



**CITY OF AUSTIN, TEXAS**  
Purchasing Office  
**REQUEST FOR PROPOSAL (RFP)**  
**OFFER SHEET**

**SOLICITATION NO:** NST0406

**DATE ISSUED:** June 13, 2015

**REQUISITION NO.:** MAX56035

**COMMODITY CODE:** 1207453, 92590

**FOR CONTRACTUAL AND TECHNICAL ISSUES CONTACT THE FOLLOWING AUTHORIZED CONTACT PERSON:**

NICOLE TURNER  
SENIOR BUYER

**Phone:** (512) 322-6586  
**E-Mail:** [Nicole.turner@austinenergy.com](mailto:Nicole.turner@austinenergy.com)

**COMMODITY/SERVICE DESCRIPTION:** Purchase of New 1800 RPM Condensate Pumps and Motors for Unit 5 Sand Hill Energy Center

**PRE-PROPOSAL CONFERENCE TIME AND DATE:** AUGUST 7, 2015 AT 12:30 PM

**LOCATION:** SAND HILL ENERGY CENTER , 1101 FALLWELL LANE, AUSTIN, TX 78617 OR CALL (877) 402-9753 ACCESS CODE 2182020

**PROPOSAL DUE PRIOR TO:** 3:00PM ON AUGUST 21, 2015

**PROPOSAL CLOSING TIME AND DATE:** 3:00PM ON AUGUST 21, 2015

**LOCATION:** MUNICIPAL BUILDING, 124 W 8<sup>th</sup> STREET RM 308, AUSTIN, TEXAS 78701

**When submitting a sealed Offer and/or Compliance Plan, use the proper address for the type of service desired, as shown below:**

Address for US Mail (Only)	Address for Fedex, UPS, Hand Delivery or Courier Service
City of Austin	City of Austin, Municipal Building
Purchasing Office-Response Enclosed for Solicitation # RFP NST0406	Purchasing Office-Response Enclosed for Solicitation # RFP NST0406
P.O. Box 1088	124 W 8 <sup>th</sup> Street, Rm 308
Austin, Texas 78767-8845	Austin, Texas 78701
	Reception Phone: (512) 974-2500

**NOTE: Offers must be received and time stamped in the Purchasing Office prior to the Due Date and Time. It is the responsibility of the Offeror to ensure that their Offer arrives at the receptionist's desk in the Purchasing Office prior to the time and date indicated. Arrival at the City's mailroom, mail terminal, or post office box will not constitute the Offer arriving on time. See Section 0200 for additional solicitation instructions.**

**All Offers (including Compliance Plans) that are not submitted in a sealed envelope or container will not be considered.**

**SUBMIT 1 ORIGINAL, 5 COPIES, AND 1 ELECTRONIC COPY OF YOUR RESPONSE**

**\*\*\*SIGNATURE FOR SUBMITTAL REQUIRED ON PAGE 3 OF THIS DOCUMENT\*\*\***

**This solicitation is comprised of the following required sections. Please ensure to carefully read each section including those incorporated by reference. By signing this document, you are agreeing to all the items contained herein and will be bound to all terms.**

<b>SECTION NO.</b>	<b>TITLE</b>	<b>PAGES</b>
0100	STANDARD PURCHASE DEFINITIONS	*
0200	STANDARD SOLICITATION INSTRUCTIONS	*
0300	STANDARD PURCHASE TERMS AND CONDITIONS	*
0400	SUPPLEMENTAL PURCHASE PROVISIONS	7
0500	SCOPE OF WORK	5
0600	PROPOSAL PREPARATION INSTRUCTIONS & EVALUATION FACTORS	3
0605	LOCAL BUSINESS PRESENCE IDENTIFICATION FORM – Complete and return	2
0700	REFERENCE SHEET – Complete and return if required	2
0705	COST PROPOSAL SHEET	1
0800	NON-DISCRIMINATION CERTIFICATION	*
0805	NON-SUSPENSION OR DEBARMENT CERTIFICATION	*
0810	NON-COLLUSION, NON-CONFLICT OF INTEREST, AND ANTI-LOBBYING CERTIFICATION	*
0835	NONRESIDENT BIDDER PROVISIONS – Complete and return	1
0900	MBE/WBE PROCUREMENT PROGRAM PACKAGE NO GOALS FORM – Complete & return	2
ATT1	Exhibit A Existing Pump Performance	1
ATT2	Exhibit B Existing Pump Drawings	2
ATT3	Exhibit C SHEC Contractor Work Requirements	10
ATT4	Exhibit D Condensate Pump Motor Specifications	17

**\* Documents are hereby incorporated into this Solicitation by reference, with the same force and effect as if they were incorporated in full text. The full text versions of these Sections are available, on the Internet at the following online address:**

[http://www.austintexas.gov/financeonline/vendor\\_connection/index.cfm#STANDARDBIDDOCUMENTS](http://www.austintexas.gov/financeonline/vendor_connection/index.cfm#STANDARDBIDDOCUMENTS)

**If you do not have access to the Internet, you may obtain a copy of these Sections from the City of Austin Purchasing Office located in the Municipal Building, 124 West 8<sup>th</sup> Street, Room #308 Austin, Texas 78701; phone (512) 974-2500. Please have the Solicitation number available so that the staff can select the proper documents. These documents can be mailed, expressed mailed, or faxed to you.**

**The undersigned, by his/her signature, represents that he/she is submitting a binding offer and is authorized to bind the respondent to fully comply with the solicitation document contained herein. The Respondent, by submitting and signing below, acknowledges that he/she has received and read the entire document packet sections defined above including all documents incorporated by reference, and agrees to be bound by the terms therein.**

Company Name: \_\_\_\_\_

Company Address: \_\_\_\_\_

City, State, Zip: \_\_\_\_\_

Federal Tax ID No. \_\_\_\_\_

Printed Name of Officer or Authorized Representative: \_\_\_\_\_

Title: \_\_\_\_\_

Signature of Officer or Authorized Representative: \_\_\_\_\_

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

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

Phone Number: \_\_\_\_\_

**\* Proposal response must be submitted with this Offer sheet to be considered for award**

**Section 0605: Local Business Presence Identification**

A firm (Offeror or Subcontractor) is considered to have a Local Business Presence if the firm is headquartered in the Austin Corporate City Limits, or has a branch office located in the Austin Corporate City Limits in operation for the last five (5) years, currently employs residents of the City of Austin, Texas, and will use employees that reside in the City of Austin, Texas, to support this Contract. The City defines headquarters as the administrative center where most of the important functions and full responsibility for managing and coordinating the business activities of the firm are located. The City defines branch office as a smaller, remotely located office that is separate from a firm's headquarters that offers the services requested and required under this solicitation.

