Test shall be mutually agreed upon by the Owners Representative and Supplier so long as such date complies with the following terms contained in this Section, and provided there are no delays attributable to Force Majeure Events or acts or omissions of the Owners Representative or others under its control.

# 8. New and Clean

a) For the purpose of evaluating Performance Guarantees, each Engine shall be deemed "New and Clean" for any and all Performance Tests. An Engine is deemed New and Clean provided that the Performance Tests are conducted:

# 1. Before 200 hours of Operation

- a) Operation shall not include any hours of operation accumulated from (i) the Supplier's testing at facilities and (ii) the Supplier's requested/required commissioning tests/ activities or emissions testing/tuning, or from previously failed Performance Tests.
- b) The Supplier will be allowed to apply the Initial Cure Period degradation correction curves for the Performance Test after 200 hours of Operation and to inspect the generator set prior to the start of the Performance Tests to determine that the New and Clean condition still exists.
- c) The Supplier will be allowed to apply the Extended Cure Period degradation

correction curves for the Performance Tests conducted following the Initial Cure Period. If the generator sets are not in New and Clean condition, but have less than 200 hours of Operation or if testing occurs following the Initial Cure Period, the Supplier shall perform all work required to bring the generator set into a condition to its satisfaction. The cost of this work, including labor and materials, shall be paid by the Supplier.

- 9. All Performance Guarantees made by the Supplier herein are made under the understanding that the Performance Tests will be conducted with the testing tolerances and uncertainties (hereinafter referred to as "Tolerance Band") delineated in this Specification unless otherwise agreed to by the Owners Representative. No tolerances will be applied to the results of the Performance Test measurement or instrument uncertainty. The only corrections that will be allowed are those required to correct for Test Conditions that differ from the Guarantee Conditions defined herein, and any specific instrument calibration curves, as agreed to by the Owners Representative.
- 10. All guarantees listed below shall be met simultaneously and may be tested concurrently at the discretion of the Owners Representative or the independent testing contractor per A.6 (except the Guaranteed Operational Capability, load range and operating requirements, and auxiliary equipment guarantees):
  - a) Power Output Power Output at generator terminals.
  - b) Electrical Output Capability The continuous (base) load electrical capability of each generator set shall be guaranteed to be not less than the Power Output Guarantee (as hereinafter defined) for operation on the specified fuel. The guarantee shall allow for all losses and unit auxiliary loads for Owner furnished equipment at specified conditions while operating on the specified fuel.
  - c) Heat Rate The continuous (base) load heat rate (LHV basis) shall be guaranteed for each generator set to be not more than the Heat Rate Guarantee (as hereinafter defined) for operation on the fuel specified. The Heat Rate is the heat rate in Btu/kWhr-LHV HI/GNPO as specified in Attachment 7.

- d) Operational Capability Certain commissioning tests will be performed to demonstrate each generator sets operational capabilities and to verify that the Operational Capability has been met or exceeded. Operational Capability shall be provided for starting reliability, startup time, load change rate, generator set trip due to over-speed, and minimum stable load operation. The Owner will test the operational capability of the generator sets furnished under this Contract.
- e) Load Range and Operating Requirements per 1.1F.
- f) Noise Level Supplier agrees to maintain the noise level of the equipment during operations to 100 dBa at 3 feet from the equipment as provided in Attachment 7.
- 11. If the results of the first Performance Test indicate that the astested power output, electrical output capability, heat rate, the operational capability guarantees, noise level, load range and operating requirements and the starting time are met or are better than the values set forth in this Section, the Performance Test shall be deemed to have been satisfactorily completed and the Performance Guarantees identified herein shall be deemed satisfied. If the first Performance Test does not satisfy the Performance Guarantees, the Supplier shall take specific remedial action as required. Performance Cures, if required, shall be conducted in accordance with the requirements specified in the Contract.

#### B. Basis of Guarantees:

# 1. General

- a) Tests will be conducted at the specified guaranteed basis conditions in accordance with 2.a. below. Certified correction curves provided by the Supplier will be used to adjust generator set performance, with no tolerance allowances, from Test Conditions to the Guarantee Conditions. The correction curves shall be legible and shall be submitted to the Engineer as a certified document with Supplier's Proposal.
- b) The Supplier shall verify the values of these parameters prior to initiating any test under this Contract. The conditions existing at the time of the test will be the Test Conditions. Test Conditions shall be measured and

documented for each generator set and each tested separately. The results of all Performance Tests will be adjusted by the certified performance correction curves to the guaranteed Conditions.

# 2. Standard Operation

a) The following table defines the Basis of all Performance Guarantees. The Supplier's Performance Guarantees are based upon these values:

Parameter	Guarantee Condition Value
Operating Mode	Base Load
Ambient Dry Bulb Temperature	97°F
Ambient Wet Bulb	78°F
Ambient Barometric Pressure	14.5 psia
Fuel	Natural Gas, as specified in Attachment 7
Fuel Temperature	70°F
Fuel Supply Pressure at Supplier's Connection Point	225 psig
Engine Condition	New and Clean defined above
Grid Frequency	60 Hz
Generator Power Factor	0.80

# C. Performance Test for Performance Guarantees:

- 1. The following sections define the Performance Guarantees that apply to the generator sets to be furnished under this Contract. Each Performance Guarantee shall be met exclusively.
  - a) Heat Rate Performance Test / Guarantee

- 1. The Supplier shall provide a guaranteed heat rate per engine generator set.
- 2. The Maximum Acceptable Heat Rate is 105 percent of the Heat Rate Guarantee.
- 3. The Supplier must meet the Maximum Acceptable Heat Rate for each engine generator set to fulfill the minimum requirements of this Contract as provided in Item 2 above. If the as-tested heat rate, after correction to the Guarantee Conditions, on any unit is greater than the Maximum Acceptable Heat Rate, the Supplier shall be required to correct the heat rate deficiency of the unit. The Supplier may cure the engine generator set heat rate to below the Maximum Acceptable Heat Rate to avoid paying Performance Liquidated Damages or to reduce the amount of Performance Liquidated Damages on the Engine. Before the Supplier can buy-down the shortfall in heat rate by paying Performance Liquidated Damages, the as-tested heat rate, after correction to the Guarantee Conditions, of the unit must be less than or equal to the Maximum Acceptable Heat Rate. Performance Liquidated Damages will be reimbursed to the Supplier if the Supplier is able to cure the Engine's performance deficiency before the expiration of the Extended Cure Period.
- b) Power Output Performance Test / Guarantee
  - 1. The Supplier shall provide a guaranteed electrical output (the "Power Output Guarantee"). The engine generator set electrical output shall be measured at the generator terminals, Corrections for ambient conditions (e.g., temperature, pressure, and humidity), the generator power factor, and fuel supply conditions to performance guarantee conditions will be made. Engine performance shall be based on the Engine being in New and Clean condition as defined above.
  - 2. The Minimum Acceptable Power Output is 9,300 kW
  - 3. The Supplier must meet the Minimum Acceptable Power I Output for each Engine to fulfill the minimum requirements of this Contract. If the as-tested electrical output, after correction to the Guarantee Conditions, on any engine generator set is less than the Minimum Acceptable Electrical Output, the Supplier shall be required to correct the output deficiency of the Engine. The Supplier may cure the engine generator set electrical output to a value above

the Minimum Acceptable Electrical Output to avoid paying Performance Liquidated Damages or to reduce the amount of Performance Liquidated Damages on the unit. Before the Supplier can buy-down the shortfall in output by paying Performance Liquidated Damages, the as-tested electrical output, after correction to the Guarantee Conditions, of the Engine must be equal to or greater than the Minimum Acceptable Electrical Output. Performance Liquidated Damages will be reimbursed to the Supplier if the Supplier is able to cure the Engine, according to the requirements hereof and before the expiration of the Extended Cure Period.

- 2. Offsetting of Performance Liquidated Damages between units will not be allowed.
- D. Operational Capability Performance Tests / Guarantee:
  - 1. Commissioning tests will be performed to demonstrate each generator sets operational capabilities and to verify that the Guaranteed Operational Capability has been met or exceeded. Guaranteed operational Capability shall be provided for starting reliability, startup time, load change rate, Engine trip due to over- speed, and minimum stable load operation. The Owner may elect to test the operational capability of one unit or all units furnished under this Contract.
  - 2. Final commissioning tests will be conducted by the Owner, or by an independent testing contractor and in accordance with test procedures and forms to be developed by the Supplier and mutually agreed upon. The Owner will furnish the operator, startup power, and fuel. The Supplier shall provide assistance to the Owner or the independent testing contractor during the tests. The purpose of these tests will be to verify that each generator set can achieve Guaranteed Operational Capabilities. Such tests shall be binding on the parties to this Contract to determine compliance with the guarantees. All measurements shall be with supplied calibrated instruments. Data shall be gathered and recorded electronically, except that the Owner reserves the right to manually measure and record data as deeded appropriate.
  - 3. The final commissioning tests for each Engine are anticipated to include, but not be limited to, the following:
    - a) Starting Reliability Ten consecutive successful starts from various initial conditions (cold versus hot starts), from ignition to rated speed on fuel gas firing.
    - b) Engine Trip Due to Over-speed Demonstration of the over-speed protection device for the engine. The over-speed protection device

- shall successfully trip the engine, upon indication of an over-speed condition or upon initiation of the over-speed trip test.
- c) Minimum Stable Load Operation Demonstration that each Engine is stable and there is no variance in Engine load at 50 percent of the continuous (base) load electrical capability load.
- d) Startup Time Demonstration that each Engine is able to startup from start initiation to continuous (base) load output within 5 minutes
- 4. The Supplier shall, at the Supplier's expense, make corrections and modifications as necessary to achieve the guaranteed capabilities, as specified above. Any required corrections or modifications and subsequent re-testing shall precede the Performance Tests.
- 5. At the completion of the final commissioning tests, the Supplier shall provide its complete commissioning records to the Owner. The commissioning records provided by the Contractor or independent testing contractor shall include all commissioning procedures and completed commissioning test records with test data, calculations (where applicable), appropriate sign-offs and dates. The commissioning records shall be organized by system or component and put in heavy-duty binders with suitable covers. The commissioning records shall satisfy all internal quality assurance/control requirements of the Supplier. Final sign-off by the Supplier's Representative shall include the Supplier's certification that the Engine is ready to begin Performance Tests.

# E. Load Range and Operating Requirements Performance Test/Guarantee:

- 1. In addition to meeting the Performance Guarantees and Guaranteed Operational Capability, the Equipment furnished shall be designed to meet the following specified requirements:
  - a) Operation at minimum load to continuous (base) load for an indefinite time period at any ambient condition within the range specified.
  - b) Satisfactory operation without damage or undue wear to the generator set in daily load swings from minimum load to continuous (base) load capability.
  - c) Capable of normal cycle starts with minimal performance degradation.

# F. Noise Level Performance Test/Guarantee:

1. The Supplier guarantees that the Noise Levels specified in Attachment 7 will not be exceeded based on certified decibel measuring devices.

## G. Performance Cures:

- 1. The Supplier shall, at his expense, make repairs and modifications as necessary to bring each guaranteed parameter listed in this Attachment 6 into compliance with the Performance Guarantees even if the heat rate and electrical output meet the guaranteed value prior to such corrections. Subsequent to those modifications, the affected Performance Tests shall be repeated at the Supplier's expense, except for Owner furnished energy, fuel, water, and other utilities as were furnished by the Owner in order to perform the initial testing and normal operating personnel.
- 2. Generator set alterations and modifications shall be completed in a manner that is reasonable convenient to the Owner. The schedule for alterations and modifications shall be subject to review and approval by the Owner, and such corrective measures shall be completed as soon as practical following the initial Performance Test.
- 3. The Owner will make the generator set available at the loads and conditions necessary for proper testing. The Supplier, at its expense, shall provide material, including gasket material for the test instrumentation, scaffolding (as required) and labor for installation of the test instrumentation, and shall read and record the test data and calculate the test results or shall pay the cost of all work associated with the re-test, except for energy, fuel, water and other utilities as were furnished by the Owner in order to perform the initial testing and normal operating personnel.
- 4. Cures will be identified as either a Full Cure or a Partial Cure. A Full Cure will exist when the Supplier corrects the deficient parameter to the performance guarantee value such that no Performance Liquidated Damages would apply. A Partial Cure will exist when the Supplier lessens the deficiency of any guaranteed parameter such that the amount of Performance Liquidated Damages assessed against the deficiency would be reduced. Partial Cures will not be allowed for levels below minimum acceptable power or above maximum acceptable heat rate.

# 5. Initial Cure Period

a) The Supplier shall have a maximum of 30 days following commencement of the initial performance test of an Engine as an Initial Cure Period ("Initial Cure Period"). Such days shall include the duration of Performance Testing and are not necessarily consecutive. The Initial Cure Period shall be those days following the commencement of the initial performance test of the Engine during which the Supplier has not been denied by the Owner access to the unit to perform corrective work and testing on the equipment to permit it to achieve the requirements for Contractor Provisional

Acceptance. If the Supplier Provisional Acceptance Date is not achieved at such time due to the fault of the Supplier of the equipment, the Supplier shall pay Late Completion Liquidated Damages and shall continue to cure the Engines in accordance with the provisions of this Contract. Nothing in the Section shall relieve the Supplier from its other obligations under this Contract, including its obligation to pay liquidated damages for late delivery or failure to achieve the Performance Guarantees.

# 6. Extended Cure Period

- a) The Supplier shall have 365 days from the expiration of the Initial Cure Period to achieve the Performance Guarantees for the Engines as an extended cure period ("Extended Cure Period"). The Engineer shall provide the Supplier with reasonable access to the generator set during this Extended Cure Period. At the end of the Extended Cure Period, a determination of the engine performance will be made and one of the following conditions will apply.
  - 1. The generator set has achieved valid Performance Test results and has met all Performance Guarantees. The Supplier shall be entitled to a partial/full refund of the Performance Liquidated Damages earlier paid to the Owner for the Engine in accordance with the provisions of this Contract.
  - 2. The Generator set has failed to achieve valid Performance Test results showing that the engine has met Maximum Acceptable Heat Rate and Minimum Acceptable Electrical Output. The Supplier shall continue to be subject to liquidated damages for late completion in accordance with the provisions of this Contract.
  - 3. The Generator set has achieved valid Performance Test results showing that the Engine has met Maximum Acceptable Heat Rate and Minimum Acceptable Electrical Output, but the Generator set has not met all Performance Guarantees. The Supplier may obtain a partial refund of the performance deficiencies liquidated damages earlier paid to the Owner for the generator set in accordance with the provisions of this Contract.

# **Attachment 7: Guarantee Sheet**

Supplier guarantees that each unit will achieve the Power Output, Heat Rate, Operational Capability, Load Range, Operating Requirements and Noise below:

Operational Capability, Load Range, Operating Rec	9300 kW at the site conditions below:
Guaranteed Power Output (PO - per unit)	5500 KW at the site conditions below.
Guaranteed Heat Rate (HR-per unit)	7050 BTU/kWh-LHV of Supplier auxiliaries & at the site conditions below:
Site Elevation	8 ft
Site Ambient Temperature, dry bulb	97
Site Ambient Temperature, wet bulb	77
Site Altitude	8 ft
Heat Input (HI-per unit)	67.1 MMBTU/hr-LHV
Generator Characteristics	Electrical Output
Voltage	13,800 V
Frequency	60 Hz
Power Factor	0.80 lagging
Service Voltage	480 V
Gas Fuel Main Gas Supply Pressure	225 psig
Gas Fuel Composition (%Vol)	Site conditions
CH4 - Methane	96.4262
C2H6 - Ethane	1.5917
C3H8 - Propane	0.1165
IC4H10 - I-Butane	0.0230
NC4H10 - N-Butane	0.0193
IC5H12 – I-Pentane	0.0077
NC5H12 - N-Pentane	0.0042
C6H14 - Benzene	0.0026
N2	0.1573
CO2	1.6431
CHDP – Choline Dihydrogen Phosphate	-59.79
Gas Specific Gravity	0.5810
Gas - BTU Dry	1011.2000
Gas – BTU Wet	993.6000
Guaranteed Operational Capability, Load Range, and Operating Requirements (per unit)	Per Attachment 6-1.1E,F
Guaranteed Noise (per unit)	= 100dBa at 3 feet from equipment</td
Gas Fuel Main Gas Supply Pressure min/max	138/225 psig

PO (Power Output) = Power Output at the generator

terminals

HI (Heat Input) = The fuel heat input in Btu/hr per unit, based on

the fuels LHV & at the site conditions identified

above

HR (Heat Rate) = The Heat Rate per unit, HI/PO

# **Attachment 8: Supplier's Document Submittal Schedule**

Refer to the following requirements:

- Section 481126 Reciprocating Engine-Generator and Equipment Section Attachment C Submittals
- Section 481126 Reciprocating Engine-Generator and Equipment Section 013300 Submittal Procedures
- Contract Article 11D

Supplier's Document Submittal Schedule shall be inserted after negotiated and finalized.

# **Attachment 9: Liquidated Damages - Performance**

In the event Supplier is required to pay liquidated damages due to the failure of the equipment to achieve its Performance Guarantees, Supplier shall pay to Purchaser as performance Liquidated Damages, and not as a penalty, the amount(s) indicated in Article 13, repeated below:

Criterion	Liquidated Damages
Output	US\$ 1,200 for each kW the Performance Value is below the applicable
	Performance Guarantee
Heat rate	US\$ 13,000 for each Btu/kWh (LHV) the Performance Value is above the applicable Performance Guarantee

The following formulas will be used to calculate performance liquidated damages for each Unit:

# (i) Power Output: LDAPO=(GPO-PO) x 1,200 \$/kw

PO (Power Output) = The measured Power Output in kW, as corrected

per the Test Procedure and Protocols for

operating conditions

GPO (Guaranteed Power Output) = The Guaranteed Power output in kW, as stated in

Attachment 7

LDAPO (LD Attributable to Power Output)= The total liquidated damage owed due to failure of the

Power Output to meet the Guaranteed Power

Output

# (ii) Heat Rate: LDAHR= (HR-GHR) x 13,000 \$/Btu/kWhr

HR (Heat Rate) = NPO/HI

GHR (Guaranteed Heat Rate) = The Guaranteed Heat Rate in Btu/kWhr as

stated in Attachment 7

LDAHR (LD Attributable to Heat Rate) = The total liquidated damage owed due to failure of

the Heat Rate to meet the Guaranteed Heat Rate

HI (Heat Input) = The measured fuel heat input in

Btu/hr, based on the fuels LHV, and corrected per the Test Procedure and Protocols for operating conditions

# **Attachment 10: Payment Schedule**

# A. Milestone Payment Schedule

	Payment / Milestone	Estimated Months from NTP
25%	Payment 1 - Down Payment	NTP
45%	Payment 2 – Major Equip. ready to ship	_
20%	Payment 4 - Delivery of Major Equipment	
5%	Payment 6 - Acceptance	
3%	Payment 7 - Completion of Punch List	
2%	Payment 8 - Retention	See Article 6.C.

**Attachment 11: Non-Collusion Affidavit** 

**Attachment 12: Attestations Affidavit** 

**Attachment 13: Certification Regarding Debarment or Suspension** 

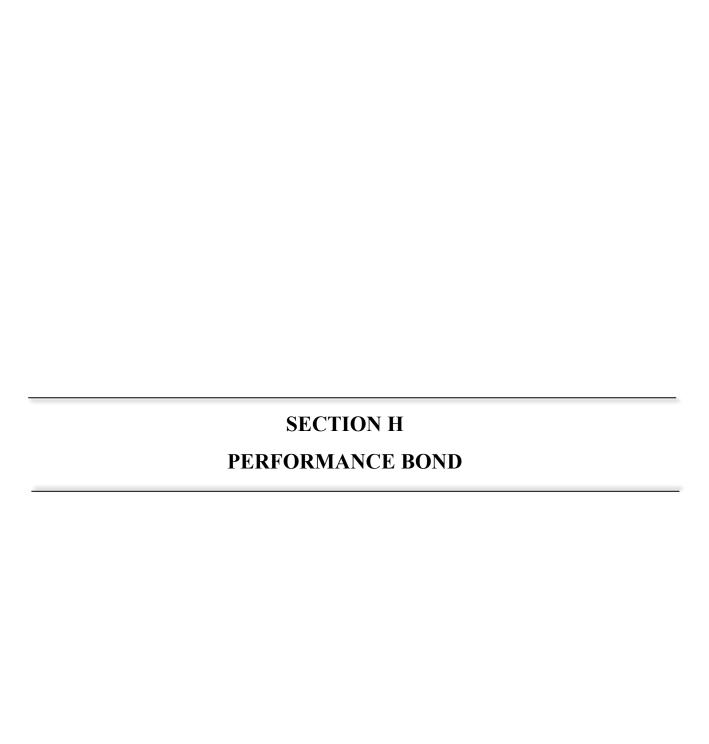
**Attachment 14: Certification Regarding Lobbying** 



# **SECTION G**

# **CONTRACTOR'S AFFIDAVIT**

STATE OF LOUISIANA PARISH OF			
BEFORE ME, the undersigned authorit	ty, on this day pers	onally came and appo	eared:
1) That he is,	, and duly whose	authorized represe address	entative of is
2) That on with Terrebonne Parish Consolidated Government, Package – Generator Procurement, Pa	the said firn ment, for the supp rish Project No. 6	n did enter into a pub ly of the <b>Houma Po</b> <b>73939, PW No. 172</b> 5	lic contract wer Plant,
3) That the firm has not employed a organization, either directly or indirectly, to se will receive payment, other than persons regu connection with the construction of said proj were in regular course of their duties for the firm	cure the said public larly employed by ject or in securing	c contract under which the firm and whose	ch he has or services in
4) That no part of the contract price re person, corporation, firm, association or other the payment of their normal compensation to preservices in connection with the construction of duties of the firm, so help him God.	organization for s persons regularly e	oliciting the contract mployed by the firm	t other than and whose
		CONTRACTOR	
* * * *	* * * * * *	*	
Sworn to and subscribed before me, thi	sday	of	, 20
		NOTARY PURI 16	



# **SECTION H**

# PERFORMANCE BOND

STATE OF LOUISIANA PARISH OF TERREBONNE

KNOW ALL MEN BY THESE PRESENTS: That as Principal, hereinafter called the CONTRACTOR, and as Surety, hereinafter called Surety, are held and firmly bound unto

THE TERREBONNE PARISH CONSOLIDATED GOVERNMENT GOVERNMENT TOWER BUILDING – 8026 MAIN STREET HOUMA, LOUISIANA 70361

as Obligee, hereinafter called the OWNER, in the amount of

for the payment whereof CONTRACTOR and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

CONTRACTOR has by written agreement dated the \_\_\_\_\_of \_\_\_\_\_\_\_, 20\_\_ entered into a contract with OWNER for, the construction of

Houma Power Plant RFP Package – Generator Procurement Parish Project No. 673939, PW No. 1725

in accordance with Drawings and Specifications prepared by the GIS Engineering, LLC, which Contract is by reference made a part thereof, and is hereinafter referred to as the Contract.

NOW, THEREFORE, the conditions of this obligation are such that, if CONTRACTOR shall promptly and faithfully perform said Contract, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

The Surety hereby waives notice of any alteration or extension of time made by the OWNER.

Whenever CONTRACTOR shall be, and declared by OWNER to be in default under the Contract, the OWNER having performed OWNER's obligations thereunder, the Surety may promptly

- 1) Complete the Contract in accordance with its terms and conditions or,
- 2) Obtain a bid or bids for completing the Contract in accordance with its terms and conditions and upon determination by Surety of the lowest responsible bidder, arrange for a Contract between such bidder and Owner, and make available as Work progresses (even though there should be a default or a succession of

defaults under the Contract or Contracts of Completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the Contract Price; but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term "balance of the Contract", as used in this paragraph shall mean the total amount payable by Owner to Contractor under the Contract and any amendments thereto, less the amount properly paid by Owner and Contractor.

Any suit under this bond must be instituted before the expiration of two (2) years from the date on which final payment under the Contract falls due.

No right or action shall accrue on this bond to or for the use of any person or corporation other than the Owner named herein or the heirs, executors, administrators or successors of the Owner.

SIGNED AND SEALED THIS	DAY OF	, 20
	(Principal)	(Seal)
(Witness)	• /	
	(Title)	(Seal)
	(Surety)	(Seal)
(Witness)		
	(Title)	(Seal)

# PAYMENT BOND

STATE OF LOUISIANA PARISH OF TERREBONNE

KNOW ALL MEN BY THESE PRESENTS: That as Principal, hereinafter called the CONTRACTOR, and as Surety, hereinafter called Surety, are held and firmly bound unto

THE TERREBONNE PARISH CONSOLIDATED GOVERNMENT GOVERNMENT TOWER BUILDING - 8026 MAIN STREET HOUMA, LOUISIANA 70361

as Obligee, hereinafter called the OWNER, in the amount of

for the payment whereof CONTRACTOR and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

CONTRACTOR has by written agreement dated the \_\_\_\_\_of \_\_\_\_\_\_\_, 20\_\_ entered into a Contract with OWNER for, the construction of the

Houma Power Plant RFP Package – Generator Procurement Parish Project No. 673939, PW No. 1725

in accordance with Drawings and Specifications prepared by the engineering firm of GIS Engineering, LLC, ENGINEER, which Contract is by reference made a part thereof, and is hereinafter referred to as the Contract.

NOW, THEREFORE, the conditions of this obligation are such that, if CONTRACTOR shall promptly make payment to all claimants as hereinafter defined, for all labor and material used or reasonably required for use in the performance of the Contract then this obligation shall be null and void; otherwise it shall remain in full force and effect, subject, however, to the following conditions:

- 1. A claimant is defined as one having a direct contract with the Contractor or with a Subcontract or of the Contractor for labor, material, or both, used or reasonably required for use in the performance of the Contract, labor and material being construed to include that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental of equipment directly applicable to the Contract.
- 2. The above named Contractor and Surety hereby jointly and severally agree with the Owner that every claimant as herein defined, who has not been paid in full before the expiration of a period of ninety (90) days after the date on which the last of such claimant's work or labor was done or performed, or materials were furnished by such claimant, may sue on this bond for the use of such claimant, prosecute the suit to final judgment for such sum or sums as may be justly due claimant, and have execution thereon. The Owner shall not be liable for the payment of any cost or expenses of any such suit.
- 3. No suit or action shall be commenced hereunder by any claimant:
- a) Unless claimant, other than one having a direct contract with the Contractor, shall have given written notice to any two of the following: the Contractor, the Owner or the Surety above named, within ninety (90) days after such claimant did or performed the last of the work or labor or furnished the last of the materials for which said claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were furnished or for whom the work or labor was done or performed. Such notice shall be served by mailing the same by registered mail or certified mail, postal prepaid in an envelope addressed to the Contractor, Owner or Surety, at any place where an office is regularly maintained for the transaction of business, or served in any manner in which legal process may be served in the state in which the aforesaid project is located, save that such service need not be made by a public officer.
- b) After the expiration of one (1) year following the date on which Contractor ceased Work on said Contract or after the expiration of one (1) year following the Date of Substantial Completion of the Project, whichever is later, it being understood, however, that if any limitation embodied in this bond is prohibited by any law controlling the construction hereof such limitation shall be deemed to be amended so as to be equal to the minimum period of limitation permitted by such law.
- c) Other than in a state court of competent jurisdiction in and for the parish or other political subdivision of the state in which the Project, or any part thereof, is situated, or in the United States District Court for the district in which the Project, or any part thereof, is situated, and not elsewhere.
- 4. The amount of this bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder, inclusive of the payment by Surety of mechanics' liens which may be filed of record against said improvement, whether or not claim for the amount of such lien be presented under and against this bond.

SIGNED AND SEALED THIS	DAY OF	, 20	
	(Principal)		(Seal)
(Witness)			
	(Title)		(Seal)
	(Surety)		(Seal)
(Witness)			







## TECHNICAL SPECIFICATIONS

# SECTION 011000 SUMMARY

## PART 1 - GENERAL

## 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

# 1.2 WORK COVERED BY CONTRACT DOCUMENTS

- A. Project Identification: New Houma Power Plant Phase 1 Generator Procurement.
  - 1. Project Location: 1551 Barrow St, Houma, LA 70360.
  - 2. Owner/Purchaser: Terrebonne Parish Consolidated Government
- B. Work described in the Contract Documents includes the furnishing of all labor, materials or equipment specified or indicated on the drawings or reasonably inferred there from for the following scope of work:

The work consists of the procurement of nine (9) reciprocating engine-generators (9.3 MW each) and equipment along with transportation, delivery and commissioning of the reciprocating engine-generators and equipment.

- C. Project will be awarded under a general supplier contract.
- D. The Contractor/Supplier is responsible for familiarizing himself with the contract documents.

# 1.3 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, Division 00 and other Division 01 Specification Sections, apply to this Section.
- B. The Contract Documents consist of the Purchaser-Supplier Agreement, the General Conditions of the Contract, the drawings, the specifications and all addenda issued prior to and all modifications issued after execution of the Contract. A modification is either a written amendment to the Contract signed by both parties, a change order, a written interpretation issued by an Architect or other authorized representative of the Owner/Purchaser, or a written order for a minor (no cost) change to the work issued by the Owner's representative.

# 1.4 USE OF PREMISES

- A. General: Contractor shall have full use of premises (within designated construction site) for construction operations.
- B. Use of Site: Limit use of premises to work in areas indicated in Construction Documents. Do not disturb portions of the project site beyond areas in which the work is indicated.





## TECHNICAL SPECIFICATIONS

- 1. Entrances: Keep entrances serving premises clear and available.
- 2. Deliveries: Contractor/supplier shall receive all deliveries in one location to minimize disruption of travel on adjacent streets.

## 1.5 WORK RESTRICTIONS

- A. Work Restrictions, General: Comply with restrictions on construction operations.
  - 1. Comply with limitations on use of public streets and other requirements of authorities having jurisdiction.
- B. On-Site Work Hours: Limit work as indicated:
  - 1. The Contractor shall limit work hours to comply with local ordinances. It shall be the Contractor's responsibility to verify any applicable noise ordinance with authorities having jurisdiction.
- C. Nonsmoking Building: Smoking is not permitted within the building or within 25 feet (8 m) of entrances, operable windows, or outdoor air intakes.
- D. Existing Utility Interruptions: Do not interrupt utilities serving facilities occupied by Owner or others unless permitted under the following conditions and then only after providing temporary utility services according to requirements indicated:
  - 1. Notify Owner not less than three (3) days in advance of proposed utility interruptions.
  - 2. Obtain Owner's written permission before proceeding with utility interruptions.
- E. Noise, Vibration, Dust, and Odors: Coordinate operations that may result in high levels of noise and vibration, dust, odors, or other disruption to Owner occupancy with Owner.
  - 1. Notify Owner not less than two (2) days in advance of proposed disruptive operations.

# 1.6 COORDINATION WITH OCCUPANTS

A. Full Owner Occupancy: Owner will occupy site and existing building(s) during entire construction period. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform the Work so as not to interfere with Owner's day-to-day operations. Maintain existing exits unless otherwise indicated.





## TECHNICAL SPECIFICATIONS

## 1.7 WORK UNDER OTHER CONTRACTS

A. General: Cooperate fully with separate contractors so work on those contracts may be carried out smoothly, without interfering with or delaying Work under this Contract or other contracts. Coordinate the Work of this Contract with work performed under separate contracts.

## 1.8 SPECIFICATION FORMATS AND CONVENTIONS

- A. Specification Format: The Specifications are organized into Divisions and Sections using the 33-division format and CSI/CSC's "MasterFormat" numbering system.
- B. Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:
  - 1. Abbreviated Language: Language used in the Specifications and other Contract Documents is abbreviated. Words and meanings shall be interpreted as appropriate. Words implied, but not stated, shall be inferred as the sense requires. Singular words shall be interpreted as plural, and plural words shall be interpreted as singular where applicable as the context of the Contract Documents indicates.
  - 2. Imperative mood and streamlined language are generally used in the Specifications. Requirements expressed in the imperative mood are to be performed by Contractor. Occasionally, the indicative or subjunctive mood may be used in the Section Text for clarity to describe responsibilities that must be fulfilled indirectly by Contractor or by others when so noted.
    - a. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.

# PART 2 - PRODUCTS

## 2.1 RESERVED

#### **PART 3 - EXECUTION**

A. The Contractor/supplier shall deliver to the product to the site along with coordination for offloading of units. Supplier shall work with Owner/Purchaser and other contractors to perform commissioning procedures on delivered units.

END OF SECTION 011000





## TECHNICAL SPECIFICATIONS

# SECTION 013300 SUBMITTAL PROCEDURES

# PART 1 - GENERAL

## 1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.
- B. See Division 01 Section "Construction Progress Documentation" for submitting schedules and reports, including Contractor's Construction Schedule.
- C. See Division 01 Section "Quality Requirements" for submitting test and inspection reports.
- D. See Division 01 Section "Closeout Procedures" for submitting warranties.
- E. See Division 01 Section "Project Record Documents" for submitting Record Drawings, Record Specifications, and Record Product Data.
- F. See Division 01 Section "Operation and Maintenance Data" for submitting operation and maintenance manuals.

# 1.2 DEFINITIONS

- A. Action Submittals: Written and graphic information that requires Architect's responsive action.
- B. Informational Submittals: Written information that does not require Architect's responsive action. Submittals may be rejected for not complying with requirements.

## 1.3 SUBMITTAL PROCEDURES

- A. Coordination: Coordinate preparation and processing of submittals with performance of construction activities.
  - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
  - 2. Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
    - a. Architect reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- B. Submittals Schedule: Comply with requirements in Division 1 Section "Construction Progress Documentation" for list of submittals and time requirements for scheduled performance of related construction activities.
- C. Processing Time: Allow enough time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect's receipt of submittal. No extension of

SECTION 013300 – SUBMITTAL PROCEDURES
Page 1
(ISSUED FOR BID)

# ENGINEERING LLC

# TERREBONNE PARISH CONSOLIDATED GOVERNMENT NEW HOUMA POWER PLANT PHASE 1 – GENERATOR PROCUREMENT



## TECHNICAL SPECIFICATIONS

the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.

- 1. Initial Review: Allow **10** days for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. Architect will advise Contractor when a submittal being processed must be delayed for coordination.
- 2. Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
- 3. Resubmittal Review: Allow 10 days for review of each resubmittal.

\*\*NOTE: ITEMS NEEDING A FINISH/COLOR SELECTION WILL REQUIRE ADDITONAL PROCESSING TIME. COLOR SELECTIONS WILL NOT BE MADE UNTIL FINISH/COLOR OPTIONS FOR ALL ITEMS ARE AVAILABLE FOR COORDIANTION OF MATERIALS. FINAL COLOR SELECTIONS WILL NEED TO BE SUBMITTED TO THE OWNER FOR REVIEW AND APPROVAL.

- D. Identification: Place a permanent label or title block on each submittal for identification.
  - 1. Indicate name of firm or entity that prepared each submittal on label or title block.
  - 2. Provide a space approximately 4 by 5 inches on label or beside title block to record Contractor's review and approval markings and action taken by Architect.
  - 3. Include the following information on label for processing and recording action taken:
    - a. Project name.
    - b. Date.
    - c. Name and address of Architect.
    - d. Name and address of Contractor.
    - e. Name and address of subcontractor.
    - f. Name and address of supplier.
    - g. Name of manufacturer.
    - h. Submittal number or other unique identifier, including revision identifier.
      - 1) Submittal number shall use Specification Section number followed by a decimal point and then a sequential number (e.g., 06100.01). Resubmittals shall include an alphabetic suffix after another decimal point (e.g., 06100.01.A).
    - i. Number and title of appropriate Specification Section.
    - j. Drawing number and detail references, as appropriate.
    - k. Location(s) where product is to be installed, as appropriate.
    - 1. Other necessary identification.
- E. Deviations: Highlight, encircle, or otherwise specifically identify deviations from the Contract Documents on submittals.
- F. Additional Copies: Unless additional copies are required for final submittal, and unless Architect observes noncompliance with provisions in the Contract Documents, initial submittal may serve as final submittal.
  - 1. Additional copies submitted for maintenance manuals will be marked with action taken and will be returned.





#### TECHNICAL SPECIFICATIONS

- G. Transmittal: Package each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. Architect will return submittals, without review, received from sources other than Contractor.
- H. Resubmittals: Make resubmittals in same form and number of copies as initial submittal.
  - 1. Note date and content of previous submittal.
  - 2. Note date and content of revision in label or title block and clearly indicate extent of revision.
  - 3. Resubmit submittals until they are marked "Approved" or "Approved as Noted."
- I. Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.
- J. Use for Construction: Use only final submittals with mark indicating "Approved" or "Approved as Noted" taken by Architect.