**OFFEROR MUST SUBMIT THE FOLLOWING INFORMATION FOR EACH LOCAL BUSINESS (INCLUDING THE OFFEROR, IF APPLICABLE) TO BE CONSIDERED FOR LOCAL PRESENCE.**

*NOTE: ALL FIRMS MUST BE IDENTIFIED ON THE MBE/WBE COMPLIANCE PLAN OR NO GOALS UTILIZATION PLAN (REFERENCE SECTION 0900).*

**\*USE ADDITIONAL PAGES AS NECESSARY\***

**OFFEROR:**

Name of Local Firm		
Physical Address		
Is your headquarters located in the Corporate City Limits? (circle one)	Yes	No
or		
Has your branch office been located in the Corporate City Limits for the last 5 years?		
Will your business be providing additional economic development opportunities created by the contract award? (e.g., hiring, or employing residents of the City of Austin or increasing tax revenue?)	Yes	No

**SUBCONTRACTOR(S):**

Name of Local Firm		
Physical Address		
Is your headquarters located in the Corporate City Limits? (circle one)	Yes	No
or		
Has your branch office been located in the Corporate City Limits for the last 5 years	Yes	No

Will your business be providing additional economic development opportunities created by the contract award? (e.g., hiring, or employing residents of the City of Austin or increasing tax revenue?)	Yes	No

**SUBCONTRACTOR(S):**

Name of Local Firm		
Physical Address		
Is your headquarters located in the Corporate City Limits? (circle one)	Yes	No
or		
Has your branch office been located in the Corporate City Limits for the last 5 years	Yes	No
Will your business be providing additional economic development opportunities created by the contract award? (e.g., hiring, or employing residents of the City of Austin or increasing tax revenue?)	Yes	No

**Section 0700: Reference Sheet**

Please include the following information if required in the solicitation:

Responding Company Name \_\_\_\_\_

1. Company's Name \_\_\_\_\_  
Name and Title of Contact \_\_\_\_\_  
Present Address \_\_\_\_\_  
City, State, Zip Code \_\_\_\_\_  
Telephone Number (\_\_\_\_\_) \_\_\_\_\_ Fax Number (\_\_\_\_\_) \_\_\_\_\_  
Email Address \_\_\_\_\_

2. Company's Name \_\_\_\_\_  
Name and Title of Contact \_\_\_\_\_  
Present Address \_\_\_\_\_  
City, State, Zip Code \_\_\_\_\_  
Telephone Number (\_\_\_\_\_) \_\_\_\_\_ Fax Number (\_\_\_\_\_) \_\_\_\_\_  
Email Address \_\_\_\_\_

3. Company's Name \_\_\_\_\_  
Name and Title of Contact \_\_\_\_\_  
Present Address \_\_\_\_\_  
City, State, Zip Code \_\_\_\_\_  
Telephone Number (\_\_\_\_\_) \_\_\_\_\_ Fax Number (\_\_\_\_\_) \_\_\_\_\_  
Email Address \_\_\_\_\_

4. Company's Name \_\_\_\_\_  
Name and Title of Contact \_\_\_\_\_  
Present Address \_\_\_\_\_  
City, State, Zip Code \_\_\_\_\_  
Telephone Number (\_\_\_\_\_) \_\_\_\_\_ Fax Number (\_\_\_\_\_) \_\_\_\_\_  
Email Address \_\_\_\_\_

5. Company's Name \_\_\_\_\_  
Name and Title of Contact \_\_\_\_\_  
Present Address \_\_\_\_\_  
City, State, Zip Code \_\_\_\_\_  
Telephone Number (\_\_\_\_\_) \_\_\_\_\_ Fax Number (\_\_\_\_\_) \_\_\_\_\_  
Email Address \_\_\_\_\_

**Section 0835: Non-Resident Bidder Provisions**

Company Name \_\_\_\_\_

- A. Bidder must answer the following questions in accordance with Vernon's Texas Statutes and Codes Annotated Government Code 2252.002, as amended:

Is the Bidder that is making and submitting this Bid a "Resident Bidder" or a "non-resident Bidder"?

Answer: \_\_\_\_\_

- (1) Texas Resident Bidder- A Bidder whose principle place of business is in Texas and includes a Contractor whose ultimate parent company or majority owner has its principal place of business in Texas.
- (2) Nonresident Bidder- A Bidder who is not a Texas Resident Bidder.

- B. If the Bidder id a "Nonresident Bidder" does the state, in which the Nonresident Bidder's principal place of business is located, have a law requiring a Nonresident Bidder of that state to bid a certain amount or percentage under the Bid of a Resident Bidder of that state in order for the nonresident Bidder of that state to be awarded a Contract on such bid in said state?

Answer: \_\_\_\_\_ Which State: \_\_\_\_\_

- C. If the answer to Question B is "yes", then what amount or percentage must a Texas Resident Bidder bid under the bid price of a Resident Bidder of that state in order to be awarded a Contract on such bid in said state?

Answer: \_\_\_\_\_

**Section 0900: Minority- and Women-Owned Business Enterprise (MBE/WBE) Procurement Program No Goals Form**

SOLICITATION NUMBER:
PROJECT NAME:

**The City of Austin has determined that no goals are appropriate for this project.** Even though goals were not assigned for this solicitation, the Bidder/Proposer is required to comply with the City's MBE/WBE Procurement Program, if areas of subcontracting are identified.

If any service is needed to perform the Contract and the Bidder/Proposer does not perform the service with its own workforce or if supplies or materials are required and the Bidder/Proposer does not have the supplies or materials in its inventory, the Bidder/Proposer shall contact the Small and Minority Business Resources Department (SMBR) at (512) 974-7600 to obtain a list of MBE and WBE firms available to perform the service or provide the supplies or materials. The Bidder/Proposer must also make a Good Faith Effort to use available MBE and WBE firms. Good Faith Efforts include but are not limited to contacting the listed MBE and WBE firms to solicit their interest in performing on the Contract, using MBE and WBE firms that have shown an interest, meet qualifications, and are competitive in the market; and documenting the results of the contacts.