# 1.4 CONTRACTOR'S USE OF ARCHITECT'S CAD FILES

- A. General: At Contractor's written request, copies of Architect's CAD files will be provided to Contractor, at a fee to be determined by Architect, for Contractor's use in connection with Project, subject to the following conditions:
  - 1. It is understood that the electronic files are not contract documents. Significant differences may exist between electronic files and corresponding hard copy Contract Documents due to addenda, change orders, or other revisions which have not been incorporated into electronic drawings. Electronic drawings might not be drawn to scale. Additional related work and materials might be shown on other drawings or may be required by the specifications. Duplantis Design Group, PC (DDG) makes no representation regarding the accuracy or completeness of electronic files. In the event that a conflict arises between the signed Contract Documents and electronic files, the signed Contract Documents shall govern. The User of the electronic files is responsible for determining if any conflicts exist. By use of electronic files, User is not relieved of his duty to fully comply with the Contract Documents, including and without limitation, the responsibility to check, confirm and coordinate all dimensions and details, take field measurements, verify field conditions and coordinate all work with that of other contractors for the project.
  - 2. User agrees to make no claim and hereby waives, to the fullest extent permitted by law, any claim or cause of action of any nature against DDG, its officers, directors, employees, agents or subconsultants which may arise out of or in connection with the use of these electronic files.
  - 3. User further agrees, to the fullest extent permitted by law, to indemnify and hold harmless DDG, its officers, directors, employees, agents or subconsultants, from all claims, damages losses and expenses, including attorney's fees arising out of or resulting from the use of these electronic files

# ENGINEERING LLC

# TERREBONNE PARISH CONSOLIDATED GOVERNMENT NEW HOUMA POWER PLANT PHASE 1 – GENERATOR PROCUREMENT



#### TECHNICAL SPECIFICATIONS

#### PART 2 - PRODUCTS

# 2.1 ACTION SUBMITTALS

- A. General: Prepare and submit Action Submittals required by individual Specification Sections.
- B. Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.
  - 1. If information must be specially prepared for submittal because standard printed data are not suitable for use, submit as Shop Drawings, not as Product Data.
  - 2. Mark each copy of each submittal to show which products and options are applicable.
  - 3. Include the following information, as applicable:
    - a. Manufacturer's written recommendations.
    - b. Manufacturer's product specifications.
    - c. Manufacturer's installation instructions.
    - d. Manufacturer's catalog cuts.
    - e. Wiring diagrams showing factory-installed wiring.
    - f. Printed performance curves.
    - g. Operational range diagrams.
    - h. Compliance with specified referenced standards.
    - i. Testing by recognized testing agency.
  - 4. Number of Copies: Submit not less than five copies of Product Data, unless otherwise indicated. Architect will return not less than two copies. Mark up and retain one returned copy as a Project Record Document.
- C. Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.
  - 1. Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
    - a. Dimensions.
    - b. Identification of products.
    - c. Fabrication and installation drawings.
    - d. Roughing-in and setting diagrams.
    - e. Wiring diagrams showing field-installed wiring, including power, signal, and control wiring.
    - f. Shopwork manufacturing instructions.
    - g. Templates and patterns.
    - h. Schedules.
    - i. Notation of coordination requirements.
    - j. Notation of dimensions established by field measurement.
    - k. Relationship to adjoining construction clearly indicated.
    - 1. Seal and signature of professional engineer if specified.
    - m. Wiring Diagrams: Differentiate between manufacturer-installed and field-installed wiring.
  - 2. Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches but no larger than 30 by 40 inches.

SECTION 013300 – SUBMITTAL PROCEDURES
Page 4
(ISSUED FOR BID)

## TERREBONNE PARISH CONSOLIDATED GOVERNMENT NEW HOUMA POWER PLANT PHASE 1 – GENERATOR PROCUREMENT



### TECHNICAL SPECIFICATIONS

- 3. Number of Copies: Submit five opaque (bond) copies of each submittal. Architect will return one copy.
- D. Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.
  - 1. Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
  - 2. Identification: Attach label on unexposed side of Samples that includes the following:
    - a. Generic description of Sample.
    - b. Product name and name of manufacturer.
    - c. Sample source.
    - d. Number and title of appropriate Specification Section.
  - 3. Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
  - 4. Samples for Initial Selection: Submit manufacturer's color charts consisting of units or sections of units showing the full range of colors, textures, and patterns available.
    - a. Number of Samples: Submit one full set(s) of available choices where color, pattern, texture, or similar characteristics are required to be selected from manufacturer's product line. Architect will return submittal with options selected.
- E. Submittals Schedule: Comply with requirements specified in Division 1 Section "Construction Progress Documentation."
- F. Application for Payment: Comply with requirements specified in Division 1 Section "Payment Procedures."
- G. Schedule of Values: Comply with requirements specified in Division 1 Section "Payment Procedures."
- H. Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Include the following information in tabular form:
  - 1. Number of Copies: Submit three copies of subcontractor list, unless otherwise indicated. Architect will return one copies.

## 2.2 INFORMATIONAL SUBMITTALS

- A. General: Prepare and submit Informational Submittals required by other Specification Sections.
  - 1. Number of Copies: Submit two copies of each submittal, unless otherwise indicated. Architect will not return copies.
  - 2. Certificates and Certifications: Provide a notarized statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.

SECTION 013300 – SUBMITTAL PROCEDURES
Page 5
(ISSUED FOR BID)

## TERREBONNE PARISH CONSOLIDATED GOVERNMENT NEW HOUMA POWER PLANT PHASE 1 – GENERATOR PROCUREMENT



### TECHNICAL SPECIFICATIONS

- 3. Test and Inspection Reports: Comply with requirements specified in Division 1 Section "Quality Requirements."
- B. Coordination Drawings: Comply with requirements specified in Division 1 Section "Project Management and Coordination."
- C. Contractor's Construction Schedule: Comply with requirements specified in Division 1 Section "Construction Progress Documentation."
- D. Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.
- E. Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of Welding Procedure Specification (WPS) and Procedure Qualification Record (PQR) on AWS forms. Include names of firms and personnel certified.
- F. Installer Certificates: Prepare written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
- G. Manufacturer Certificates: Prepare written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
- H. Product Certificates: Prepare written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.
- I. Material Certificates: Prepare written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
- J. Material Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.
- K. Product Test Reports: Prepare written reports indicating current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.
- L. Research/Evaluation Reports: Prepare written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project.
- M. Preconstruction Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.

SECTION 013300 – SUBMITTAL PROCEDURES
Page 6
(ISSUED FOR BID)

## TERREBONNE PARISH CONSOLIDATED GOVERNMENT NEW HOUMA POWER PLANT PHASE 1 – GENERATOR PROCUREMENT



### TECHNICAL SPECIFICATIONS

- N. Compatibility Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.
- O. Field Test Reports: Prepare reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.
- P. Maintenance Data: Prepare written and graphic instructions and procedures for operation and normal maintenance of products and equipment. Comply with requirements specified in Division 1 Section "Operation and Maintenance Data."
- Q. Design Data: Prepare written and graphic information, including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.
- R. Manufacturer's Instructions: Prepare written or published information that documents manufacturer's recommendations, guidelines, and procedures for installing or operating a product or equipment. Include name of product and name, address, and telephone number of manufacturer.
- S. Manufacturer's Field Reports: Prepare written information documenting factory-authorized service representative's tests and inspections. Include the following, as applicable:
  - 1. Statement on condition of substrates and their acceptability for installation of product.
  - 2. Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
  - 3. Results of operational and other tests and a statement of whether observed performance complies with requirements.
- T. Insurance Certificates and Bonds: Prepare written information indicating current status of insurance or bonding coverage. Include name of entity covered by insurance or bond, limits of coverage, amounts of deductibles, if any, and term of the coverage.
- U. Material Safety Data Sheets (MSDSs): Submit information directly to Owner; do not submit to Architect.
  - 1. Architect will not review submittals that include MSDSs and will return them for resubmittal.

## 2.3 DELEGATED DESIGN

A. Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.

SECTION 013300 – SUBMITTAL PROCEDURES
Page 7
(ISSUED FOR BID)

## TERREBONNE PARISH CONSOLIDATED GOVERNMENT NEW HOUMA POWER PLANT PHASE 1 – GENERATOR PROCUREMENT



### TECHNICAL SPECIFICATIONS

- 1. If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to Architect.
- B. Delegated-Design Submittal: In addition to Shop Drawings, Product Data, and other required submittals, submit five copies of a statement, signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional.
  - 1. Indicate that products and systems comply with performance and design criteria in the Contract Documents. Include list of codes, loads, and other factors used in performing these services.

### PART 3 - EXECUTION

## 3.1 CONTRACTOR'S REVIEW

- A. Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to Architect.
- B. Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.

### 3.2 ARCHITECT'S ACTION

- A. General: Architect will not review submittals that do not bear Contractor's approval stamp and will return them without action.
- B. Action Submittals: Architect will review each submittal, make marks to indicate corrections or modifications required, and return it. Architect will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action taken.
- C. Informational Submittals: Architect will review each submittal and will not return it, or will return it if it does not comply with requirements. Architect will forward each submittal to appropriate party.
- D. Partial submittals are not acceptable, will be considered nonresponsive, and will be returned without review.
- E. Submittals not required by the Contract Documents may not be reviewed and may be discarded.

END OF SECTION 013300



## TERREBONNE PARISH CONSOLIDATED GOVERNMENT NEW HOUMA POWER PLANT PHASE 1 – GENERATOR PROCUREMENT



#### TECHNICAL SPECIFICATIONS

## SECTION 014000 QUALITY REQUIREMENTS

## PART 1 - GENERAL

### 1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for quality assurance and quality control.
- B. Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.
  - 1. Specified tests, inspections, and related actions do not limit Contractor's other quality-assurance and -control procedures that facilitate compliance with the Contract Document requirements.
  - 2. Requirements for Contractor to provide quality-assurance and -control services required by Architect, Owner, or authorities having jurisdiction are not limited by provisions of this Section.
- C. See Divisions 02 through 33 Sections for specific test and inspection requirements.

### 1.2 DEFINITIONS

- A. Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.
- B. Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that actual products incorporated into the Work and completed construction comply with requirements. Services do not include contract enforcement activities performed by Architect.
- C. Mockups: Full-size, physical assemblies that are constructed on-site. Mockups are used to verify selections made under sample submittals, to demonstrate aesthetic effects and, where indicated, qualities of materials and execution, and to review construction, coordination, testing, or operation; they are not Samples. Approved mockups establish the standard by which the Work will be judged.
- D. Laboratory Mockups: Full-size, physical assemblies that are constructed at testing facility to verify performance characteristics.
- E. Preconstruction Testing: Tests and inspections that are performed specifically for the Project before products and materials are incorporated into the Work to verify performance or compliance with specified criteria.

## TERREBONNE PARISH CONSOLIDATED GOVERNMENT NEW HOUMA POWER PLANT PHASE 1 – GENERATOR PROCUREMENT



#### TECHNICAL SPECIFICATIONS

- F. Product Testing: Tests and inspections that are performed by an NRTL, an NVLAP, or a testing agency qualified to conduct product testing and acceptable to authorities having jurisdiction, to establish product performance and compliance with industry standards.
- G. Source Quality-Control Testing: Tests and inspections that are performed at the source, i.e., plant, mill, factory, or shop.
- H. Field Quality-Control Testing: Tests and inspections that are performed on-site for installation of the Work and for completed Work.
- I. Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.
- J. Installer/Applicator/Erector: Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform a particular construction operation, including installation, erection, application, and similar operations.
  - 1. Using a term such as "carpentry" does not imply that certain construction activities must be performed by accredited or unionized individuals of a corresponding generic name, such as "carpenter." It also does not imply that requirements specified apply exclusively to tradespeople of the corresponding generic name.
- K. Experienced: When used with an entity, "experienced" means having successfully completed a minimum of five previous projects similar in size and scope to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.

## 1.3 CONFLICTING REQUIREMENTS

- A. General: If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer uncertainties and requirements that are different, but apparently equal, to Architect for a decision before proceeding.
- B. Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Architect for a decision before proceeding.

## 1.4 SUBMITTALS

- A. Qualification Data: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.
- B. Reports: Prepare and submit certified written reports that include the following:
  - 1. Date of issue.

SECTION 014000 – QUALITY REQUIREMENTS
Page 2
(ISSUED FOR BID)

### TERREBONNE PARISH CONSOLIDATED GOVERNMENT NEW HOUMA POWER PLANT PHASE 1 – GENERATOR PROCUREMENT



### TECHNICAL SPECIFICATIONS

- 2. Project title and number.
- 3. Name, address, and telephone number of testing agency.
- 4. Dates and locations of samples and tests or inspections.
- 5. Names of individuals making tests and inspections.
- 6. Description of the Work and test and inspection method.
- 7. Identification of product and Specification Section.
- 8. Complete test or inspection data.
- 9. Test and inspection results and an interpretation of test results.
- 10. Record of temperature and weather conditions at time of sample taking and testing and inspecting.
- 11. Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
- 12. Name and signature of laboratory inspector.
- 13. Recommendations on retesting and reinspecting.
- C. Permits, Licenses, and Certificates: For Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established for compliance with standards and regulations bearing on performance of the Work.

## 1.5 QUALITY ASSURANCE

- A. General: Qualifications paragraphs in this Article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.
- B. Installer Qualifications: A firm or individual experienced in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.
- C. Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- D. Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- E. Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or product that are similar to those indicated for this Project in material, design, and extent.
- F. Specialists: Certain sections of the Specifications require that specific construction activities shall be performed by entities who are recognized experts in those operations. Specialists shall satisfy qualification requirements indicated and shall be engaged for the activities indicated.
  - 1. Requirement for specialists shall not supersede building codes and regulations governing the Work.

SECTION 014000 – QUALITY REQUIREMENTS
Page 3
(ISSUED FOR BID)

## TERREBONNE PARISH CONSOLIDATED GOVERNMENT NEW HOUMA POWER PLANT PHASE 1 – GENERATOR PROCUREMENT



#### TECHNICAL SPECIFICATIONS

- G. Testing Agency Qualifications: An NRTL, an NVLAP, or an independent agency with the experience and capability to conduct testing and inspecting indicated, as documented according to ASTM E 548; and with additional qualifications specified in individual Sections; and where required by authorities having jurisdiction, that is acceptable to authorities.
  - 1. NRTL: A nationally recognized testing laboratory according to 29 CFR 1910.7.
  - 2. NVLAP: A testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program.
- H. Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- I. Mockups: Before installing portions of the Work requiring mockups, build mockups for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work:
  - 1. Build mockups in location and of size indicated or, if not indicated, as directed by Architect.
  - 2. Notify Architect seven days in advance of dates and times when mockups will be constructed.
  - 3. Demonstrate the proposed range of aesthetic effects and workmanship.
  - 4. Obtain Architect's approval of mockups before starting work, fabrication, or construction.
  - 5. Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work.
  - 6. Demolish and remove mockups when directed, unless otherwise indicated.

## 1.6 QUALITY CONTROL

- A. Owner Responsibilities: Where quality-control services are indicated as Owner's responsibility, Owner will engage a qualified testing agency to perform these services.
  - 1. Owner will furnish Contractor with names, addresses, and telephone numbers of testing agencies engaged and a description of types of testing and inspecting they are engaged to perform.
  - 2. Costs for re-testing and re-inspecting construction that replaces or is necessitated by work that failed to comply with the Contract Documents will be charged to Contractor, and the Contract Sum will be adjusted by Change Order.
- B. Tests and inspections not explicitly assigned to Owner are Contractor's responsibility. Unless otherwise indicated, provide quality-control services specified and those required by authorities having jurisdiction. Perform quality-control services required of Contractor by authorities having jurisdiction, whether specified or not.
  - 1. Where services are indicated as Contractor's responsibility, engage a qualified testing agency to perform these quality-control services.
    - a. Contractor shall not employ same entity engaged by Owner, unless agreed to in writing by Owner.
  - 2. Notify testing agencies at least 24 hours in advance of time when Work that requires testing or inspecting will be performed.

SECTION 014000 – QUALITY REQUIREMENTS
Page 4
(ISSUED FOR BID)

## TERREBONNE PARISH CONSOLIDATED GOVERNMENT NEW HOUMA POWER PLANT PHASE 1 – GENERATOR PROCUREMENT



### TECHNICAL SPECIFICATIONS

- 3. Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
- 4. Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
- 5. Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.
- C. Manufacturer's Field Services: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing as specified in Division 1 Section "Submittal Procedures."
- D. Retesting/Reinspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and reinspecting, for construction that replaced Work that failed to comply with the Contract Documents.
- E. Testing Agency Responsibilities: Cooperate with Architect and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.
  - 1. Notify Architect and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
  - 2. Determine the location from which test samples will be taken and in which in-situ tests are conducted.
  - 3. Conduct and interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.
  - 4. Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.
  - 5. Do not release, revoke, alter, or increase the Contract Document requirements or approve or accept any portion of the Work.
  - 6. Do not perform any duties of Contractor.
- F. Associated Services: Cooperate with agencies performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:
  - 1. Access to the Work.
  - 2. Incidental labor and facilities necessary to facilitate tests and inspections.
  - 3. Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
  - 4. Facilities for storage and field curing of test samples.
  - 5. Delivery of samples to testing agencies.
  - 6. Preliminary design mix proposed for use for material mixes that require control by testing agency.
  - 7. Security and protection for samples and for testing and inspecting equipment at Project site.



## TERREBONNE PARISH CONSOLIDATED GOVERNMENT NEW HOUMA POWER PLANT PHASE 1 – GENERATOR PROCUREMENT



### TECHNICAL SPECIFICATIONS

- G. Coordination: Coordinate sequence of activities to accommodate required quality-assurance and control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.
  - 1. Schedule times for tests, inspections, obtaining samples, and similar activities.

### 1.7 SPECIAL TESTS AND INSPECTIONS

- A. Special Tests and Inspections: Conducted by a qualified testing agency as required by authorities having jurisdiction, as indicated in individual Specification Sections, and as follows:
  - 1. Verifying that manufacturer maintains detailed fabrication and quality-control procedures and reviewing the completeness and adequacy of those procedures to perform the Work.
  - 2. Notifying Architect and Contractor promptly of irregularities and deficiencies observed in the Work during performance of its services.
  - 3. Submitting a certified written report of each test, inspection, and similar quality-control service to Architect with copy to Contractor and to authorities having jurisdiction.
  - 4. Submitting a final report of special tests and inspections at Substantial Completion, which includes a list of unresolved deficiencies.
  - 5. Interpreting tests and inspections and stating in each report whether tested and inspected work complies with or deviates from the Contract Documents.
  - 6. Retesting and reinspecting corrected work.

### PART 2 - PRODUCTS (Not Used)

## PART 3 - EXECUTION

#### 3.1 REPAIR AND PROTECTION

- A. General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.
  - 1. Comply with the Contract Document requirements for Division 1 Section "Cutting and Patching."
- B. Protect construction exposed by or for quality-control service activities.
- C. Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION 014000



## TERREBONNE PARISH CONSOLIDATED GOVERNMENT NEW HOUMA POWER PLANT PHASE 1 – GENERATOR PROCUREMENT



#### TECHNICAL SPECIFICATIONS

## SECTION 016000 PRODUCT REQUIREMENTS

## PART 1 - GENERAL

### 1.1 SUMMARY

- A. This Section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; product substitutions; and comparable products.
- B. See Division 01 Section "Closeout Procedures" for submitting warranties for Contract closeout.
- C. See Divisions 02 through 33 Sections for specific requirements for warranties on products and installations specified to be warranted.

### 1.2 DEFINITIONS

- A. Products: Items purchased for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
  - 1. Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature, that is current as of date of the Contract Documents.
  - 2. New Products: Items that have not previously been incorporated into another project or facility. Products salvaged or recycled from other projects are not considered new products.
  - 3. Comparable Product: Product that is demonstrated and approved through submittal process, or where indicated as a product substitution, to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.
- B. Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.
- C. Basis-of-Design Product Specification: Where a specific manufacturer's product is named and accompanied by the words "basis of design," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of other named manufacturers.

## 1.3 SUBMITTALS

- A. Substitution Requests: Submit three copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
  - 1. Substitution Request Form: No special form required.

SECTION 016000 – PRODUCT REQUIREMENTS
Page 1
(ISSUED FOR BID)

## TERREBONNE PARISH CONSOLIDATED GOVERNMENT NEW HOUMA POWER PLANT PHASE 1 – GENERATOR PROCUREMENT



### TECHNICAL SPECIFICATIONS

- 2. Documentation: Show compliance with requirements for substitutions and the following, as applicable:
  - a. Statement indicating why specified material or product cannot be provided.
  - b. Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by Owner and separate contractors, that will be necessary to accommodate proposed substitution.
  - c. Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
  - d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
  - e. Samples, where applicable or requested.
  - f. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners.
  - g. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
  - h. Research/evaluation reports evidencing compliance with building code in effect for Project, from a model code organization acceptable to authorities having jurisdiction.
  - i. Detailed comparison of Contractor's Construction Schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating lack of availability or delays in delivery.
  - j. Cost information, including a proposal of change, if any, in the Contract Sum.
  - k. Contractor's certification that proposed substitution complies with requirements in the Contract Documents and is appropriate for applications indicated.
  - l. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
- 3. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within 7 days of receipt of a request for substitution. Architect will notify Contractor of acceptance or rejection of proposed substitution within 15 days of receipt of request, or 7 days of receipt of additional information or documentation, whichever is later.
  - a. Form of Acceptance: Change Order.
  - b. Use product specified if Architect cannot make a decision on use of a proposed substitution within time allocated.
- B. Comparable Product Requests: Submit three copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
  - 1. Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within one week of receipt of a comparable product request. Architect will notify Contractor of approval or rejection of proposed comparable

# ENGINEERING uc

## TERREBONNE PARISH CONSOLIDATED GOVERNMENT NEW HOUMA POWER PLANT PHASE 1 – GENERATOR PROCUREMENT



### TECHNICAL SPECIFICATIONS

product request within 15 days of receipt of request, or 7 days of receipt of additional information or documentation, whichever is later.

- a. Form of Approval: As specified in Division 01 Section "Submittal Procedures."
- b. Use product specified if Architect cannot make a decision on use of a comparable product request within time allocated.
- C. Basis-of-Design Product Specification Submittal: Comply with requirements in Division 1 Section "Submittal Procedures." Show compliance with requirements.

### 1.4 QUALITY ASSURANCE

A. Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, product selected shall be compatible with products previously selected, even if previously selected products were also options.

## 1.5 PRODUCT DELIVERY, STORAGE, AND HANDLING

A. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft. Comply with manufacturer's written instructions.

### B. Delivery and Handling:

- 1. Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
- 2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
- 3. Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
- 4. Inspect products on delivery to ensure compliance with the Contract Documents and to ensure that products are undamaged and properly protected.

## C. Storage:

- 1. Store products to allow for inspection and measurement of quantity or counting of units.
- 2. Store materials in a manner that will not endanger Project structure.
- 3. Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
- 4. Store cementitious products and materials on elevated platforms.
- 5. Store foam plastic from exposure to sunlight, except to extent necessary for period of installation and concealment.
- 6. Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
- 7. Protect stored products from damage and liquids from freezing.

#### 1.6 PRODUCT WARRANTIES

A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on

 $SECTION\ 016000-PRODUCT\ REQUIREMENTS$ 

# ENGINEERING u.c

## TERREBONNE PARISH CONSOLIDATED GOVERNMENT NEW HOUMA POWER PLANT PHASE 1 – GENERATOR PROCUREMENT



### TECHNICAL SPECIFICATIONS

product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.

- 1. Manufacturer's Warranty: Preprinted written warranty published by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.
- 2. Special Warranty: Written warranty required by or incorporated into the Contract Documents, either to extend time limit provided by manufacturer's warranty or to provide more rights for Owner.
- B. Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution. Submit a draft for approval before final execution.
  - 1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
  - 2. Specified Form: When specified forms are included with the Specifications, prepare a written document using appropriate form properly executed.
  - 3. Refer to Divisions 02 through 33 Sections for specific content requirements and particular requirements for submitting special warranties.
- C. Submittal Time: Comply with requirements in Division 01 Section "Closeout Procedures."

### PART 2 - PRODUCTS

### 2.1 PRODUCT SELECTION PROCEDURES

- A. General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged and, unless otherwise indicated, that are new at time of installation.
  - 1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
  - 2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
  - 3. Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
  - 4. Where products are accompanied by the term "as selected," Architect will make selection.
  - 5. Where products are accompanied by the term "match sample," sample to be matched is Architect's.
  - 6. Descriptive, performance, and reference standard requirements in the Specifications establish "salient characteristics" of products.

### B. Product Selection Procedures:

- 1. Product: Where Specifications name a single product and manufacturer, provide the named product that complies with requirements.
- 2. Manufacturer/Source: Where Specifications name a single manufacturer or source, provide a product by the named manufacturer or source that complies with requirements.
- 3. Products: Where Specifications include a list of names of both products and manufacturers, provide one of the products listed that complies with requirements.

SECTION 016000 – PRODUCT REOUIREMENTS

# ENGINEERING uc

## TERREBONNE PARISH CONSOLIDATED GOVERNMENT NEW HOUMA POWER PLANT PHASE 1 – GENERATOR PROCUREMENT



### TECHNICAL SPECIFICATIONS

- 4. Manufacturers: Where Specifications include a list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements.
- 5. Available Products: Where Specifications include a list of names of both products and manufacturers, provide one of the products listed, or an unnamed product, that complies with requirements. Comply with provisions in Part 2 "Comparable Products" Article for consideration of an unnamed product.
- 6. Available Manufacturers: Where Specifications include a list of manufacturers, provide a product by one of the manufacturers listed, or an unnamed manufacturer, that complies with requirements. Comply with provisions in Part 2 "Comparable Products" Article for consideration of an unnamed product.
- 7. Product Options: Where Specifications indicate that sizes, profiles, and dimensional requirements on Drawings are based on a specific product or system, provide the specified product or system. Comply with provisions in Part 2 "Product Substitutions" Article for consideration of an unnamed product or system.
- 8. Basis-of-Design Product: Where Specifications name a product and include a list of manufacturers, provide the specified product or a comparable product by one of the other named manufacturers. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with provisions in Part 2 "Comparable Products" Article for consideration of an unnamed product by the other named manufacturers.
- 9. Visual Matching Specification: Where Specifications require matching an established Sample, select a product that complies with requirements and matches Architect's sample. Architect's decision will be final on whether a proposed product matches.
  - a. If no product available within specified category matches and complies with other specified requirements, comply with provisions in Part 2 "Product Substitutions" Article for proposal of product.
- 10. Visual Selection Specification: Where Specifications include the phrase "as selected from manufacturer's colors, patterns, textures" or a similar phrase, select a product that complies with other specified requirements.
  - a. Standard Range: Where Specifications include the phrase "standard range of colors, patterns, textures" or similar phrase, Architect will select color, pattern, density, or texture from manufacturer's product line that does not include premium items.
  - b. Full Range: Where Specifications include the phrase "full range of colors, patterns, textures" or similar phrase, Architect will select color, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.

### 2.2 PRODUCT SUBSTITUTIONS

- A. Timing: In accordance with the General & Supplementary Conditions of the Contract.
- B. Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
  - 1. Requested substitution offers Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities Owner



## TERREBONNE PARISH CONSOLIDATED GOVERNMENT NEW HOUMA POWER PLANT PHASE 1 – GENERATOR PROCUREMENT



### TECHNICAL SPECIFICATIONS

must assume. Owner's additional responsibilities may include compensation to Architect for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.

- 2. Requested substitution does not require extensive revisions to the Contract Documents.
- 3. Requested substitution is consistent with the Contract Documents and will produce indicated results.
- 4. Substitution request is fully documented and properly submitted.
- 5. Requested substitution will not adversely affect Contractor's Construction Schedule.
- 6. Requested substitution has received necessary approvals of authorities having jurisdiction.
- 7. Requested substitution is compatible with other portions of the Work.
- 8. Requested substitution has been coordinated with other portions of the Work.
- 9. Requested substitution provides specified warranty.

#### 2.3 COMPARABLE PRODUCTS

- A. Conditions: Architect will consider Contractor's request for comparable product when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
  - 1. Evidence that the proposed product does not require extensive revisions to the Contract Documents, that it is consistent with the Contract Documents and will produce the indicated results, and that it is compatible with other portions of the Work.
  - 2. Detailed comparison of significant qualities of proposed product with those named in the Specifications. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
  - 3. Evidence that proposed product provides specified warranty.
  - 4. List of similar installations for completed projects with project names and addresses and names and addresses of architects and owners, if requested.
  - 5. Samples, if requested.

PART 3 - EXECUTION (Not Used)

END OF SECTION 016000



## TERREBONNE PARISH CONSOLIDATED GOVERNMENT NEW HOUMA POWER PLANT PHASE 1 – GENERATOR PROCUREMENT



#### TECHNICAL SPECIFICATIONS

## SECTION 017300 EXECUTION REQUIREMENTS

## PART 1 - GENERAL

### 1.1 SUMMARY

- A. This Section includes general procedural requirements governing execution of the Work including, but not limited to, the following:
  - 1. Construction layout.
  - 2. Field engineering and surveying.
  - 3. General installation of products.
  - 4. Progress cleaning.
  - 5. Starting and adjusting.
  - 6. Protection of installed construction.
  - 7. Correction of the Work.
- B. See Division 01 Section "Closeout Procedures" for submitting final property survey with Project Record Documents, recording of Owner-accepted deviations from indicated lines and levels, and final cleaning.

## 1.2 SUBMITTALS

- A. Certificates: Submit certificate signed by land surveyor certifying that location and elevation of improvements comply with requirements.
- B. Landfill Receipts: Submit copy of receipts issued by a landfill facility, licensed to accept hazardous materials, for hazardous waste disposal.
- C. Certified Surveys: Submit 2 copies signed by land surveyor.
- D. Final Property Survey: Submit 5 copies showing the Work performed and record survey data.

## 1.3 QUALITY ASSURANCE

A. Land Surveyor Qualifications: A professional land surveyor who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing land-surveying services of the kind indicated.

### PART 2 - PRODUCTS (Not Used)

## **PART 3 - EXECUTION**

#### 3.1 EXAMINATION

A. Existing Conditions: The existence and location of site improvements, utilities, and other construction indicated as existing are not guaranteed. Before beginning work, investigate and

SECTION 017300 – EXECUTION REQUIREMENTS
Page 1
(ISSUED FOR BID)

## TERREBONNE PARISH CONSOLIDATED GOVERNMENT NEW HOUMA POWER PLANT PHASE 1 – GENERATOR PROCUREMENT



### TECHNICAL SPECIFICATIONS

verify the existence and location of mechanical and electrical systems and other construction affecting the Work.

- 1. Before construction, verify the location and points of connection of utility services.
- B. Existing Utilities: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning sitework, investigate and verify the existence and location of underground utilities and other construction affecting the Work.
  - 1. Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, and water-service piping; and underground electrical services.
  - 2. Furnish location data for work related to Project that must be performed by public utilities serving Project site.
- C. Acceptance of Conditions: Examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations.
  - 1. Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
  - 2. Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
  - 3. Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
  - 4. Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

## 3.2 PREPARATION

- A. Existing Utility Information: Furnish information to local utility and Owner that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.
- B. Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- C. Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- D. Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents, submit a request for information to Architect. Include a detailed description of problem encountered, together with recommendations for changing the Contract Documents.

## TERREBONNE PARISH CONSOLIDATED GOVERNMENT NEW HOUMA POWER PLANT PHASE 1 – GENERATOR PROCUREMENT



#### TECHNICAL SPECIFICATIONS

#### 3.3 CONSTRUCTION LAYOUT

- A. Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to the property survey and existing benchmarks. If discrepancies are discovered, notify Architect promptly.
- B. General: Engage a land surveyor to lay out the Work using accepted surveying practices.
  - 1. Establish benchmarks and control points to set lines and levels at each story of construction and elsewhere as needed to locate each element of Project.
  - 2. Establish dimensions within tolerances indicated. Do not scale Drawings to obtain required dimensions.
  - 3. Inform installers of lines and levels to which they must comply.
  - 4. Check the location, level and plumb, of every major element as the Work progresses.
  - 5. Notify Architect when deviations from required lines and levels exceed allowable tolerances.
  - 6. Close site surveys with an error of closure equal to or less than the standard established by authorities having jurisdiction.
- C. Site Improvements: Locate and lay out site improvements, including pavements, grading, fill and topsoil placement, utility slopes, and invert elevations.
- D. Building Lines and Levels: Locate and lay out control lines and levels for structures, building foundations, column grids, and floor levels, including those required for mechanical and electrical work. Transfer survey markings and elevations for use with control lines and levels. Level foundations and piers from two or more locations.
- E. Record Log: Maintain a log of layout control work. Record deviations from required lines and levels. Include beginning and ending dates and times of surveys, weather conditions, name and duty of each survey party member, and types of instruments and tapes used. Make the log available for reference by Architect.

### 3.4 FIELD ENGINEERING

- A. Reference Points: Locate existing permanent benchmarks, control points, and similar reference points before beginning the Work. Preserve and protect permanent benchmarks and control points during construction operations.
- B. Benchmarks: Establish and maintain a minimum of 2 permanent benchmarks on Project site, referenced to data established by survey control points. Comply with authorities having jurisdiction for type and size of benchmark.
  - 1. Record benchmark locations, with horizontal and vertical data, on Project Record Documents.
- C. Final Property Survey: Prepare a final property survey showing significant features (real property) for Project. Include on the survey a certification, signed by land surveyor, that principal metes, bounds, lines, and levels of Project are accurately positioned as shown on the survey.

SECTION 017300 – EXECUTION REQUIREMENTS
Page 3
(ISSUED FOR BID)

## TERREBONNE PARISH CONSOLIDATED GOVERNMENT NEW HOUMA POWER PLANT PHASE 1 – GENERATOR PROCUREMENT



### TECHNICAL SPECIFICATIONS

1. Recording: At Substantial Completion, have the final property survey recorded by or with authorities having jurisdiction as the official "property survey."

## 3.5 INSTALLATION

- A. General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
  - 1. Make vertical work plumb and make horizontal work level.
  - 2. Where space is limited, install components to maximize space available for maintenance and ease of removal for replacement.
  - 3. Conceal pipes, ducts, and wiring in finished areas, unless otherwise indicated.
- B. Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.
- C. Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.
- D. Conduct construction operations so no part of the Work is subjected to damaging operations or loading in excess of that expected during normal conditions of occupancy.
- E. Tools and Equipment: Do not use tools or equipment that produce harmful noise levels.
- F. Templates: Obtain and distribute to the parties involved templates for work specified to be factory prepared and field installed. Check Shop Drawings of other work to confirm that adequate provisions are made for locating and installing products to comply with indicated requirements.
- G. Anchors and Fasteners: Provide anchors and fasteners as required to anchor each component securely in place, accurately located and aligned with other portions of the Work.
  - 1. Mounting Heights: Where mounting heights are not indicated, mount components at heights directed by Architect.
  - 2. Allow for building movement, including thermal expansion and contraction.
  - 3. Coordinate installation of anchorages. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry. Deliver such items to Project site in time for installation.
- H. Joints: Make joints of uniform width. Where joint locations in exposed work are not indicated, arrange joints for the best visual effect. Fit exposed connections together to form hairline joints.
- I. Hazardous Materials: Use products, cleaners, and installation materials that are not considered hazardous.

# ENGINEERING u.c.

## TERREBONNE PARISH CONSOLIDATED GOVERNMENT NEW HOUMA POWER PLANT PHASE 1 – GENERATOR PROCUREMENT



#### TECHNICAL SPECIFICATIONS

### 3.6 PROGRESS CLEANING

- A. General: Clean Project site and work areas daily, including common areas. Coordinate progress cleaning for joint-use areas where more than one installer has worked. Enforce requirements strictly. Dispose of materials lawfully.
  - 1. Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
  - 2. Do not hold materials more than 7 days during normal weather or 3 days if the temperature is expected to rise above 80 deg F (27 deg C).
  - 3. Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
- B. Site: Maintain Project site free of waste materials and debris.
- C. Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
  - 1. Remove liquid spills promptly.
  - 2. Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
- D. Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
- E. Concealed Spaces: Remove debris from concealed spaces before enclosing the space.
- F. Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- G. Waste Disposal: Burying or burning waste materials on-site will not be permitted. Washing waste materials down sewers or into waterways will not be permitted.
- H. During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- I. Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- J. Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

# ENGINEERING u.c.

## TERREBONNE PARISH CONSOLIDATED GOVERNMENT NEW HOUMA POWER PLANT PHASE 1 – GENERATOR PROCUREMENT



### TECHNICAL SPECIFICATIONS

### 3.7 STARTING AND ADJUSTING

- A. Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.
- B. Adjust operating components for proper operation without binding. Adjust equipment for proper operation.
- C. Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
- D. Manufacturer's Field Service: If a factory-authorized service representative is required to inspect field-assembled components and equipment installation, comply with qualification requirements in Division 1 Section "Quality Requirements."

## 3.8 PROTECTION OF INSTALLED CONSTRUCTION

- A. Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.
- B. Comply with manufacturer's written instructions for temperature and relative humidity.

## 3.9 CORRECTION OF THE WORK

- A. Repair or remove and replace defective construction. Restore damaged substrates and finishes. Comply with requirements in Division 1 Section "Cutting and Patching."
  - 1. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.
- B. Restore permanent facilities used during construction to their specified condition.
- C. Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.
- D. Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.
- E. Remove and replace chipped, scratched, and broken glass or reflective surfaces.