**Will subcontractors or sub-consultants or suppliers be used to perform portions of this Contract?**

**No** \_\_\_\_\_ **If no, please sign the No Goals Form and submit it with your Bid/Proposal in a sealed envelope**

**Yes** \_\_\_\_\_ **If yes, please contact SMBR to obtain further instructions and an availability list and perform Good Faith Efforts. Complete and submit the No Goals Form and the No Goals Utilization Plan with your Bid/Proposal in a sealed envelope.**

**After Contract award, if your firm subcontracts any portion of the Contract, it is a requirement to complete Good Faith Efforts and the No Goals Utilization Plan, listing any subcontractor, sub-consultant, or supplier. Return the completed Plan to the Project Manager or the Contract Manager.**

<b>I understand that even though goals were not assigned, I must comply with the City's MBE/WBE Procurement Program if subcontracting areas are identified. I agree that this No Goals Form and No Goals Utilization Plan shall become a part of my Contract with the City of Austin.</b>	
_____	
<b>Company Name</b>	
_____	
<b>Name and Title of Authorized Representative (Print or Type)</b>	
_____	
<b>Signature</b>	<b>Date</b>

**Minority- and Women-Owned Business Enterprise (MBE/WBE) Procurement Program No Goals Utilization Plan**  
 (Please duplicate as needed)

SOLICITATION NUMBER:
PROJECT NAME:

**PRIME CONTRACTOR / CONSULTANT COMPANY INFORMATION**

Name of Contractor/Consultant			
Address			
City, State Zip			
Phone Number		Fax Number	
Name of Contact Person			
Is Company City certified?	Yes <input type="checkbox"/> No <input type="checkbox"/> MBE <input type="checkbox"/> WBE <input type="checkbox"/> MBE/WBE Joint Venture <input type="checkbox"/>		

I certify that the information included in this No Goals Utilization Plan is true and complete to the best of my knowledge and belief. I further understand and agree that the information in this document shall become part of my Contract with the City of Austin.

\_\_\_\_\_  
**Name and Title of Authorized Representative (Print or Type)**

\_\_\_\_\_  
**Signature**

\_\_\_\_\_  
**Date**

Provide a list of all proposed subcontractors / sub-consultants / suppliers that will be used in the performance of this Contract. **Attach Good Faith Effort documentation if non MBE/WBE firms will be used.**

<b>Sub-Contractor / Sub-Consultant</b>			
City of Austin Certified	MBE <input type="checkbox"/>	WBE <input type="checkbox"/>	Ethics / Gender Code: <input type="checkbox"/> Non-Certified
Vendor ID Code			
Contact Person		Phone Number	
Amount of Subcontract	\$		
List commodity codes & description of services			

<b>Sub-Contractor / Sub-Consultant</b>			
City of Austin Certified	MBE <input type="checkbox"/>	WBE <input type="checkbox"/>	Ethics / Gender Code: <input type="checkbox"/> Non-Certified
Vendor ID Code			
Contact Person		Phone Number	
Amount of Subcontract	\$		
List commodity codes & description of services			

**FOR SMALL AND MINORITY BUSINESS RESOURCES DEPARTMENT USE ONLY:**

Having reviewed this plan, I acknowledge that the proposer (HAS) or (HAS NOT) complied with City Code Chapter 2-9A/B/C/D, as amended.

**Reviewing Counselor** \_\_\_\_\_ **Date** \_\_\_\_\_ **Director/Deputy Director** \_\_\_\_\_ **Date** \_\_\_\_\_

**CITY OF AUSTIN  
PURCHASING OFFICE  
SUPPLEMENTAL PURCHASE PROVISIONS  
RFP NST0406**

The following Supplemental Purchasing Provisions apply to this solicitation:

1. **EXPLANATIONS OR CLARIFICATIONS:** (reference paragraph 5 in Section 0200)

All requests for explanations or clarifications must be submitted in writing to the Purchasing Office by 8:00 AM on August 11, 2015. Requests can be emailed to [Nicole.Turner@austinenergy.com](mailto:Nicole.Turner@austinenergy.com) or via fax to 512-322-6174.

2. **INSURANCE:** Insurance is required for this solicitation.

A. **General Requirements:** See Section 0300, Standard Purchase Terms and Conditions, paragraph 32, entitled Insurance, for general insurance requirements.

- i. The Contractor shall provide a Certificate of Insurance as verification of coverages required below to the City at the below address prior to contract execution and within 14 calendar days after written request from the City. Failure to provide the required Certificate of Insurance may subject the Offer to disqualification from consideration for award
- ii. The Contractor shall not commence work until the required insurance is obtained and until such insurance has been reviewed by the City. Approval of insurance by the City shall not relieve or decrease the liability of the Contractor hereunder and shall not be construed to be a limitation of liability on the part of the Contractor.
- iii. The Contractor must also forward a Certificate of Insurance to the City whenever a previously identified policy period has expired, or an extension option or holdover period is exercised, as verification of continuing coverage.
- iv. The Certificate of Insurance, and updates, shall be mailed to the following address:

City of Austin Purchasing Office  
P. O. Box 1088  
Austin, Texas 78767

B. **Specific Coverage Requirements:** The Contractor shall at a minimum carry insurance in the types and amounts indicated below for the duration of the Contract, including extension options and hold over periods, and during any warranty period. These insurance coverages are required minimums and are not intended to limit the responsibility or liability of the Contractor.