END OF SECTION 017300



## TERREBONNE PARISH CONSOLIDATED GOVERNMENT NEW HOUMA POWER PLANT PHASE 1 – GENERATOR PROCUREMENT



#### TECHNICAL SPECIFICATIONS

## SECTION 017700 CLOSEOUT PROCEDURES

## PART 1 - GENERAL

### 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

### 1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:
  - 1. Inspection procedures.
  - 2. Warranties.
  - 3. Final cleaning.
- B. Related Sections include the following:
  - 1. Division 01 Section "Payment Procedures" for requirements for Applications for Payment for Substantial and Final Completion.
  - 2. Division 01 Section "Execution" for progress cleaning of Project site.
  - 3. Division 01 Section "Project Record Documents" for submitting Record Drawings, Record Specifications, and Record Product Data.
  - 4. Division 01 Section "Operation and Maintenance Data" for operation and maintenance manual requirements.
  - 5. Division 01 Section "Demonstration and Training" for requirements for instructing Owner's personnel.
  - 6. Divisions 02 through 33 Sections for specific closeout and special cleaning requirements for the Work in those Sections.

### 1.3 SUBSTANTIAL COMPLETION

- A. Preliminary Procedures: <u>Before requesting inspection for determining date of Substantial Completion, complete the following</u>. List items below that are incomplete in request.
  - 1. Prepare a list of items to be completed and corrected (punch list), the value of items on the list, and reasons why the Work is not complete.
  - 2. Advise Owner of pending insurance changeover requirements.
  - 3. Obtain and submit releases permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
  - 4. Deliver tools, spare parts, extra materials, and similar items to location designated by Owner. Label with manufacturer's name and model number where applicable.
  - 5. Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
  - 6. Complete startup testing of systems.
  - 7. Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.

SECTION 017700 – CLOSEOUT PROCEDURES
Page 1
(ISSUED FOR BID)

# ENGINEERING u.c.

## TERREBONNE PARISH CONSOLIDATED GOVERNMENT NEW HOUMA POWER PLANT PHASE 1 – GENERATOR PROCUREMENT



### TECHNICAL SPECIFICATIONS

- 8. Advise Owner of changeover in heat and other utilities.
- 9. Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
- 10. Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- B. Inspection: Submit a written request for inspection for Substantial Completion. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.
  - 1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
  - 2. Results of completed inspection will form the basis of requirements for Final Completion.

## 1.4 FINAL COMPLETION

- A. Preliminary Procedures: Before requesting final inspection for determining date of Final Completion, complete the following:
  - 1. Submit a final Application for Payment according to Division 01 Section "Payment Procedures."
  - Submit certified copy of Architect's Substantial Completion inspection list of items to be completed or corrected (punch list), endorsed and dated by Architect. The certified copy of the list shall state that each item has been completed or otherwise resolved for acceptance.
  - 3. Submit evidence of final, continuing insurance coverage complying with insurance requirements.
  - 4. Submit pest-control final inspection report and warranty.
  - 5. Instruct Owner's personnel in operation, adjustment, and maintenance of products, equipment, and systems.
  - 6. Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.
  - 7. Prepare and submit Project Record Documents, operation and maintenance manuals, damage or settlement surveys, property surveys, and similar final record information.
  - 8. Submit test/adjust/balance records.
  - 9. Complete final cleaning requirements, including touchup painting.
- B. Inspection: Submit a written request for final inspection for acceptance. On receipt of request, Architect will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.
  - 1. Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.

## TERREBONNE PARISH CONSOLIDATED GOVERNMENT NEW HOUMA POWER PLANT PHASE 1 – GENERATOR PROCUREMENT



#### TECHNICAL SPECIFICATIONS

## 1.5 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

- A. Preparation: Submit three copies of list. Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.
  - 1. Organize list of spaces in sequential order, starting with exterior areas first.
  - 2. Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.
  - 3. Include the following information at the top of each page:
    - a. Project name.
    - b. Date.
    - c. Name of Architect.
    - d. Name of Contractor.
    - e. Page number.

## 1.6 WARRANTIES

- A. Submittal Time: Submit written warranties on request of Architect for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated.
- B. Partial Occupancy: Submit properly executed warranties within 15 days of completion of designated portions of the Work that are completed and occupied or used by Owner during construction period by separate agreement with Contractor.
- C. Organize warranty documents into an orderly sequence based on the table of contents of the Project Manual.
  - 1. Bind warranties and bonds in heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch (215-by-280-mm) paper.
  - 2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
  - 3. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.
- D. Provide additional copies of each warranty to include in operation and maintenance manuals.

## PART 2 - PRODUCTS

## 2.1 MATERIALS

A. Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

SECTION 017700 – CLOSEOUT PROCEDURES
Page 3
(ISSUED FOR BID)

# ENGINEERING uc

## TERREBONNE PARISH CONSOLIDATED GOVERNMENT NEW HOUMA POWER PLANT PHASE 1 – GENERATOR PROCUREMENT



### TECHNICAL SPECIFICATIONS

#### PART 3 - EXECUTION

### 3.1 FINAL CLEANING

- A. General: Provide final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.
- B. Cleaning: Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to condition expected in an average commercial building cleaning and maintenance program. Comply with manufacturer's written instructions.
  - 1. Complete the following cleaning operations before requesting inspection for certification of Substantial Completion for entire Project or for a portion of Project:
    - a. Clean Project site, yard, and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste material, litter, and other foreign substances.
    - b. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
    - c. Rake grounds that are neither planted nor paved to a smooth, even-textured surface.
    - d. Remove tools, construction equipment, machinery, and surplus material from Project site.
    - e. Remove snow and ice to provide safe access to building.
    - f. Clean exposed exterior and interior hard-surfaced finishes to a dirt-free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
    - g. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, equipment vaults, manholes, attics, and similar spaces.
    - h. Sweep concrete floors broom clean in unoccupied spaces.
    - i. Vacuum carpet and similar soft surfaces, removing debris and excess nap; shampoo if visible soil or stains remain.
    - j. Clean transparent materials, including mirrors and glass in doors and windows. Remove glazing compounds and other noticeable, vision-obscuring materials. Replace chipped or broken glass and other damaged transparent materials. Polish mirrors and glass, taking care not to scratch surfaces.
    - k. Remove labels that are not permanent.
    - 1. Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or restoration.
      - 1) Do not paint over "UL" and similar labels, including mechanical and electrical nameplates.
    - m. Wipe surfaces of mechanical and electrical equipment and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
    - n. Replace parts subject to unusual operating conditions.

SECTION 017700 – CLOSEOUT PROCEDURES
Page 4
(ISSUED FOR BID)



## TERREBONNE PARISH CONSOLIDATED GOVERNMENT NEW HOUMA POWER PLANT PHASE 1 – GENERATOR PROCUREMENT



### TECHNICAL SPECIFICATIONS

- o. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
- p. Replace disposable air filters and clean permanent air filters. Clean exposed surfaces of diffusers, registers, and grills.
- q. Clean ducts, blowers, and coils if units were operated without filters during construction.
- r. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency. Replace burned-out bulbs, and those noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.
- s. Leave Project clean and ready for occupancy.
- C. Pest Control: Engage an experienced, licensed exterminator to make a final inspection and rid Project of rodents, insects, and other pests. Prepare a report.
- D. Comply with safety standards for cleaning. Do not burn waste materials. Do not bury debris or excess materials on Owner's property. Do not discharge volatile, harmful, or dangerous materials into drainage systems. Remove waste materials from Project site and dispose of lawfully.

END OF SECTION 017700

## Section 481126 RECIPROCATING ENGINE-GENERATOR AND EQUIPMENT

### PART 1 GENERAL

### 1.1 SUMMARY

## A. Section Includes:

1. Requirements for a natural gas fired, reciprocating engine-driven generator set (engine-generator set) and associated auxiliaries to be installed indoors as identified herein.

## B. Related Sections:

- 1. Section 011000 Summary
- 2. Section 013300 Submittal Procedures
- 3. Section 014000 Quality Requirements
- 4. Section 016000 Product Requirements
- 5. Section 017300 Execution Requirements
- 6. Section 017700 Closeout Requirements

## C. Attachments:

- 1. Attachment A Supplier Equipment List and Responsibility
- 2. Attachment B Technical Data Sheets for Reciprocating Engine and Generator Set
- 3. Attachment C Fuel Gas Analysis
- 4. Attachment D Submittals
- 5. Attachment E Control System Architectural Diagram
- 6. Attachment F General Arrangement (Preliminary)

## 1.2 SCOPE OF WORK

- A. Supplier shall design, manufacture, test and supply reciprocating engines and ancillary equipment. The engines will be installed at the Houma Generating Station located in Houma, Louisiana.
- B. Refer to Attachment A Supplier Equipment List and Responsibility for a complete list of items to be supplied.
- C. Reciprocating engines shall be designed for indoor service. The requirements of this Specification are the minimum for the equipment and are to be supplemented by the Supplier's own standards if more conservative.
- D. The Supplier shall comply with all of the requirements of this Specification. Approval of any drawings and/or test results shall in no way relieve the Supplier from these responsibilities.
- E. The work under this Specification shall include furnishing and delivering the reciprocating engines, their accessory equipment and providing miscellaneous materials and services complete as specified herein and in accordance with the Contract documents. The Supplier's scope shall include

all services, equipment, materials, and systems for the reciprocating engines and all appurtenances, including, but not limited to, support steel for the genset, the reciprocating engines and all appurtenances, exhaust expansion joints, equipment monitoring to control supplier furnished equipment, electrical accessory equipment, control accessory equipment and mechanical accessory equipment, as described herein.

- F. Delivery of all equipment shall be in accordance with the terms and conditions of this contract.
- G. The Supplier's design engineers shall attend a coordination meeting at a time and place selected by the Engineer to discuss matters relative to the execution of this Contract. The Supplier's design engineers shall attend additional design conferences as required by the Engineer thereafter to review and expedite the work. A weekly project status call with the Supplier shall be established at a mutually acceptable time during the coordination meeting.
- H. The Supplier's scope shall include engineering and management support for the following activities:
  - 1. Coordination of the design, supply, and delivery of the equipment.
  - 2. Technical advisory, startup and training services.
- I. The Supplier shall provide drawings and other engineering data, manufacturer's field services, tools, instruction manuals, spare parts lists, miscellaneous materials and services, and shall participate in design conferences, all as specified herein or as reasonably required to support the Owner, Engineer, Construction, and Startup.
- J. Equipment, materials, and accessories furnished shall be delivered to the jobsite where they will be received, unloaded, uncrated, stored and erected under a separate contract with the Owner. Deficiencies shall be sufficient cause to reject equipment. Unloading from carrier and storing will not constitute acceptance.
- K. Precision instrumented engine performance test in general accordance with ASME PTC 17 "Performance Test Code on Reciprocating Internal Combustion Engines" will be performed under a separate contract by Owner with all required correction curves to be provided by Supplier.
- L. The Supplier is responsible to provide startup and commissioning support for the reciprocating engines as required to support the unit commissioning schedule which will include as a minimum:
  - 1. First Startup
  - 2. Tuning
  - 3. Emissions Testing
  - 4. Performance Testing
- M. Miscellaneous materials and services not otherwise specifically called for shall be furnished by the Supplier in accordance with the following:
  - 1. All equipment bases or base plates required for mounting Supplier supplied equipment on Owner's foundations.
  - 2. All nuts, bolts, gaskets, special fasteners, backing rings, etc.,

between the Supplier's components and equipment furnished under these specifications.

- N. All piping integral to any equipment furnished under these specifications by the Supplier, except as otherwise specified.
- O. All necessary connections for the Owner's piping. Supplier shall provide any required special mating flanges.
- P. All necessary instrument, power and control wiring and raceway between skids will be by the Owner or other. The Supplier will provide all on-skid wiring and raceway to a common point or junction box.
- Q. OSHA compliant non-sparking coupling guards for all exposed rotating shafts and couplings.
- R. Leveling blocks (if required by the Supplier's design), soleplates (if required by the Supplier's design) and shims. Soleplates shall be carbon steel and shims shall be stainless steel, at a minimum.
- S. As-Built documentation for all equipment and systems, including all testing and tuning information required for commissioning.
- T. Detailed storage requirements and lubrication requirements (including frequencies) for use by the Owner.
- U. All special tools, including special lifting beams and lugs for offloading. Lifting beams and equipment for offloading will be returned to the Supplier.
- V. The use of all special tools required for erection of the equipment, exclusive of the maintenance tools specified to be furnished as described in Section 2.8 Erection tools shall remain the property of the Supplier and all shipping costs to and from the job site shall be at the Supplier's expense.
- W. All skid mounted motors shall be aligned and greased during assembly at the factory. The Owner will verify alignment and perform minor field adjustment as needed. As required by operating instruction, the Owner shall grease skid mounted motors following delivery.

### 1.3 REFERENCES

- A. Equipment provided under this contract shall be designed and manufactured according to latest edition, including addenda, of the following listed codes and standards in effect on the date of contract award:
  - 1. Federal, state, and local codes and regulations
  - 2. America Gas Association (AGA)
  - 3. American Gear Manufacturers Association (AGMA)
  - 4. American Institute of Steel Construction (AISC)
  - 5. American Iron and Steel Institute (AISI)
  - 6. American National Standards Institute (ANSI)
  - 7. American Petroleum Institute (API)
  - 8. American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE)
  - 9. American Society of Mechanical Engineers (ASME)

- 10. American Society of Testing and Materials (ASTM)
- 11. American Welding Society (AWS)
- 12. Certified Welding Inspectors (CWI)
- 13. Electronic Industry Association (EIA)
- 14. Federal Electric Reliability Council (FERC)
- 15. Gas Processors Society of America (GPSA)
- 16. International Building Code (IBC)
- 17. Institute of Electrical and Electronic Engineers (IEEE)
- 18. Insulated Power Cable Engineers Association (IPCEA)
- 19. International Society of Automation (ISA)
- 20. International Standards Organization (ISO)
- 21. National Electric Code (NEC)
- 22. National Electric Manufacturers Association (NEMA)
- 23. National Fire Protection Association (NFPA)
- 24. Occupational Safety and Health Administration (OSHA)
- 25. Pipe Fabrication Institute (PFI)
- 26. The Society for Protective Coatings (SSPC)
- 27. Uniform Building Code (UBC)
- 28. Underwriters' Laboratories, Inc. (UL)
- B. Equipment supplied from the United States shall conform to all referenced codes and standards.
- C. Equipment supplied from other countries than the United States shall be constructed according to standards equal to or better than the standards identified in Section 1.3A.
- D. Electrical equipment shall be designed and constructed in accordance to applicable NEMA, NEC, ANSI/IEEE, and UL Standards or according to standards equal to or better than the standards identified in Section 1.3A (unless otherwise noted).
- E. Generators shall be marked according to NEMA MG-1.
- F. When specific requirements are stated in this specification and conflict with those required by codes and standards listed herein, the more stringent requirement, as interpreted by the Owner / Engineer shall govern.

## 1.4 APPROVAL

- A. "Approval of Engineer" or "Engineering Approval" will mean approval by Engineer. Some approvals will require consultation between Engineer and Owner.
- B. The Supplier shall comply with all the requirements of these Specifications. Approval of any drawings or test results shall in no way relieve the Supplier from these responsibilities.

### 1.5 WORK BY OTHERS

- A. The following items shall be provided by the Owner and shall not be included in the Supplier's scope of work:
  - 1. Receiving, unloading, storing and field erection of all equipment, under the direction of the Supplier's technical service representative, excluding generator sets and related accessories, unless otherwise stated in this Contract.
  - 2. Foundations, foundation bolts, bolt sleeves and all embedments if required.
  - 3. Generator Step-Up Transformer.
  - 4. MV Switchgear.
  - 5. LV Switchgear.
  - 6. LV Motor Control Centers
  - 7. Air compressors/dryers
  - 8. Air receivers
  - 9. Oil storage tanks
  - 10. Urea Tanks
  - 11. Silencer
  - 12. Selective Catalytic Reduction (SCR)
  - 13. Remote radiators
  - 14. Auxiliary Transformers.
  - 15. Grouting materials and the placing thereof.
  - 16. Permanent electric wiring to connect equipment terminal boxes to the plant electrical system.
  - 17. Piping and cables for connection of skids or enclosures to other Owner supplied equipment.
  - 18. Initial fill of lubricating/power oil.
  - 19. Fuels for operation.
  - 20. Solvents and cleaning materials.
  - 21. Operating personnel.

## 1.6 DELIVERY, STORAGE AND HANDLING

- A. Delivery is defined in the terms and conditions portion of this contract.
- B. The equipment shall be adequately protected against the weather, (including seismic, wind, and dust) and mechanical damage during transit and storage for six months at the job site. All exposed machined surfaces shall clearly state any other storage requirements in a preservation manual submitted for Owner approval. A copy of Owner approved preservation manual, bill of materials, outline and erection drawings shall be included with shipment.
- C. All openings, threaded pieces, flange ends and weld ends shall be covered and protected with secured rigid covers.
- D. Handling instructions shall be affixed such that they are easily removable. Permanent markings on the skid equipment exteriors are not acceptable.

- E. Items removed for shipment shall be tagged for assembly and include the full item number. Such items shall be completely preserved for shipment. Bracing and removable shipment supports shall be painted yellow and identified for removal after erection.
- F. Each shipping box or crate shall have a clearly stenciled or printed, securely attached, weatherproof tag with the purchase order number and the identification of each item and part therein. This identification shall correspond to the detailed packing list. Boxes, crates and cartons shall be marked on two or more sides to assure visibility.
- G. All spare parts shall be shipped in a box or boxes containing only spare parts. These boxes shall be marked clearly with "Spare Parts" and the purchase order number. The packaging list shall include a list of all individual parts shipped.
- H. Each shipping box shall have the center of gravity clearly identified.
- I. Care shall be taken in loading and transporting to prevent damage to the equipment. The equipment will be examined prior to installation, and no piece shall be installed which is found to be defective. The Supplier shall immediately replace or repair the item at the Supplier's expense. Any damage shall be repaired as acceptable to the Owner.

## 1.7 OPERATIONS AND MAINTENANCE DATA

- A. Final drawings, instruction books, and manuals shall be submitted in accordance with Section 013300 Submittal Procedures. The instruction books shall include, but not be limited to:
  - 1. System descriptions.
  - 2. Complete service and repair manuals.
  - 3. Complete parts list with manufacturer part numbers and a recommended spare parts list.
  - 4. Bill of materials.

## 1.8 PROPOSAL REQUIREMENTS

- A. The following information shall be included with the bid proposal:
  - 1. Equipment outline and arrangement drawings, inclusive of equipment weight and CG's.
  - 2. Equipment ratings, including performance characteristics with efficiency curves, regulation characteristics, transient response characteristics and ambient temperature ranges.
  - 3. Power requirement for generator auxiliaries and estimated auxiliaries power consumption.
  - 4. A list of alarms and shutdown conditions which are provided in the standard package.
  - 5. Bill of materials of major components.
  - 6. Recommended OEM Spare parts list (priced).
- B. Any variances or exceptions which the Supplier has to this or referenced specifications shall be submitted to the Engineer prior to final bid submission. Refer to the Instructions to Bidders for specific details.

## 1.9 SPARE PARTS AND SPECIAL TOOLS

- A. Special tools and manufacturer's standard spare parts required for installation and normal operation and maintenance shall be provided.
- B. Two each of fuel, oil and air filter elements used in the engine-generator set shall be provided.

## 1.10 QUALITY REQUIREMENTS

- A. Refer to Section 014000 Quality Requirements.
- B. All equipment supplied under these Specifications shall be clearly identified with the original equipment manufacturer's name, model number and rating/capacity.
- C. Ensure products are in conformance with manufacturer's recommendations and requirements.
- D. Qualifications: The equipment shall be the product of a well-established manufacturer who is fully experienced, reputable and qualified in the manufacture of the particular equipment to be furnished. The equipment shall be designed and manufactured in accordance with the best practices and methods and shall comply with these Specifications as applicable. The Supplier shall certify that the components of the system, have been designed, fabricated, tested and documented in accordance with applicable ASME Codes or applicable DIN and ISO standards.
- E. The Owner and Engineer reserve the right to inspect the product and audit materials and processes at any of the Supplier's facilities that are performing work in support of these specifications. Products and services supplied under these Specifications are subject to the Owner and Engineer's final inspection, acceptance, and release.

## F. General

- 1. As a means of assuring that the performance of the work fulfills the requirements of the contract documents, the Supplier shall establish a quality assurance and quality control program.
- 2. Inspections and audits may be conducted by the Owner, the Engineer or both. The Owner's and Engineer's Representatives referred to in this Section may be direct employees of the Owner, of the Engineer, or may be any person or firm designated by the Owner or the Engineer.

## G. Inspections and Audits

1. The Supplier's work and related records shall be subject to inspection and audit by the Owner or the Engineer to assure compliance with applicable requirements. A request for corrective action may be issued by the Owner or the Engineer upon detection of a noncompliance with the requirements of the contract documents, the accepted quality assurance manual when a manual is required, and/or control procedures. The Supplier shall correct in a timely manner all identified deficiencies.

## H. Inspection and Rejection

1. All materials or equipment furnished and delivered under this Contract shall be subject to inspection. If any items or articles are

found not to meet the requirements of the specifications, the lot, or any faulty portion thereof, may be rejected. Before offering a lot for inspection, the Supplier shall, by his own inspection, eliminate any items which, in his opinion, are defective or do not meet the requirements of the contract documents. Materials or equipment that have been successfully inspected, tested and accepted by any party shall not relieve the Supplier of responsibility of later discovery of flaws or defects.

## I. Inspection Prior to Delivery

1. When equipment requirements provide for inspection at the Supplier's mill, factory, yard or warehouse, the conditions shall be as follows.

### a. Access

The Engineer and the Engineer's Representatives shall have the right to inspect the Supplier's and subcontractor's work in the course of manufacture and require such tests from time to time as they may deem advisable, providing no delay in production of acceptable materials or equipment is caused thereby. The Supplier shall furnish, at his own expense, reasonable facilities including tools and instruments for so doing and for obtaining such information as the Owner's or the Engineer's Representatives desire respecting the progress and manner of the work and the character of the materials used.

### b. Witness Tests

1) Mill or factory witness tests, if called for in the equipment requirements, shall be made in the presence of the Owner's or the Engineer's Representative. The Supplier shall bear all expense of such tests except the compensation and expense of the Owner's or Engineer's Representative. If the component or material to be inspected or tested is not ready at the time specified by the Supplier, any additional expense, including travel and lodging expenses, created by the delay will be charged to the Supplier.

## J. Receipt Inspection

1. Materials or equipment purchased under this Contract may be inspected at the specified receiving points and there accepted or rejected. All expense of initial receipt inspection will be borne by the Supplier. The expense of subsequent inspections due to failure of materials or equipment first offered shall be charged against the Supplier.

## K. Quality Assurance Program

1. As a means of assuring that the performance of the work fulfills the requirements of the contract documents, the Supplier shall

implement a quality assurance program for all the work. The program shall be capable of providing a quality assurance system which as a minimum conforms to ISO 9001-2015 and that design, purchasing, manufacturing, shipping, storage, testing, and examination of all equipment, materials and services will comply with the requirements of these contract documents.

- 2. The Supplier shall utilize a process control document that shall remain with the work during all fabrication activities. This document shall include a sequential listing of manufacturing, inspection, and testing operations and all Engineer identified witness points. The Supplier's personnel shall sign and date each activity as it is completed.
- 3. Before shipping the equipment, the Supplier shall notify the Engineer in writing of all non-compliances with the requirements of the contract documents that impact form, fit or function of the equipment that have been discovered during the manufacturing process and the corrections that were necessary to make the equipment comply with the contractual requirements.

## L. Quality Assurance Manuals

- 1. The quality assurance program shall be documented in a quality assurance manual. The form and format of the quality assurance manuals are at the discretion of the Supplier. The content of the quality assurance manual may be in the form of written descriptions of quality assurance policies and/or quality control procedures, methods, instructions, exhibits or other quality assurance method descriptions. A copy of the manual shall be submitted to the Engineer and the Owner on or before the coordination meeting for review and comment.
- 2. The Supplier's quality assurance manual shall describe the authority and responsibility of the persons in charge of the quality assurance program and inspection activities. The manual shall also include as a minimum, control procedures or methods to assure the following:
  - a. Design documents, drawings, specifications, quality assurance procedures, records, inspection procedures, and purchase documents are maintained current, accurate and under control.
  - b. Purchased materials, equipment and services conform to the requirements of these documents.
  - c. Adequate inspection of subcontracted work.
  - d. Quality of special processes such as welding, heat treating, hot forming and nondestructive testing.
  - e. Proper methods are employed for the qualification of personnel who are performing welding and nondestructive examinations.
- 3. As a final quality assurance measure, the Supplier shall submit to the Engineer a final, conformed, quality control document. This document shall contain the reports and results from all quality

assurance testing that was performed on the material and equipment during fabrication.

#### 1.11 TYPE AND ARRANGEMENT

- A. Each of the reciprocating engines shall be designed for installation in a non-hazardous location for a plant life of at least 30 years per this Specification.
- B. Ancillary equipment supplied by the engine manufacturer will be located indoor as identified in Attachment F General Arrangement.
- C. Equipment will be field installed at grade or on structural steel as required by the design, in accordance with Attachment A Supplier Equipment List and Responsibility Each reciprocating engine shall be identical in all respects.

#### 1.12 SITE CONDITIONS

- A. Refer to specification Section 011000 Summary
- B. Attachment F General Arrangement

#### PART 2 PRODUCTS

#### 2.1 GENERAL

A. Except for those items which are specifically stated as being provided by others, the Supplier shall provide all electrical, control, structural, and mechanical items described in this specification in order to provide a complete engine-generator set installation.

#### 2.2 RECIPROCATING ENGINE

A. Reciprocating Engine Requirements and Construction:

1. The engines shall be assembled in pre-engineered and pre-fabricated modules as specified. The engine shall be designed, at a minimum, to meet the following criteria:

Reciprocating Engine Design Criteria			
Туре	Spark-ignition reciprocating internal combustion engines		
Designed Load Range, Total	9.3 MW Nominal, 9 Engines		
Design Life	30 years		
Fuel	Natural Gas		
Number of Starts per Year	500 – 1,600 per Unit		
Number of Hours per Unit	0 – 8,200 per Year		
Capable of Daily Cycling	Yes		
Start time from warm standby	< 5 minutes		
Design Ambient Temperature Range, °F Engine Inlet/Enclosures	3°F to 130°F		
Fuel Gas Temperature	Minimum 25°F above dew point Maximum 122°F		
Fuel Gas Pressure Min./Max.	138/224 psig		
NO <sub>x</sub> Reduction Technology	Emissions Control System (Selective Catalytic Reduction)		
CO Reduction Technology	Emissions Control System (Oxidation Catalyst)		

Note: Design life is based on adherence to the Supplier's specified inspections, maintenance schedules and wear part replacement intervals.

#### B. Arrangement

1. A preliminary arrangement drawing shall show the proposed location of the Engines relative to all auxiliary equipment furnished. Sufficient space between the Engines and auxiliary equipment, to allow maintenance functions shall be provided as indicated. Auxiliary packages shall be located such that all components are accessible for maintenance. A final, certified unit arrangement drawing shall be submitted in accordance with the Document Submittal Schedule and the requirements of Section 2.12.

#### C. Testing and Inspection

- 1. Copies of the Supplier's quality programs, test descriptions, and preshipment test descriptions shall be available in advance of the start of the fabrication.
- 2. Hydrostatic All pressure containing parts and piping shall be hydrostatically tested to 1.5 times the design pressure of the component.
- 3. Drivetrain/Rotor Integrity Supplier shall conduct standard inspections and non-destructive examinations of the Reciprocating Engine and Generator drive train/rotors to assure their integrity.
- 4. Overspeed The engine shaft shall be tested at a minimum speed that is 5% greater than the overspeed trip setpoint.
- 5. Balance The rotating components shall be precision balanced prior to assembly into the engine/generator stator.
- 6. Full-Speed testing A full speed operation test is required. The engine lubricating oil system shall be hot flushed prior to the test. All control and safety devices shall be checked during this test, or a separate simulator test of the control system shall be performed.
- 7. Control System Control system components, panels, and modules shall be inspected and tested after final shop assembly.
- 8. Auxiliary Equipment Checkout Tests The Supplier shall perform auxiliary equipment checkout tests per their standard procedures to ensure auxiliary equipment and accessories are operating properly before shipping.

#### 2.3 AUXILIARY SYSTEM

#### A. Fuel Gas System

- 1. Supplier shall provide all strainers, final filter, regulating units, piping, valves, instrumentation, control system, and all other equipment and appurtenances as required for a complete and fully operational fuel gas system. Supplier shall provide a skid mounted system.
- 2. Refer to Attachment A Supplier Equipment List and Responsibility for a complete breakdown of the scope of supply.

#### 2.4 GENERATOR

#### A. Codes:

1. All electrical equipment and systems furnished shall meet the requirements of ANSI C2, National Electrical Safety Code, all applicable NEMA and other ANSI standards.

#### B. Generator Design and Construction

1. The generator(s) shall be a 3-phase alternating current salient pole synchronous machine. All generator winding shall be copper. The design shall conform to the applicable standards for synchronous generators, salient-pole type.

Generator Design Criteria		
Minimum Rated MVA Maximum engine MW output at rate power factor		
Rated Power Factor	0.80	
Rated Voltage	13.8 kV	
Rated Frequency	60 Hz	

#### a. Machine Insulation:

1) The insulation of the armature windings, field windings, and collectors shall be Class F. The temperature rises and total temperatures shall not exceed those permitted for Class B.

#### b. Short-Circuit Requirements:

1) The machine shall be designed to withstand, without failure, a short circuit of any kind at its terminals while operating at rated load.

#### c. Short-Circuit Ratio:

1) The calculated value of short-circuit ratio at rated voltage and rated stator current shall not be less than the specified value. (This value will be measured on first generator only).

#### d. Lubricating Supply System:

1) The generator shall include a bearing lubrication system.

#### e. Temperature Detectors:

1) Embedded platinum resistance temperature

detectors with dual elements shall be furnished as specified for determining the generator stator winding operating temperatures.

#### f. Generator Electrical Isolation:

1) Maintenance on the high voltage components associated with any generator must be possible while starting or running any other generator. The isolation required must be possible using only installed, lockable, accessible without temporary equipment, switches. This isolation shall eliminate energy sources to any high voltage components connected to or contained within any enclosure associated with the generator undergoing maintenance.

#### g. Generator Electrical Tests:

- 1) Manufacturer's standard methods and applicable standards, including, but not limited to:
  - a) Measurement of cold resistance of armature and field winding.
  - b) Insulation resistance measurement of armature and field winding.
  - c) Armature dielectric test.
  - d) Field dielectric test.
  - e) Calibration test for all temperature sensing elements.
  - f) Dielectric test of each inductor winding.
  - g) High potential test of all excitation circuits (excitation cubicle).
  - h) Rectifier voltage drop at reduced current.
  - i) Calibration test of all temperature sensing elements.
  - j) Operational check on all excitation system components.

#### 2) Transmittal of Test Results

a) All intermediate test results shall be transmitted to the Engineer after the completion of the test. Final test reports shall be completed and transmitted to the Engineer no later than two weeks after the completion of the test cycle.

#### h. Generator Mechanical Testing

1) Manufacturer's standard methods and applicable

standards, including, but not limited to

- a) Rotor overspeed at 120 percent of rated speed.
- b) Rotor mechanical static and dynamic balancing.

#### 2) Transmittal of Test Results

a) All intermediate test results shall be transmitted to the Engineer after the completion of the test. Final test reports shall be completed and transmitted to the Engineer no later than two weeks after the completion of the test cycle.

#### C. Generator Terminal Accessories:

1. The generator shall be equipped with the following accessories to the indicated standard.

#### a. Current Transformers:

Current Transformers				
Location	Quantity	Secondary	Accuracy	
		Rating	Class	
Generator Neutral side relaying CT	2 sets of 3	5A	C200	
Generator Neutral side metering CT	Set of 3	5A	0.3-B1.8	
Generator Neutral Side Excitation CT	Set of 3	5A	C200	
Generator Neutral Side Relaying CT	Set of 3	5A	C10	

#### b. Generator Neutral:

- 1) One complete set of material and accessories necessary to electrically close the generator neutral at the generator neutral bushings shall be furnished.
- c. Neutral Grounding Assembly:
  - 1) Located by generator
  - 2) Supplier's standard.
- d. Generator Cooling System
  - 1) The Seller's standard cooling system shall be provided for safe and reliable operation of the generator stator and rotor. The cooling system shall be complete with all equipment, materials, and accessories. A complete scope document and technical description of the system offered to meet

the requirements of these specifications shall be submitted with the proposal.

### D. Excitation System

1. A generator excitation system shall be furnished to support the specified requirements listed in this specification. The excitation system shall be complete with all equipment, material and accessories. Technical description of the system offered to meet these requirements shall be submitted to the Engineer. It is not the intent of this specification to completely specify the details of the design and construction of the equipment. The excitation system and its accessories shall be furnished as specified and in accordance with the manufacturer's standard practices. The equipment offered by the Seller shall have a proven record of high availability and reliability; minimal maintenance; ease of servicing; accurate, fast, and responsive control; long life; and safe operation at the service conditions. The excitation system shall be sized to provide adequate field voltage and current to continuously produce generator rated MVA at the maximum rated generator output voltage. Sufficient redundancy shall be provided to allow for device failure without compromising the required turbine generator availability. The excitation system shall withstand, without damage, any faults or abnormal operation of the synchronous machine. The excitation system shall be supplied with two sets of excitation system control system communication, diagnostics, and programming software.

#### E. Generator Control and Monitoring Panel:

- 1. The Seller shall provide a completely enclosed sheet metal generator control panel for each generator. The panel shall contain all the devices required for control and monitoring of the generator and auxiliary equipment, including mounting and wiring of the devices to terminal blocks.
- 2. Control switches shall be of the rotary operated type with enclosed silver-plated to silver-plated contacts and be provided with easily removable protective covers. Switches not arranged for spring return shall be provided with a positive means for maintaining contact position. Handles of different shapes shall be provided as an aide in switch identifications. Unless the controls are microprocessor based, the control switches for electrically operated circuit breakers shall be of the spring-return type, with pistol grip handles and green and red targets to indicate the after-trip and after-close positions. Control switch slip contacts shall be provided as required.
- 3. One set of generator meters and transducers shall be provided. All meters and transducers necessary for the proper operation of the generator and exciter shall be provided. Meters and transducers shall include, but not be limited to, the following:
  - a. Amp transducer for engine control.
  - b. Watt transducer for engine control.

- c. VAR transducer for engine control.
- d. Watt transducer, 4-20 mA, for the Engineer's use.
- e. VAR transducer, 4-20 mA, for the Engineer's use.
- f. Voltage transducer, 4-20 mA, for the Engineer's use.
- g. Amp transducer, 4-20 mA, for the Engineer's use.
- h. Wattmeter.
- i. Varmeter.
- j. Watt-hour meter with pulse output for the Engineer's use.
- k. Amp switch and ammeter.
- 1. Frequency meters.
- m. Generator voltmeter and voltmeter switch.
- n. Bus voltmeter and voltmeter switch.
- o. AC exciter field amps.
- p. AC exciter field volts.
- 4. All resistors, reactors, autotransformers, insulation current and potential transformers and other auxiliaries required to complete the metering equipment shall be furnished.
- 5. A single multi-function digital multi-meter in lieu of separate meters is acceptable provided that all of the above functions are provided by the multi-meter. A metering package that is an electronic package shall make available (through open interface architecture, e.g., OPC) all excitation and voltage regulation parameters for continuous data collection and determination of system health.

#### F. Compartments:

1. All equipment compartments shall be dust-tight and drip-proof, and all outdoor compartment(s) shall be weather-proof. All enclosures shall be furnished with space heaters.

#### 2.5 ENGINE CONTROL SYSTEM

- A. Each engine shall have an independent engine control system with each combustion process controlled separately. Each control system shall be a complete, self-contained system designed for operation of the Reciprocating Engine, Generator, and auxiliaries locally and, capable of remote starting and loading as commanded by a MW signal and engine selection via operator in main control room. The control room is located on the 2<sup>nd</sup> floor Houma Power Plant approximately 350 feet from the proposed reciprocating engine installation location.
- B. All centralized monitoring, control, and operation will be done from the Supplier's provided engine control system from the main control room. Engine control cabinets to be located in the medium voltage switchgear room.

- Supplier to make provisions in the design for common displays and cabinet alarms in the existing main control room.
- C. The control system shall be the Supplier's standard except as modified by the requirements stated herein. Refer to Attachment E Control System Architecture Diagram.
- D. Supplier shall provide two (2) remote operator interfaces for installation in the main control room. The interfaces shall be as follows. The Supplier shall interface to wall mounted LCD screens for control of his equipment. The workstations should be expandable to drive up to four (4) screen per workstation. Operator interface shall be provided by a server block, LCD screens, keyboard, and mouse. In addition to soft LCD control of the following, the operator interface shall also include any switches, push buttons, indicating lights, and indicating meters required to provide single action access for frequently executed operator functions. The remote operator interfaces shall provide all the functions as a local operator interface. The remote operator stations shall include multi-unit capability such that it can control all Reciprocating Engine Generator systems.
- E. Supplier to also supply a historian workstation complete with 20" monitor, keyboard, and mouse to record and trend any necessary information and/or alarm points. Supplier's historian shall be installed in the main control room.
- F. Supplier to provide one (1) laptop personal computer as the engineering workstation-based programming unit with programming, documentation, and communication interface software shall be furnished. The programming unit shall include the current state-of-the art hardware platform (drives, ports, processor/bus, RAM, etc.) available at the time of award, all required interface boards and cables, and communications devices.
- G. Supplier is responsible for all network communications hardware including, but not limited to, communication modules, switches, and end connections and software between their control system and any other Supplier provided PLC's or control system.
- H. The Supplier shall provide a data interface I/O list. The list shall indicate the signal name, address, on/off status for digital points, engineering units and engineering unit range for analog points, and digital data word format and range for each point. The list shall provide all necessary for decoding and engineering unit conversion of each point. The list shall be provided in Excel file format that is acceptable to the Owner.
- I. The Supplier shall provide drawings or printouts showing recommended graphic displays indicating the required control and monitoring functions for its equipment.
- J. The Supplier shall provide written operating instructions and logic diagrams for its equipment and designed to allow the Owner to verify the operation of the graphic displays.
- K. The Supplier shall also provide drawings showing all power, communications, grounding, and I/O wiring. The drawings shall indicate

- the physical location of the all equipment and show complete identification of all modules in all racks.
- L. The Owner shall have the right to observe the factory testing of Supplier's Engine Generator Unit(s). The factory testing program shall generally include the following; Starting system function checkout, Control System function checkout and software demonstration, including LCD graphics, and pre-shipment inspection. Factory testing may occur at multiple facilities on different dates.