- i. **Worker's Compensation and Employers' Liability Insurance:** Coverage shall be consistent with statutory benefits outlined in the Texas Worker's Compensation Act (Section 401). The minimum policy limits for Employer's Liability are \$100,000 bodily injury each accident, \$500,000 bodily injury by disease policy limit and \$100,000 bodily injury by disease each employee.
  - (1) The Contractor's policy shall apply to the State of Texas and include these endorsements in favor of the City of Austin:
    - (a) Waiver of Subrogation, Form WC420304, or equivalent coverage
    - (b) Thirty (30) days Notice of Cancellation, Form WC420601, or equivalent coverage
- ii. **Commercial General Liability Insurance:** The minimum bodily injury and property damage per occurrence are \$500,000 for coverages A (Bodily Injury and Property Damage) and B (Personal and Advertising Injury).
  - (1) The policy shall contain the following provisions:
    - (a) Contractual liability coverage for liability assumed under the Contract and all other Contracts related to the project.
    - (b) Contractor/Subcontracted Work.
    - (c) Products/Completed Operations Liability for the duration of the warranty period.
    - (d) If the project involves digging or drilling provisions must be included that provide Explosion, Collapse, and/or Underground Coverage.
  - (2) The policy shall also include these endorsements in favor of the City of Austin:
    - (a) Waiver of Subrogation, Endorsement CG 2404, or equivalent coverage

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- (b) Thirty (30) days Notice of Cancellation, Endorsement CG 0205, or equivalent coverage
    - (c) The City of Austin listed as an additional insured, Endorsement CG 2010, or equivalent coverage
  - iii. **Business Automobile Liability Insurance:** The Contractor shall provide coverage for all owned, non-owned and hired vehicles with a minimum combined single limit of \$500,000 per occurrence for bodily injury and property damage. Alternate acceptable limits are \$250,000 bodily injury per person, \$500,000 bodily injury per occurrence and at least \$100,000 property damage liability per accident.
    - (1) The policy shall include these endorsements in favor of the City of Austin:
      - (a) Waiver of Subrogation, Endorsement CA0444, or equivalent coverage
      - (b) Thirty (30) days Notice of Cancellation, Endorsement CA0244, or equivalent coverage
      - (c) The City of Austin listed as an additional insured, Endorsement CA2048, or equivalent coverage.
  - iv. **Property Insurance:** The Contractor shall provide All Risk Property coverage including, but not limited to, fire, wind, hail, theft, vandalism, and malicious mischief for all real and personal property owned by the City and in the care, custody, and control of the Contractor. The City shall be added to the property policy as a Loss Payee as their interest may appear. The Contractor shall also provide Transit coverage for all equipment provided to the City for which the Contractor has received payment. The amount of insurance coverage shall at a minimum be \$500,000.00 or the amount to replace the equipment, whichever is larger.
  - v. **Professional Liability Insurance:** The Contractor shall provide coverage, at a minimum limit of \$1,000,000.00 per claim, to pay on behalf of the assured all sums which the assured shall become legally obligated to pay as damages by reason of any negligent act, error, or omission arising out of the performance of professional services under this Agreement.

If coverage is written on a claims-made basis, the retroactive date shall be prior to or coincident with the date of the Contract and the certificate of insurance shall state that the coverage is claims-made and indicate the retroactive date. This coverage shall be continuous and will be provided for 24 months following the completion of the contract.

- C. **Endorsements:** The specific insurance coverage endorsements specified above, or their equivalents must be provided. In the event that endorsements, which are the equivalent of the required coverage, are proposed to be substituted for the required coverage, copies of the equivalent endorsements must be provided for the City's review and approval.

**3. PAYMENT BOND:**

- A. The Contractor shall provide a Payment Bond in an amount equal to 100% of the Contract amount within 14 calendar days after notification of award. The Payment Bond serves as security for the faithful payment of all of the Contractor's obligations for subcontracts, work, labor, equipment, supplies, and materials furnished under the Contract. The Payment Bond shall be issued by a solvent company authorized to do business in the State of Texas, and shall meet any other requirements established by law or by the City pursuant to applicable law. The Surety must obtain reinsurance for any portion of the risk that exceeds 10% of the Surety's capital and surplus. For bonds exceeding \$100,000, the Surety must also hold a certificate of authority from the U.S. Secretary of the Treasury or have obtained reinsurance from a reinsurer that is authorized as a reinsurer in Texas and holds a certificate of authority from the U.S. Secretary of the Treasury.
- B. The Payment Bond shall remain in effect throughout the term of the Contract, and shall be renewed for each respective extension.

**4. PERFORMANCE BOND:**

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SUPPLEMENTAL PURCHASE PROVISIONS  
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- A. The Contractor shall provide a Performance Bond in an amount equal to 100% of the Contract amount within 14 calendar days after notification of award. The Performance Bond serves as security for the faithful performance of all of the Contractor's obligations under the Contract. The Performance Bond shall be issued by a solvent company authorized to do business in the State of Texas, and shall meet any other requirements established by law or by the City pursuant to applicable law. The Surety must obtain reinsurance for any portion of the risk that exceeds 10% of the Surety's capital and surplus. For bonds exceeding \$100,000, the Surety must also hold a certificate of authority from the U.S. Secretary of the Treasury or have obtained reinsurance from a reinsurer that is authorized as a reinsurer in Texas and holds a certificate of authority from the U.S. Secretary of the Treasury.
- B. The Performance Bond shall remain in effect throughout the term of the Contract and shall be renewed for each respective extension.

**5. TERM OF CONTRACT:**

- A. The Term of Contract shall be determined by the Contractor's Delivery Schedule date as approved by Austin Energy.

**6. DELIVERY REQUIREMENTS:**

Location:	Days: Monday – Friday
Sand Hill Energy Center	8:00 am – 5:00 pm
1101 Fallwell Lane	
Del Valle, TX 78617	
Project Manager: Luis Cordova 512-322-6161	

- A. The Contractor shall provide, with each delivery, a typed Shipping or Delivery Ticket showing the description of each item, quantity, and unit price.
- B. Contractor's Delivery Schedule date is the date submitted by the Contractor for final acceptance of the three (3) 1800-RPM Condensate Pumps and Motors.
- C. Unless requested by the City, deliveries shall not be made on City-recognized legal holidays (see paragraph 51 in Section 0300).

**7. INVOICES and PAYMENT: (reference paragraphs 12 and 13 in Section 0300)**

- A. Invoices shall contain a unique invoice number and the information required in Section 0300, paragraph 12, entitled "Invoices." Invoices received without all required information cannot be processed and will be returned to the vendor. All invoices shall be typed.