#### 2.6 SKIDS

- A. Steel skids shall be carbon steel at a minimum.
- B. Steel skids shall be coated in accordance with manufacturer's recommendations.

#### 2.7 WELDING SPECIFICATIONS

- A. All structural steel welding shall be in accordance with the latest edition of AWS (D1.1 and D1.4) and the additional requirements detailed herein. Refer to Section 1.3 for equipment supplied from outside the United States.
- B. Pressure piping welding shall be in accordance with the latest edition of ASME Standard B31.1, Power Piping and the additional requirements detailed herein. Welder and welding procedure qualifications shall be in accordance with ASME Section IX. Refer to Section 1.3 for equipment supplied from outside the United States.
- C. Pressure vessel welding shall be in accordance with the latest editions of ASME Section VIII and IX and the additional requirements detailed herein. Refer to Section 1.3 for equipment supplied from outside the United States.

#### 2.8 SPECIAL TOOLS AND SPARE PARTS

#### A. Special Tools:

1. The Supplier shall furnish, and ship one set of all special tools required for off-loading, erection and dismantling of the equipment in accordance with the Contract. The tools shall be shipped in accordance with Section 2.11. One set of special tools for maintenance shall be furnished in accordance with the Contract.

#### B. Special Maintenance Tools

- 1. One new set of special tools required for maintenance of the equipment shall be provided by Supplier.
- 2. Special maintenance tools for each piece of equipment shall be shipped separately in accordance with Section 2.11 and labeled "MAINTENANCE TOOLS FOR RECIPROCATING ENGINE GENERATOR"

#### C. Spare Parts

1. One complete set of startup spare parts will be provided for each unit. Each set shall include all items that may normally be required

during the course of engine erection, commissioning, and testing. Such spare parts shall include the following as a minimum for each unit (as applicable):

- a. Gaskets for lube oil filter.
- b. Fuel gas filters.
- c. Lube oil filters.
- d. Hydraulic/control oil filters.
- e. Gasket for fuel gas nozzle and branch pipe.
- f. Control oil line gasket for flashing.
- g. Gasket for fuel gas filter.
- h. Control relay: Ten pieces.
- 2. Supplier shall provide a spare parts list for recommended overhauls and five-year maintenance.
- 3. Spare parts shall be shipped in heavily constructed wooden boxes or other means necessary to prevent damage during shipment. Separate boxes shall be used for the spare parts for each major piece of equipment. Where applicable, boxes shall be designed and constructed for return shipment of damaged or worn components for repair.
- 4. Spare parts shall be protected from damage due to moisture and dirt accumulation during an extended storage period of one year by use of special coatings, airtight membranes, bags of desiccant or other means acceptable to the Engineer. Each Box shall be marked with the large painted legend as follows:
  - a. CITY OF HOUMA HOUMA POWER PLANT (as applicable).
  - b. SPARE PARTS FOR RECIPROCATING ENGINE GENERATOR.
  - c. DO NOT OPEN EXCEPT WITH OWNER'S PERMISSION

#### 2.9 ASSEMBLY / COMMISSIONING AND START-UP

- A. The Supplier shall furnish the services of one or more manufacturer's Field Service Representatives to assist the Owner with installation assembly, startup, and commissioning of all Supplier furnished equipment.
- B. Unit Commissioning
  - 1. Following the erection of the reciprocating engine and auxiliaries, a systematic, comprehensive commissioning program will be completed by the Supplier. The Supplier shall submit a comprehensive commissioning manual for approval by the Owner which shall include all necessary commissioning procedures, instructions, drawings and test forms. The commissioning manual

shall be specifically prepared for the furnished engines.

- 2. Supplier shall complete all commissioning activities per the approved commissioning manual and perform all verification tests necessary to ensure all systems are functioning properly.
- 3. At the completion of initial commissioning activities, the Supplier shall certify that each furnished engine is prepared for start-up.
- C. The engine-generator set Supplier shall provide factory trained technicians to check out the completed installation and to perform startup including the following:
  - 1. Verification that the engine starts within the specified time.
  - 2. Testing of all automatic start and shutdown scenarios.
  - 3. Setting of the no load frequency and voltage.

#### 2.10 PERFORMANCE TESTS

#### A. Final Commissioning

- 1. Final commissioning tests shall be conducted by the Supplier. The Supplier shall provide the standard data and records for the commissioning tests. The Owner shall furnish the operators, startup power and fuel. Such tests shall be binding on the Supplier to determine compliance with the Performance Guarantees and Emissions. All measurements shall be with calibrated engine instruments. Data shall be recorded using the computer system, however the Owner reserves the right to manually measure and record data as deemed appropriate.
- 2. The final commissioning tests for each engine are anticipated to include, but not be limited to, the following in accordance with Section 2.9:
  - a. Starting System Functional Checkout
  - b. Starting Reliability Ten (10) consecutive successful starts from various initial conditions (both cold and hot starts), from ignition to rated speed on fuel gas.
  - c. Startup Sequence Time Demonstration of the startup time for normal start cycles from warm standby to base load.
  - d. Load Change Rate.
  - e. Engine Trip Due to Over-speed.
  - f. Minimum Stable Load Operation.
  - g. No variance in engine load at 50 percent load.
- 3. The Supplier shall, at the Supplier's expense, make correction and modifications as necessary to achieve the guaranteed capabilities, as stated in Section 2.10.E, and as specified above. Any required corrections or modifications and subsequent re-testing shall precede the performance tests.

B. As applicable, the Supplier's commissioning records shall satisfy all internal quality assurance/control requirements of the Supplier. Final signoff by the Supplier's representative shall include the certification that the engine is ready to begin emissions and performance testing.

#### C. Emissions Tests

Note: This technical specification is specific to the engine generator and auxiliary components only however a NOx selective catalyst reduction and CO Oxidation catalyst control system will be furnished and installed under a separate bid project. Owner/Engineer will coordinate with Supplier for selection and specification of emissions control systems to meet project emissions requirements.

- 1. The purpose of the emissions tests will be to demonstrate that the engine(s) meet the Supplier's Exhaust Emissions Guarantee. The emissions tests will also serve as compliance tests to demonstrate the engine(s) comply with all regulated emissions limits contained in the Reciprocating Engine guarantee. The emissions tests shall be binding on the Supplier to determine compliance with guarantees.
- 2. Stack emissions tests shall be conducted on each engine following the completion of the final commissioning tests. The emissions tests will be conducted by an independent testing contractor with the assistance of the Supplier, in accordance with test procedures to be developed by the Engineer and mutually agreed upon. The Engineer will witness the test and will furnish operators, startup power and fuel. The Government Authority may witness the tests.
- 3. The Owner shall pay for all costs of the independent testing contractor, including all costs of mobilization and the costs of all services performed while the Supplier is performing its full and partload tuning, up to and including the date on which the Supplier provides written notice to the Engineer that the unit(s) is ready for Performance Tests. The Owner shall pay all costs of the independent contractor from the day after it receives such written notice up through and including the date of demobilization of the independent testing contractor. If the Performance Tests are delayed due to the fault of the Supplier, the Supplier shall be responsible for the costs of the independent testing contractor during the period of such delay.
- 4. Test instrumentation and measurement methods shall be in accordance with the appropriate US EPA method and as determined by LDEQ permit for each specified pollutant. Measured data and calculated results will be deemed absolute values for determining engine performance and compliance with guarantees. Consideration of testing tolerances or measurement uncertainties shall not be permissible.
- 5. The Supplier shall, at the Supplier's expense, make engine repairs and modifications as necessary to bring all emission levels into compliance with the emissions guarantees. Subsequent to those

modifications, the emissions tests shall be repeated at the Supplier's expense except for the Owner furnished energy, fuel and normal operating personnel. Any required repairs and modifications shall be completed in a manner that is convenient to the Owner. The schedule for repairs and modifications shall be subject to review and approval by the Owner, and such corrective measures shall be completed as soon as practical following the initial emissions test.

#### D. Performance Data and Performance Curves:

1. One copy of the following certified performance curves shall be submitted:

	Engine Performance Data Requirement				
Fuel	Ambient Temperature, °F	Relative Humidity, Percent	Percent Load		
Gas	3	100	100/75/50 and minimum load in full emission compliance		
Gas	66	75	100/75/50 and minimum load in full emission compliance		
Gas	104	30	100/75/50 and minimum load in full emission compliance		
Gas	104	90	100/75/50 and minimum load in full emission compliance		

#### E. Guarantee Performance Cases:

- 1. Guarantee performance condition based on the following table:
- 2. Standard Operation
  - a. The following table defines the Basis of Guarantees, Guarantee Basis, and Guarantee Conditions. The Supplier's Performance Guarantees are based upon these values:

Parameter	Guarantee Condition Value
Operating Mode	Base Load

Ambient Dry Bulb Temperature	97°F
Ambient Wet Bulb	77°F
Ambient Barometric Pressure	14.68 psia
Fuel	Natural Gas, as specified in Attachment C  – Fuel Gas Analysis
Fuel Temperature	Minimum 25°F above dew point Maximum 122°F
Fuel Supply Pressure at Supplier's Connection Point	225 psig
Engine Condition	New and Clean
Grid Frequency	60 Hz
Generator Power Factor	0.85

- 3. The following information shall be provided for the Cases identified above as applicable.
  - a. Reciprocating Engine performance curves including output and heat rate as a function of ambient temperature and fuel methane content. Attachment C Fuel Gas analysis shall be used as the basis for one of these curves.
  - b. Estimated output and heat rate recoverable degradation versus fired hours curves from initial startup.
  - c. Curves showing recovery effects of turbocharger washing for output and heat rate.
  - d. Generator saturation and synchronous impedance curves, including:
    - 1) Zero and rated power factor current saturation curves; and
    - 2) No load saturation curves.
  - e. Generator reactive capability versus kilowatt load (or megawatt, MW) curves

- f. Generator power factor correction curves.
- g. Generator loss curve and excitation system power requirements curve indicating total electrical losses for generation capability for rated and unity power factors. Curve shall include the total Reciprocating Engine mechanical or fixed losses.
- h. Reactive power capability versus real power capability curve.
- i. Generator Vee curves.
- j. Generator allowable negative sequence versus time curve.
- k. Generator current decrement curves for 3-phase, line-to-line and line-to-neutral short circuit.
- l. Generator current decrement curves for 3-phase, line-to-line and line-to-neutral short-circuit conditions at the generator terminals.
- m. Generator current transformer secondary excitation characteristic curve.
- n. Generator current transformer ratio correction factor curve.
- o. Generator current transformer phase angle correction factor curves.
- p. Generator current transformer correction factor curves.

#### F. Test and Inspection Data:

1. Test and inspection reports shall be available for the Engineer's review at the Supplier's facility, or copies provided upon request, for all tests and inspections conducted on the specified equipment. The purpose of the inspection and tests performed by the Supplier during the commissioning and performance testing of the equipment is to demonstrate that the Supplier's standards have been satisfied. The Supplier shall maintain records of inspections and tests performed.

#### 2.11 SHIPPING AND RECEIVING

- A. The Owner and Engineer reserve the right to inspect the equipment prior to shipment.
- B. All separately packaged accessory items and parts shall be shipped with or before the equipment to the maximum extent possible. Containers for separately packaged items shall be marked so they are identified with the main equipment. A master packing slip, covering all accessory items for a given piece of equipment which are shipped in separate containers, shall be attached to the first package to be received for that equipment.
- C. The Owner will accept direct shipments of Supplier-furnished materials and equipment from subcontractors. Whenever possible, the Supplier shall assemble shipping units composed of those items of materials and

equipment which he obtains from subcontractors. Shipping unit assembly shall be at one of the Supplier's regular business addresses. Each item shall be tagged with its full individual identification used on the drawings for this Contract and shipped as part of a shipping unit to the construction site. All shipments from the Supplier shall state in the proposal the typical quantity of materials and equipment assembled as a shipping unit, the proposed tagging system for individual items, and the assembly location for shipping units.

- D. Equipment shall be shipped in heavily constructed wooden boxes or other means suitable to prevent damage during shipment. Separate boxes shall be used for the components and accessories for each major piece of equipment. A weatherproofed itemized list of the contents shall be attached to the outside of each box. A similar list shall be inside each box.
- E. Where applicable, boxes shall be designed and constructed for return shipment of damaged or worn components for repair. Each box shall be marked with large painted legend as follows:
  - 1. HOUMA POWER PLANT CITY OF HOUMA
  - 2. EQUIPMENT, COMPONENTS AND ACCESSORIES
  - 3. FOR RECIPROCATING ENGINE ERECTION CONTRACTOR
  - 4. DO NOT OPEN EXCEPT WITH OWNER'S PERMISSION
- F. The Supplier shall mount and ship impact recorders on any container transporting equipment subject to misalignment, miscalibration, damage to movement or damage due to impact during shipment. The impact recorders shall be mounted at the factory to provide a permanent record of the magnitude of axial, transverse and vertical forces to which the equipment will be subjected while in transit. The custody of the impact recorders upon arrival at the plant site shall be the responsibility of the manufacturer's Technical Service Representative. The recorder impact charts shall be delivered to the Owner or Engineer and shall become part of the furnished equipment.
- G. All manufacturing waste shall be removed from the interior of each component. All loose mill scale, rust, oil, grease, chalk, crayon, paint marks and other deleterious material shall be removed from the interior and exterior surfaces. At time of shipment, product shall be clean inside and out.
- H. All equipment shall be boxed, crated or otherwise suitably protected during shipment, handling and storage. Equipment having antifriction or sleeve bearings shall be protected by weather tight enclosures.
- I. Coated surfaces shall be protected against impact abrasion, discoloration and other damages. Surfaces which are damaged shall be repaired. Equipment shall be internally flushed, cleaned and protected prior to preparation for shipment.
- J. Electrical equipment, controls and insulations shall be protected against moisture and water damage. All external gasket surfaces and flange faces, couplings, rotating equipment shafts, bearings and like items shall be thoroughly cleaned, coated with rust-preventive compound, and protected

with suitable wood, metal or other substantial type covering to ensure their full protection. All exposed threaded parts shall be greased and protected with metallic or other substantial type protectors.

- K. All piping, tubing, and conduit connections on equipment and other openings shall be closed with rough usage covers or plugs. Female threaded openings shall be closed with forged steel plugs. The closures shall be taped to seal the interior of the equipment. Open ends of piping, tubing, and conduit shall be sealed and taped.
- L. Returnable containers, lifting beams, and special shipping devices shall be returned by the manufacturer's field representative at the Supplier's expense.

#### 2.12 DOCUMENTATION

#### A. Submittal Schedule

- 1. The Supplier shall submit the Document Submittal Schedule to the Engineer as part of its proposal for review.
- 2. The Supplier will be required to submit drawings and engineering data in accordance with the Document Submittal Schedule, as mutually agreed, and requirements specified in this Section to assure compliance with the overall construction and operating schedule.
- 3. All engineering data shall be identified with the equipment or structure it represents by use of the nomenclature established by the contract documents. Equipment drawings shall have the Engineer's equipment name and number clearly displayed.
- 4. Drawing shall be in sufficient detail to indicate the kind, size, arrangement, and weights of each component, breakdown for shipment, and operation of component materials and devices; the external connection, anchorages and supports required; the dimensions needed for installation and correlation with other materials and equipment; and the information specifically requested in the Document Submittal Schedule.
- 5. Drawings shall be complete and certified by the Supplier as to the compliance of the information contained thereon with the requirements of these specifications. All design calculations and drawings shall be signed and sealed in their entirety as required by applicable codes.
- 6. Drawings shall include title block entries which clearly indicate that the drawing is certified. Drawings will be reviewed by the Engineer and processed as specified herein.
- 7. If changes are made to the equipment at the project site, revised drawings indicating the changes made shall be prepared by the Supplier and transmitted.
- 8. Each drawing submitted shall be clearly marked with the name of the project, the Reciprocating Engine designation, the specification title, the specification number, the project equipment or structure

nomenclature, the Supplier's name, and the Engineer's drawing number (after it is assigned upon initial submittal of the drawing). Catalog pages are not acceptable. If standard drawings are submitted, the applicable equipment and devices furnished shall be clearly marked.

9. All drawings and data furnished by the Supplier may be used by the Engineer in connection with the design, installation and erection of the equipment furnished under this Contract. In addition, the drawings may be used in support of future maintenance, operations, or modifications of the facility and internal Owner studies. Such drawings and data may be used for no other purposes without the express prior written consent of the Supplier; such consent shall not be unreasonably withheld.

#### 10. Wiring Diagrams

- a. I&C input required connection and interconnection wiring diagrams furnished by the Supplier showing device termination and conductor identification.
- b. Wiring diagrams shall be prepared on sheets approximately 24 inches by 36 inches, when possible. Where interconnecting wiring from different items of equipment or sectional wiring diagrams of the same item of equipment appear on different wiring diagram sheets, all interconnections shall be clearly identified. Where sectional wiring diagrams are required for a single item of equipment, such as a relay panel or control panel, that section of the panel which is represented by each individual wiring diagram sheet shall be keyed on that sheet in a manner acceptable to the Engineer.
- c. Information indicated on the Supplier's drawings shall include wiring of the individual panel items as they actually will appear in the panel, contact arrangements of switches and internal wiring of relays and instruments.
- d. Elementary diagrams shall be cross-referenced to terminal markings on the connection and interconnection diagrams, but need not indicate complete details of circuits external to the panels. Each item of panel mounted equipment indicated on the diagrams shall be identified by item number and name.
- 11. A document index listing all drawings and data to be submitted shall be included with the initial document submittal. The document index shall be resubmitted as required to indicate revisions to the list. The list shall include the document number and title, if known, or the general document category (e.g., piping and instrument diagrams) for each item of equipment.

#### 12. Service Manuals

- a. The Supplier's standard Service Manuals shall be furnished as specified herein, in Section 017300 Execution Requirements, and in the Document Submittal Schedule. The Service Manuals shall include the Supplier's Reciprocating Engine Installation and Commissioning Manual, Maintenance and System Description Manual, and Part Manual. Service manuals shall be project specific.
- b. Reciprocating Engine Installation and Commissioning Manual
  - This volume of the Service Manuals shall contain site specific information on engine-generator installation and commissioning. Normal Reciprocating Engine installation and commissioning sequences shall be described.
  - 2) Special notes and cautionary and warning statements shall be included and be highlighted throughout the installation and commissioning manual to enable easy recognition of special procedures and techniques that must be followed to ensure correctness and safety for equipment and personnel.
- c. Maintenance and System Description Manual
  - This volume of the Service Manuals shall provide information for inspection and maintenance of the engine, its accessories and auxiliary systems over the life of the equipment. Recommended procedures for scheduling inspections and planning maintenance outages, including recommended spares, tools and equipment shall be provided. Standard practices for disassembly, component inspection, and reassembly shall be described in detail. Copies of any Supplier standard reporting forms shall be provided.

#### d. Part Manual

1) This volume of the Service Manuals shall provide all necessary engine accessories and auxiliary system drawings and bills of material to allow ordering of replacement and expendable materials, parts, components, and assemblies for all routine inspection and maintenance activities. The Parts Manual shall be project specific.

#### 13. Correspondence

a. See Section 013300 – Submittal Procedures.

## END OF SECTION

# Section 481126 RECIPROCATING ENGINE-GENERATOR AND EQUIPMENT

# ATTACHMENT A SUPPLIER EQUIPMENT LIST AND RESPONSIBILITY

1 - R	eciprocating Internal Combustion Engine	
Item	Description	Quantity
1.0	Reciprocating Internal Combustion Engine	
1.1	Reciprocating Internal Combustion Engine, including all Engine Auxiliaries	9
1.2	Flexible Connections between the Engine and external Piping and Ducts	9
1.3	Crankcase Ventilation System	9
1.4	Crankcase Ventilation Lube Oil Mist Eliminator	9
1.5	Vibration Isolation and Mounting Accessories	9
1.6	Engine Starting System	9
1.7	Engine Base Frame (including sets of steel springs and fastening hardware)	9
1.8	Installation of Engine/Base Frame onto Foundation from Heavy Haul Transport	9
2.0	Fuel Gas System	
2.1	Engine Fuel Gas Flow Control Skid	9
2.2	Fuel Gas Interconnecting Piping – engine to fuel gas skid	9
2.3	Unit Gas Emergency Shutoff Valve	9
2 - Sy	ynchronous Generator	
Item	Description	
2.1	Generator Terminal Enclosure	9
2.2	Generator Protection and Control Panel	9
2.3	Generator Base Frame, including Sets of Steel Springs, Fastening Hardware,	9
	and Anchorage Types, Specifications, and Arrangement	
	Installation of Generator/Base Frame onto Foundation from Heavy Haul	
2.4	Transport	9
2.5	Generator Neutral Point Cubicle	9
	ackaging, Shipping & Delivery	
Item	Description	
3.1	Packaging for Shipment	9
3.2	Freight and Insurance to Site	9
3.3	Lifting Lugs or Attachment Points	9
3.4	Unloading of Engine and Generator at Site	9
3.5	Destination Inspection Assistance	9

4 - On	-Site Installation and Technical Field Assistance	
Item	Description	
4.1	On-Site Delivery Technical Coordination and Assistance Starting with Delivery of First Seller Furnished Equipment or Component	9
4.2	On-Site Erection Technical Assistance	9
4.3	Startup, Commissioning, and Performance Technical Assistance	9
4.4	Performance Testing Assistance	9
5 - Sp	are Parts & Special Tools	
Item	Description	
5.1	Start-Up and Commissioning Spare Parts	9
5.2	Special Tools	2
5.3	Special Rigging Devices and Lifting Devices	2
6 - Tr	aining	
Item	Description	
6.1	Training Courses (Operating Course On-Site for a Max of 10 People for a duration of 5 Days)	1
6.2	Off-Site Training Course at Seller Facility	1
7 - Mi	scellaneous	
Item	Description	
1.0	Foundations	
1.1	Foundation Loads, Reactions, and Foundation Requirements - Design Criteria	1
2.0	Engineering and Project Management Services	
2.1	Engineering of all Equipment supplied by Seller	1
2.2	Project Coordination/Review Meetings with Customer/Partner	AS NEEDED
2.3	Engineering Submittals – Submittal List	1
2.4	Integrated Design, Procurement, Fabrication Schedule	1
2.5	QA/QC	9
2.6	O&M Manuals (Instruction Books)	2
2.7	Constructability Review / Design Review for Items and Work under the responsibility of Seller	1
	under the responsibility of benef	

# ATTACHMENT B TECHNICAL DATA SHEETS FOR RECIPROCATING ENGINE AND GENERATOR SET

Manufacturer	
Reciprocating Engine - Type Machine	
Manufacturer's Model Designation	
Power Output at Base Load Per Engine - ISO	
(kW)	
Power Output at Peak Load Per Engine - ISO	
(kW)	
· /	
Heat Rate at Peak Load Per Engine - ISO (kW)	
Frequency (Hz)	
Delivery Time	
Number of Similar Units in Service	
Year First Unit Placed in Service	
Fleet Hours (Hrs.)	
Engine Data	
	Natural Gas, See Attachment C
	Tratarar Gus, See Tradeliment C
Cylinder Displacement (cm <sup>3</sup> )	
Shaft	
Rated Speed (RPM)	
Starting System	
Brake Horsenower Rating (RHP)	
Diake Horsepower Runing (Bill)	
Brake Horsepower Required (BHP)	
Brake Horsepower Required (BHP)	
Brake Horsepower Required (BHP)	
Brake Horsepower Required (BHP) Time Interval between Attempts (min.) Time Interval from Start Initiation to Base Load	
Brake Horsepower Required (BHP) Time Interval between Attempts (min.) Time Interval from Start Initiation to Base Load	

Lubrication System			
Common System for Reciprocating Engine and			
Generator			
Lube Oil Pumps _	Type	BHP	Driver
Main _			
Auxiliary			
Oil Reservoir - Capacity (Gal) _			
Retention (min.)			
Heater / Type & Power (KW) _			
Oil filter - Type & Filtration (microns)			
Oil Coolers - Type (BTU/Hr) _			
Fuel Gas Conditions Required	Min.		Max.
Fuel Gas Pressure (PSIG)			
Fuel Gas Temperature (°F)			
Fuel Gas Flow (lb / Hr)			
Fuel Gas Flow (SCFM)			
Minimum Fuel Gas Heating Value (BTU/SCF - HHV)			
		•	
Acoustical Level			
Near field (dBA) _			
Far field (dBA) _			
Controls and Instrumentation			
Control System - Mfg. & Type _			
Thermocouples - Mfg. & Type _			
RTDs - Mfg. & Type			_
<u>-</u>	Location	Number	Type
<u>-</u>			
Generator			
Mfg. & Type			
Cooling Method _			
Max. kVA@ low ambient temp. of 3°F_			
Power Output (KW)			
Power Factor _			
Stator Amperes @ rated kVA _			
Short Circuit Ratio _			

Generator Field Characteristics @ Rated Voltage	<u>Amperes</u>	<u>Volts</u>
No Load Dating @ 0.0 DE		
Base Load Rating @ 0.9 PF Peak Load Rating @ 0.9 PF		
1 cak Load Rating (a) 0.911		
Total Temperature & Insulation Class	° <u>C</u>	Class
Hottest Spot - Location		
Generator Reactances (percent)		
Synchronous (Xd)		
Transient (X'd)		
Subtransient (X"d)		
Negative sequence (X2)		
Zero Sequence (Xo)		
Leakage (Xe)		
Generator Time Constants (sec)		
Open Circuit (T'do)		
Armature (Ta)		
Transient (T'd)		
Subtransient (T"d)		
Generator Field resistance (ohms @ 75°C) Generator Temperature Coefficient of Field		
Generator Characteristic curves to furnished Capability (Base & Peak) vs. Air Temp.		
Reactive Capability vs. Air Temp.		
Saturation & Synchronous Impedance		
Vee Curves for various PF & Temps.		
Negative Phase Sequence Capability Curves		
Generator Physical Data		
Generator Shipping Wt (lb)		
Exciter Shipping Wt (lb)		
Rotor Wt (lb)		
Generator Rotor Inertia (WK2 - lb-sq ft)		
Combined Turbine Generator Stored Energy (E,		
MW-sec)		
Acceleration Constant (K, deg/sec-sq/MW)		
Generator Efficiency w/ windage, brg, & exciter		
losses		
Peak Load Rating		
Base Load Rating		
75 percent Base Load		
50 percent Base Load		

Cooling Water Quantity - if required (GPM)		
Mfg. & Type		_
Exciter Capacity (kW)		
Response Ratio		
Ceiling Voltage		
Cooling Water Quantity - if required (GPM)		
cooming water Quantity - It required (OTW)		
Voltage Regulator		
Sneed Resnanse		
Line Drop Compensator Provided		
Over-excitation Protection Provided _		
Over-excitation reduced in rovided _		
Switchgear		
MVA Interrupting Rating		
kVA Rating of Breakers and Bus		
KVII Ruting of Dieakers and Das		
Battery System		
Mfg. & Type of Battery		
Number of Batteries		
Battery Rating (8 HR @ A Hr)		
Battery Charger Rating (A at 125 V DC)		
Buttery charger raining (11 at 125 V BC)		
Generator Air Filter		
<b>y</b> -		
Generator Speed Response w/ Load Change		
(RPM)		
Loss of Full Load - Speed Rise		
-		
W. I	TTT 1 1 244 N	D: (0:)
Weights and Dimensions	Weight (lbs)	<u>Dim. (ft-in.)</u>
Reciprocating Engine		
Generator & Exciter		
Mechanical Accessories Pkg.		

<u> </u>		
Control Cabinet		
Aux. Transformer		
Inlet Duct & Silencing		
Exhaust Duct & Silencing		
G		
Generator Rotor		
Documentation / Schedule - (Wks ARO)	Preliminary	<u>Final</u>
General Arrangement drwgs		
Foundation drwgs		
Piping Interface Connection List		
Electrical Interface List		
Installation drwgs		
Piping & Instrumentation Diagrams		
Piping Design drwg		
Operation & Maintenance Manuals		
Spare Parts Lists		
Tests and Inspection  Mfg. Recommend Test and Inspection Points:  Reciprocating Engine		
Generator		
Controls		
Auxiliaries		
Other _		

# Attachment C – Fuel Gas Analysis

Gas Quality

TSP: 078444247

: Gulf South Pipeline Compa
rsp Name:

Gas Day: 10/19/2025

Location	Analysis Day	Specific Gravity	BTU Dry	BTU Wet	Nitrogen	C02	Methane	Ethane	Propane	I-Butane	N-Butane	N-Butane I-Pentane N-Pentane	-Pentane	+9 <b>2</b>	СНДР
East Texas	10/19/2025	0.5799	998.7000	981.3000	0.0330	2.1391	97.1420	0.5810	0.0561	0.0139	0.0121	0.0062	0.0034	0.0000	-55.88
East Texas Expansion	10/19/2025	0.5856	1016.7000	0000.666	0.1602	1.6986	95.8587	1.9226	0.2148	0.0593	0.0364	0.0169	0.0073	090000	-30.19
Gulf Crossing Receipt	10/19/2025	0.5751	1007,9000	990.4000	2.1634	0.0615	1665.56	2.0982	0.0701	0.0024	0.0027	0.0000	0.0000	0.0000	00'0
Gulf Crossing Delivery	10/19/2025	0.5812	1022.7000	1004.9000	1.1599	0.5404	95.0669	3.1413	0.0781	0.0032	0.0056	0.0011	0.0008	0.0013	-100.19
Brazos to North Houston	10/19/2025	0.5773	1000.1000	982.7000	2.0773	0.5899	95.7478	1.5327	0.0442	0.0026	0.0036	0.0008	0.0001	0.0000	0.00
West 30 to Goodrich & Clarence	10/19/2025	0.5740	995.9000	978.6000	0.0886	1.8809	97.8647	0.1595	0.0056	0.0000	0.0005	0.0000	0.0000	0.0000	0.00
Bistineau to North Louisiana	10/19/2025	0.5749	997.4000	980.1000	0.0439	1.8786	1077.79	0.2667	0.0222	0.0052	0.0043	0.0022	0.0014	0.0000	-90.66
Olla South											,				
Henry Hub	10/19/2025	0.5810	1011.2000	993.6000	0.1573	1.6431	96.4262	1.5917	0.1165	0.0230	0.0193	0.0077	0.0042	0.0026	-59.79
Bayou Sale to Napoleonville	10/19/2025	0.5797	1004.9000	987.4000	0.1249	1.8288	97.1209	0.7896	0.0820	0.0212	0.0149	0.0067	0.0034	0.0035	-62.22
Montpelier to Kosciusko	10/19/2025	0.5804	1012.0000	994.3000	0.4158	1.4005	96.2385	1.7945	0.0980	0.0199	0.0139	0.0062	0.0029	0.0000	-63.10
Kiln to Mobile	10/19/2025	0.5818	1027.4000	1009,6000	0.3148	1.0314	95.6251	2.6368	0.2598	0.0505	0.0415	0.0149	0.0081	0.0081	-40.20
Destin Petal Receipt	10/19/2025	0.5860	1018.3000	1000,6000	0.0000	0.0000	89.0000	8.0000	3.0000	0.0000	0.0000	0.0000	0.0000	0.0000	-91.49
Tennessee Petal Receipt	10/19/2025	0.5919	1059.5000	1041.0000	0.3926	0.2624	92.9977	6.0073	0.2778	0.0236	0.0258	0.0053	0.0021	0.0000	-69.17

- Data not available for gas day

# Section 481126 RECIPROCATING ENGINE-GENERATOR AND EQUIPMENT

#### ATTACHMENT D SUBMITTALS

- A. Refer to Section 013300 Submittal Procedures.
- B. The Supplier shall submit all information required to properly evaluate, document, operate and maintain the engines. As a minimum, the following information and data shall be submitted:
  - 1. Scope of supply including equipment lists with detailed pricing breakdown, including freight and work not included.
  - 2. Plan, elevation and cross-section views and process and instrumentation diagrams (P&IDs) showing equipment, including details of the equipment, devices, piping, valves, piping connections and instrumentation showing appropriate dimensions and required maintenance spaces.
  - 3. Equipment sizes including required access areas, approximate shipping and operating weights.
  - 4. Allowable nozzle forces and moments and nozzle thermal movements.
  - 5. A schedule of the Project drawings, document submittals, milestone payments, equipment delivery and any other deliverables.
  - 6. A complete data link register list for all available data and control links.
  - 7. Electrical schematics and field wiring connection diagrams.
  - 8. Cleaning, priming and painting specifications.
  - 9. Foundation setting plans complete with loading, anchor bolt patterns, support dimensions, grouting method and other necessary information for design of foundation concrete work.
  - 10. Welding procedures and qualification records.
  - 11. Any startup, shutdown or operating restrictions required to protect the integrity of the equipment.
  - 12. Recommended spare parts list including prices.
- C. The Supplier shall identify any exceptions to this Specification or its references and include detailed justification. The Supplier shall notify the Engineer of any modifications to its standard design required to meet these Specifications.
- D. The Engineer shall promptly review the Supplier's data when received; however, this review shall not constitute permission to deviate from any requirement unless specifically agreed in writing.

- E. The Supplier shall supply the following additional information complied into a manual which shall be submitted to Owner and Engineer for review and approval per Section 013300 Submittal Procedures.
  - 1. The Supplier shall provide sufficient written instructions and a cross referenced list of all drawings to enable the Engineer to correctly install, operate and maintain all of the equipment ordered. Preventative maintenance activities shall be discussed addressing operating and calendar hours, types of routine inspections, troubleshooting check lists and scheduling or inspection intervals. This information shall be compiled in a manual(s).
  - 2. The drawings furnished shall contain sufficient information so that, with the drawings and manuals, the Engineer can properly install, operate and maintain the equipment.
  - 3. The Supplier shall submit a complete parts list for all equipment and accessories supplied. The lists shall include Supplier's part numbers and materials of construction. The Supplier shall also supply a list of recommended spares for startup (one year), and normal maintenance (five years).
  - 4. Certified performance curves and data.
  - 5. The operating, maintenance, and technical data manual shall be sent per the PO.

#### F. System of Units:

- 1. All drawings, documents, correspondence, etc., shall be in the English language.
- 2. The system of units used on all drawings, documents, etc., shall be the US Customary System.

# SUBMITTAL SCHEDULE MECHANICAL

# Description

30 Days
30 Days
30 Days
30 Days
30 Days

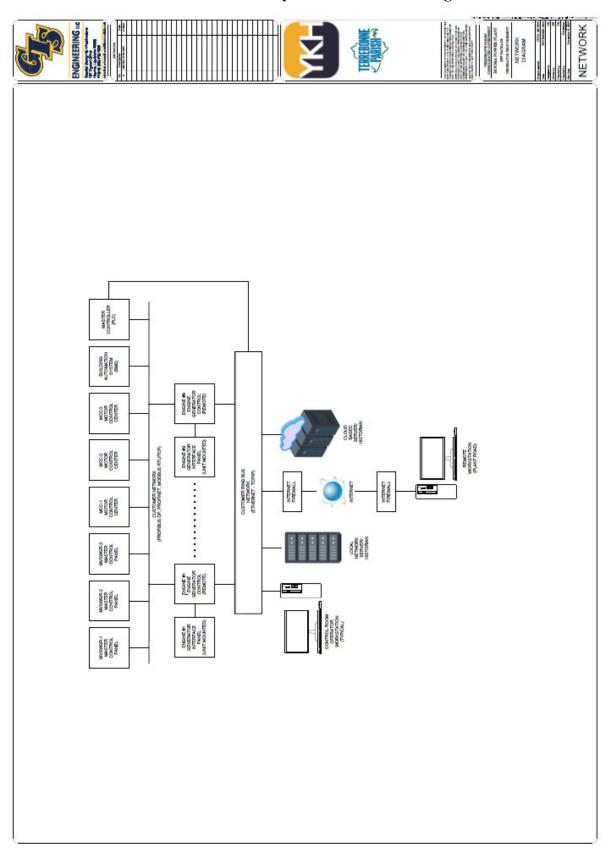
## **ELECTRICAL**

## Description

30 Days
30 Days

NOTE: ALL THESE MILESTONES MUST BE SPECIFIC TO CITY OF HOUMA – HOUMA POWER PLANT PROJECT, NOT GENERIC

# Attachment E – Control System Architectural Diagram



# **Attachment F – General Arrangement (Preliminary)**