Invoices shall be mailed to the below address:

	City of Austin
Department	Austin Energy
Attn:	Luis Cordova
Address	811 Barton Springs Road, Suite 620
City, State Zip Code	Austin, TX 78704

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- B. The Contractor agrees to accept payment by check or Electronic Funds Transfer (EFT) for all goods and/or services provided under the Contract. The Contractor shall factor the cost of processing credit card payments into the Offer.
  - C. Payment to the Contractor shall be based upon the successful completion of milestones stated in the Project Plan provided by the Contractor. Invoices shall include the work successfully completed by the Contractor and verified by Austin Energy or Austin Energy's authorized representative.
8. **LIQUIDATED DAMAGES:** Time is of the essence in the performance of the Contract; therefore, the Contractor shall strictly adhere to the Contract delivery schedule. No changes in the delivery schedule shall be effective unless in writing executed by both the City and the Contractor. The parties agree that if, due to no fault of the City, delivery of any material or performance of any service is delayed beyond the time specified in the Contract, the actual damages sustained by the City because of such delay will be uncertain and difficult to determine, and that the reasonable foreseeable damage incurred by the City is hereby stipulated to be \$5,000.00 per calendar day. The Contractor therefore agrees to pay, and the City agrees to accept, as liquidated damages, the sum of \$5,000.00 per calendar day for each calendar day of delay.
9. **RETAINAGE:** The City will withhold 10 percent (%) retainage until completion of all work required by the Contract. The Contractor's invoice shall indicate the amount due, less the retainage. Upon final acceptance of the work, the Contractor shall submit an invoice for the retainage to the City and payment will be made as specified in the Contract. Payment of the retainage by the City shall not constitute nor be deemed a waiver or release by the City of any of its rights and remedies against the Contractor for recovery of amounts improperly invoiced or for defective, incomplete or non-conforming work under the Contract.
10. **HAZARDOUS MATERIALS:**
- A. If this Solicitation involves hazardous materials, the Offeror should furnish with the Offer Material Safety Data Sheets (MSDS), (OSHA Form 20), on all chemicals and hazardous materials specifying the generic and trade name of product, product specification, and full hazard information including receiving and storage hazards. Instructions, special equipment needed for handling, information on approved containers, and instructions for the disposal of the material are also required.
  - B. Failure to submit the MSDS as part of the Offer may subject the Offer to disqualification from consideration for award.
  - C. The MSDS, instructions and information required in paragraph "A" must be included with each shipment under the contract.
11. **NON-COLLUSION, NON-CONFLICT OF INTEREST, AND ANTI-LOBBYING:**
- A. On November 10, 2011, the Austin City Council adopted Ordinance No. 20111110-052 amending Chapter 2.7, Article 6 of the City Code relating to Anti-Lobbying and Procurement. The policy defined in this Code applies to Solicitations for goods and/or services requiring City Council approval under City Charter Article VII, Section 15 (Purchase Procedures). During the No-Contact Period, Offerors or potential Offerors are prohibited from making a representation to anyone other than the Authorized Contact Person in the Solicitation as the contact for questions and comments regarding the Solicitation.
  - B. If during the No-Contact Period an Offeror makes a representation to anyone other than the Authorized Contact Person for the Solicitation, the Offeror's Offer is disqualified from further consideration except as permitted in the Ordinance.
  - C. If an Offeror has been disqualified under this article more than two times in a sixty (60) month period, the Purchasing Officer shall debar the Offeror from doing business with the City for a period not to exceed three (3) years, provided the Offeror is given written notice and a hearing in advance of the debarment.

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- D. The City requires Offerors submitting Offers on this Solicitation to certify that the Offeror has not in any way directly or indirectly made representations to anyone other than the Authorized Contact Person during the No-Contact Period as defined in the Ordinance. The text of the City Ordinance is posted on the Internet at: <http://www.ci.austin.tx.us/edims/document.cfm?id=161145>

**12. WORKFORCE SECURITY CLEARANCE AND IDENTIFICATION (ID):**

- A. Contractors are required to obtain a certified criminal background report with fingerprinting (referred to as the "report") for all persons performing on the contract, including all Contractor, Subcontractor, and Supplier personnel (for convenience referred to as "Contractor's personnel").
- B. The report may be obtained by reporting to one of the below governmental entities, submitting to fingerprinting and requesting the report [requestors may anticipate a two-week delay for State reports and up to a four to six week delay for receipt of a Federal report.].
- i. Texas Department of Public Safety for any person currently residing in the State of Texas and having a valid Texas driver's license or photo ID card;
  - ii. The appropriate governmental agency from either the U.S. state or foreign nation in which the person resides and holds either a valid U.S. state-issued or foreign national driver's license or photo ID card; or
  - iii. A Federal Agency. A current Federal security clearance obtained from and certified by a Federal agency may be substituted.
- C. Contractor shall obtain the reports at least 30 days prior to any onsite work commencement. Contractor also shall attach to each report the project name, Contractor's personnel name(s), current address(es), and a copy of the U.S. state-issued or foreign national driver's license or photo ID card.
- D. Contractor shall provide the City a Certified Criminal Background Report affirming that Contractor has conducted required security screening of Contractor's personnel to determine those appropriate for execution of the work and for presence on the City's property. A list of all Contractor Personnel requiring access to the City's site shall be attached to the affidavit.
- E. Upon receipt by the City of Contractor's affidavit described in (D) above and the list of the Contractor's personnel, the City will provide each of Contractor's personnel a contractor ID badge that is required for access to City property that shall be worn at all times by Contractor's personnel during the execution of the work.
- F. The City reserves the right to deny an ID badge to any Contractor personnel for reasonable cause, including failure of a Criminal History background check. The City will notify the Contractor of any such denial no more than twenty (20) days after receipt of the Contractor's reports. Where denial of access by a particular person may cause the Contractor to be unable to perform any portion of the work of the contract, the Contractor shall so notify the City's Contract Manager, in writing, within ten (10) calendar days of the receipt of notification of denial.
- G. Contractor's personnel will be required to wear the ID badge at all times while on the work site. Failure to wear or produce the ID badge may be cause for removal of an individual from the work site, without regard to Contractor's schedule. Lost ID badges shall be reported to the City's Contract Manager. Contractor shall reimburse the City for all costs incurred in providing additional ID badges to Contractor Personnel.
- H. ID badges to enter and/or work on the City property may be revoked by the City at any time. ID badges must be returned to the City at the time of project completion and acceptance or upon removal of an individual from the work site.
- I. Contractor is not required to obtain reports for delivery personnel, including but not limited to FedEx, UPS, Roadway, or other materials delivery persons, however all delivery personnel must present

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company/employer-issued photo ID and be accompanied by at least one of Contractor's personnel at all times while at the work site.

- J. The Contractor shall retain the reports and make them available for audit by the City during regular business hours (reference paragraph 17 in Section 0300, entitled Right to Audit).

13. **MONTHLY SUBCONTRACT AWARDS AND EXPENDITURES REPORT:** (reference paragraph 18 in Section 0300) (applicable when an MBE/WBE Compliance Plan is required)

- A. The Contractor must submit a monthly Subcontract Awards and Expenditures Report to the Contract Manager specified herein and to the Purchasing Office Contract Compliance Manager no later than the tenth calendar day of each month.
- B. Mail the Purchasing Office Copy of the report to the following address:

City of Austin  
Purchasing Office  
Attn: Contract Compliance Manager  
P. O. Box 1088  
Austin, Texas 78767

14. **WORKING ON OR NEAR ENGERGIZED EQUIPMENT – ARC FLASH PROTECTION (reference Section 0300 Paragraph 11. Compliance With Health, Safety, and Environmental Regulations):** Contractor's employees shall wear at all times the proper personal protective equipment and clothing required for the head, face, torso, arms, hands, and lower body that provides a minimum Arc Thermal Protection Value (ATPV) of 12 calories per square centimeter ( $\text{cal}/\text{cm}^2$ ) when working on or near energized electrical equipment, or greater, if required by the NFPA Standard 70E and/or Article 410 of the NESC for the work being performed.

15. **WARRANTY – DELIVERABLES:** (reference Section 0300, Paragraph 21, Warranty – Deliverables, Paragraph C.)

In the first sentence, replace the words "at least one year" with the words "two (2) years". The warranty period shall start from written date of acceptance by Austin Energy after the pumps are successfully commissioned at Sand Hill Energy Center (SHEC).

16. **WARRANTY – SERVICES:** (reference Section 0300, Paragraph 22, Warranty – Services, Paragraph B.)

In the first sentence, replace the words "at least one year" with the words "two (2) years". The warranty period shall start from written date of acceptance by Austin Energy after the pumps are successfully commissioned at Sand Hill Energy Center (SHEC).

17. **OWNERSHIP AND USE OF DELIVERABLES:** The City shall own all rights, titles, and interests throughout the world in and to the Deliverables.

- A. **Patents:** As to any patentable subject matter contained in the Deliverables, the Contractor agrees to disclose such patentable subject matter to the City. Further, if requested by the City, the Contractor agrees to assign and, if necessary, cause each of its employees to assign the entire right, title, and interest to specific inventions under such patentable subject matter to the City and to execute, acknowledge, and deliver and, if necessary, cause each of its employees to execute, acknowledge, and deliver an assignment of letters patent, in a form to be reasonably approved by the City, to the City upon request by the City.
- B. **Copyrights:** As to any Deliverable containing copyrighted subject matter, the Contractor agrees that upon their creation, such Deliverables shall be considered as work made-for-hire by the Contractor for the City and the City shall own all copyrights in and to such Deliverables, provided however, that nothing in this Paragraph 36 shall negate the City's sole or joint ownership of any such Deliverables arising by virtue of the City's sole or joint authorship of such Deliverables. Should by operation of law,

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such Deliverables not be considered work made-for-hire, the Contractor hereby assigns to the City (and agrees to cause each of its employees providing services to the City hereunder to execute, acknowledge, and deliver an assignment to the City of Austin) all worldwide right, title, and interest in and to such Deliverables. With respect to such work made-for-hire, the Contractor agrees to execute, acknowledge and deliver and cause each of its employees providing services to the City hereunder to execute, acknowledge, and deliver a work-for-hire agreement, in a form to be reasonably approved by the City, to the City upon delivery of such Deliverables to the City or at such other time as the City may request.

- C. **Additional Assignments:** The Contractor further agrees to, and if applicable, cause each of its employees to execute, acknowledge, and deliver all applications, specifications, oaths, assignments, and all other instruments which the City might reasonably deem necessary in order to apply for and obtain copyright protection, mask work registration, trademark registration and/or protection, letters patent, or any similar rights in any and all countries and in order to assign and convey to the City, its successors, assigns, and nominees, the sole and exclusive right, title, and interest in and to the Deliverables, The Contractor's obligations to execute acknowledge, and deliver (or cause to be executed, acknowledged, and delivered) instruments or papers such as those described in this Paragraph 36 A., B., and C. shall continue after the termination of this Contract with respect to such Deliverables. In the event the City should not seek to obtain copyright protection, mask work registration or patent protection for any of the Deliverables, but should arise to keep the same secret, the Contractor agrees to treat the same as Confidential Information under the terms of Paragraph above.

- 18. PROJECT MANAGER:** The following person is designated as Project Manager, and will act as the contact point between the City and the Contractor during the term of the Contract:

Luis Cordova

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(512) 322-6161

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Luis.cordova@austinenergy.com

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\*Note: The above listed Project Manager is not the authorized Contact Person for purposes of the **NON-COLLUSION, NON-CONFLICT OF INTEREST, AND ANTI-LOBBYING Provision** of this Section; and therefore, contact with the Contract Manager is prohibited during the no contact period.

- 19. CONTRACT MANAGER:** The following person is designated as Contract Manager, and will act as the contact point between the City and the Contractor during the term of the Contract:

Michael Roche

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(512) 322-6161

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michael.roche@austinenergy.com

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\*Note: The above listed Contract Manager is not the authorized Contact Person for purposes of the **NON-COLLUSION, NON-CONFLICT OF INTEREST, AND ANTI-LOBBYING Provision** of this Section; and therefore, contact with the Contract Manager is prohibited during the no contact period.

**CITY OF AUSTIN  
PURCHASING OFFICE  
SCOPE OF WORK  
SOLICITATION NUMBER: RFP NST0406**

**SCOPE OF WORK  
FOR  
PURCHASE OF NEW 1800-RPM CONDENSATE PUMPS AND MOTORS  
FOR  
SAND HILL ENERGY CENTER UNIT 5**

**1.0 PURPOSE**

City of Austin, Austin Energy (AE) requests proposals from Contractors qualified to manufacture, assemble, deliver and commission three (3) 1800-RPM Condensate Pumps and Motors for the Sand Hill Energy Center (SHEC) Unit 5A Heat Recovery Steam Generator (HRSG).

Sand Hill Energy Center (SHEC) Unit #5 operates three (3) vertical Condensate Pumps , Gould's model VIC-T, 2-stage, 3550-rpm, 300-HP, in a 1 X 1 combined-cycle configuration. A second combustion turbine (CT) and Heat Recovery Steam Generator (HRSG) addition is possible in the future, at which time the plant will then operate in a 2 X 1 configuration.

Because of poor reliability, Unit 5 operates two of the three pumps in parallel continually across the Unit's load range. The third pump serves as a standby spare. AE desires to operate one (1) pump by itself, up to Unit 5 base load condition (HRSG duct burner off). A second pump will be started when the duct burner is started, and the unit runs up to full-load with two pumps running.

The existing pumps have a high Suction Specific Speed and operate far away from Best Efficiency Point (BEP), resulting in shortened impeller life and excessive maintenance. Austin Energy (AE) desires to purchase new, slower speed pumps and motors (1800-rpm) to fit inside the existing pump barrels with minimal to no piping or foundation modifications. See Attachment A for existing pump curve and see Attachment B for pump/motor drawings.

AE desires to install two (2) new pumps initially, with the third pump installation occurring approximately two (2) weeks after commissioning and acceptance of the first two pumps.

AE desires to purchase pumps from manufacturer's that can be readily modified in the future, when and if, the second HRSG addition occurs.

SHEC is located at 1101 Fallwell Lane, in Del Valle, Texas 78617 approximately 5-miles southeast of Austin, Texas.

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**2.0 REFERENCE SPECIFICATIONS, CODES AND STANDARDS**

- 2.1 ISO Standard 1940-1 Balance Quality Requirements for Rotors
- 2.2 ASA STD 2-1975; ANSI S2.19-1975 Standard Balance Quality of Rotating Rigid Bodies
- 2.3 ANSI / HI 14.6-2011 Standard for Rotodynamic Pumps for Hydraulic Performance Acceptance Tests
- 2.4 ANSI/HI 9.6.1 Rotodynamic Pumps- Guideline for Net Positive Suction Head (NPSH) Margin
- 2.5 API 610- Vertical Turbine Pump
- 2.6 ASME Boiler and Pressure Vessel Code, Section VIII
- 2.7 ASME Boiler and Pressure Vessel Code, Section IX
- 2.8 ASTM A743 / A743M - 12 Standard Specification for Castings, Iron-Chromium, Iron-Chromium-Nickel, Corrosion Resistant, for General Application
- 2.9 ASTM A781 / A781M – 12b Standard Specification for Castings, Steel and Alloy, Common Requirements, for General Industrial Use
- 2.10 ANSI/HI 9.6.4 Rotodynamic pumps for Vibration Measurements and Allowable Values

**3.0 PERFORMANCE REQUIREMENTS** – Contractor shall provide a product meeting the following requirements:

- 3.1 Pump Rating
  - 3.1.1 DESIGN CONDITIONS (CURRENT 1-HRSG CONFIGURATION):
    - 3.1.1.1 Design condition #1: 1300-GPM / 550-TDH (Total Dynamic Head)
    - 3.1.1.2 Design condition #2: 960-GPM / 650-TDH
  - 3.1.2 Pumps and motors designed for Continuous Duty
  - 3.1.3 Parallel Operation required
  - 3.1.4 Located Outdoors in Del Valle, Texas
  - 3.1.5 Condensate:
    - 3.1.5.1 Clean condensate
    - 3.1.5.2 105-140 degree Fahrenheit (excursions to 160-degF)
    - 3.1.5.3 Specific Gravity 0.99
- 3.2 Other Performance Requirements
  - 3.2.1 No copper containing metals in contact with condensate pumpage
  - 3.2.2 New pump to fit existing barrel and rib sway plates
  - 3.2.3 Mechanical seal flush plan- match existing
  - 3.2.4 Preferred offer will match existing suction and discharge piping flanges with no modification

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- 3.2.5 Non-destructive examination (NDE) - provide supplier's standard examination technique(s) for new impeller castings. Prior to making casting repairs, notify AE in writing of the extent of repair and the proposed repair procedures / methodologies.
- 3.2.6 Weld repair casting cracks and hand-blend, per the applicable ASTM/ASME codes and standards. Document weld repairs with photographs. Apply proper post and pre-heat techniques when casting impellers and making repairs to defects.
- 3.2.7 Impellers dynamically balanced, per ISO 1940 G1.0, or 1W/N.
- 3.2.8 Pump capable of at least 5-% future head and flow increase by replacement of impellers with ones of larger diameter. Motor sized accordingly.
- 3.2.9 Design pump assembly such that it's natural frequency responses avoid the operating speed by an adequate safety margin
- 3.2.10 Stable head/capacity curve with continuous head rise from design rating to shutoff
- 3.2.11 Minimum 25-% head rise from design rating to shutoff
- 3.2.12 Impeller castings generally free from defects

**4.0 TECHNICAL REQUIREMENTS** – Contractor shall provide a product meeting the following requirements:

- 4.1 **Materials**
  - 4.1.1 Bowl - Ductile Iron or Cast Steel
  - 4.1.2 Suction Bell - Cast Iron
  - 4.1.3 Impeller - 316 Stainless Steel
  - 4.1.4 Column - Carbon Steel
  - 4.1.5 Shafts - 416 Stainless Steel, "pump shaft quality"
  - 4.1.6 Impeller Wear Ring - 316 Stainless Steel, integral with impeller
  - 4.1.7 Bowl Wear Ring - Vespel CR6100
  - 4.1.8 Stationary Bearings/Bushings - Vespel CR6100
  - 4.1.9 Discharge Head – Steel
- 4.2 **Pump Construction**
  - 4.2.1 Suction flange- 10 inch, 150 lb, ANSI raised face
  - 4.2.2 Discharge flange- 8 inch, 300 lb, ANSI raised face
  - 4.2.3 Flanged bowls and columns
  - 4.2.4 Pressure-containing parts in accordance with ASME code requirement
  - 4.2.5 Enclosed impeller type
  - 4.2.6 Integral impeller wear rings
  - 4.2.7 Replaceable bowl wear rings
  - 4.2.8 Replaceable bushings/bearings
  - 4.2.9 NPT pressure gauge connections (suction and discharge)
  - 4.2.10 Barrel vent to condenser

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- 4.2.11 Mechanical seal w/ quench and drain
- 4.2.12 Line shaft couplings, threaded-type
- 4.2.13 Bearings, pumpage lubricated
- 4.2.14 Column sway brace arms considered in design
- 4.2.15 Coupling , rigid adjustable spacer-type, balanced as assembly
- 4.2.16 Coupling guard
- 4.2.17 Motor orientation rotatable at 90-degree intervals about vertical centerline
- 4.3 Motor- Vertical, Solid Shaft, 1800-RPM,
  - 4.3.1 Motor HP requirements shall be determined and calculated by the vendor.
  - 4.3.2 Thrust bearing shall be designed to resist up thrust and down thrust forces experienced from shutoff to run out flow and during starting/stopping.
  - 4.3.3 See Exhibit D for further motor requirements

**5.0 CONTRACTOR REQUIREMENTS**

- 5.1.1 Provide field service and technical oversight during installation and commissioning at SHEC.
- 5.1.2 Coordinate the manufacture, delivery and commissioning to coincide with AE outage of March 19, 2016 – April 12, 2016.
- 5.1.3 Paint, prep, ship and insure pumps / motors; attach wood protective flange covers
- 5.1.4 Adhere to SHEC contractor work requirements while on-site (Exhibit C)
- 5.1.5 Perform testing, per ANSI/HI 14.6-2011
- 5.1.6 Perform hydrostatic test of pressure-containing components
- 5.1.7 Perform certified (non-witnessed) factory performance test
- 5.1.8 Perform mechanical vibration test
- 5.1.9 Perform NPSH-TYPE II test
- 5.1.10 Furnish test reports prior to delivery of the pumps/motors.

**6.0 SUBMITTALS AFTER CONTRACT AWARD – Contractor shall provide:**

- 6.1 Non Destructive Examination (NDE) results (with photographs) of impeller castings prior to delivery of the pumps/motors. Contractor will notify AE 5 business days prior to NDE testing.
- 6.2 Certified drawings showing pump construction details and materials prior to manufacture.
- 6.3 Foundation loads and moments prior to manufacture.
- 6.4 Five (5) – each operation & maintenance manuals for the pumps and motors
- 6.5 Field service rate sheet prior to installation.
- 6.6 Recommended spare parts list prior to installation.

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6.7 A projected schedule with milestones and delivery date.

**7.0 AUSTIN ENERGY RESPONSIBILITIES – AE will:**

- 7.1 Unload pumps/motors at Sand Hill Energy Center.
- 7.2 Install pumps /motors and connect piping and electrical.
- 7.3 Check alignment and adjust impeller lift (clearance).
- 7.4 Take vibration measurements during commissioning.
- 7.5 Provide flow and pressure measurements using existing (or test) instrumentation during commissioning.
- 7.6 Perform electrical baseline test.

**8.0 SCHEDULE**

- 8.1 Depending on lead times the Contractor shall manufacture and deliver the first two (2) pumps to be installed and commissioned during the tentatively planned Unit 5 outage of March 19, 2016 – April 12, 2016. These dates are subject to modification based upon AE operational needs.
- 8.2 Delivery of the third pump shall be approximately two (2) weeks after commissioning and acceptance of the first two pumps.

**9.0 ATTACHMENTS**

- 9.1 Exhibit A – Existing Pump Curves
- 9.2 Exhibit B – Existing Pump/Motor Outline and Sectional Drawings
- 9.3 Exhibit C – Sand Hill Energy Center Contractor Work Requirements
- 9.4 Exhibit D – Motor Specification

**CITY OF AUSTIN  
PURCHASING OFFICE  
PROPOSAL PREPARATION INSTRUCTIONS AND EVALUATION FACTORS  
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**1. PROPOSAL FORMAT**

Prefacing the proposal, the Proposer shall provide an Executive Summary, which gives in brief, concise terms, a summation of the proposal. The proposal itself shall be organized in the following format and informational sequence:

- A. **Business Organization**: State full name and address of your organization and identify parent company if you are a subsidiary. Specify the branch office or other subordinate element which will perform, or assist in performing, work herein. Indicate whether you operate as a partnership, corporation, or individual. Include the State in which incorporated or licensed to operate.
- B. **Authorized Negotiator**: Include name, address, and telephone number of person in your organization authorized to negotiate Contract terms and render binding decisions on Contract matters.
- C. **Cost Proposal**:
  - i. Complete Section 0705, Cost Proposal Sheet. Unless otherwise noted, these shall be the total and only costs to the City for performing the work specified in the Scope of Work (Section 0500).
- D. **Schedule**: Per the Scope of Work (Section 0500, part 8.1), the City prefers completion during the planned Spring Outage of 2016 (March 19, 2016 – April 12, 2016).
  - i. Describe your ability and commitment to meet this schedule.
  - ii. Submit a delivery schedule with the best estimate of dates and times. The schedule shall include an estimate of certified drawing submittals, manufacturing schedule and estimated delivery date.
- E. **Technical Solution & Program**: Detail your understanding of the requirement presented in the Scope of Work (Section 0500) of the solicitation and your solution/plan to accomplish the work. At a minimum, specifically provide or indicate the following:
  - i. Any deviations from any of the requirements stated in the above-referenced Scope of Work (Section 0500), including any “proposed equal” parts.
  - ii. Detailed Drawings of Pumps/Motors design
  - iii. Descriptive literature of pumps and motors, manufacturer/type, and materials of construction.
  - iv. Description of pumps/motors operation.
  - v. Description of how the proposed pump can be later modified (impeller trim, rebowl, etc.) to optimize efficiency for a second HRSG addition in the future.
  - vi. Describe your plan to accomplish this work.
- F. **Experience & Qualifications**: Describe only corporate experience related to performing the services specified in this solicitation. This solicitation requires that Proposers and all subcontractors have a minimum of 5 years of experience manufacturing, testing and delivering condensate pumps and motors. Engineering support members should also have detailed knowledge of condensate pump and

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motor testing and delivering. The submittals herein shall be evidence of this minimum experience. At a minimum, specifically provide:

- i. List of customer references to whom similar services of the same size and scope of this project have been provided, including company name, contact information, description of the services provided, date of work and contract value.
- ii. Detailed description of experience designing, manufacturing, testing and delivering condensate pumps and motors.

- G. **Exceptions:** Be advised that exceptions to any portion of the Solicitation may jeopardize acceptance of the Proposal.

If any exceptions are taken by a Proposer to any term or condition of this RFP, the Proposer must clearly indicate each specific exception taken, include a full explanation of the reason for said exception, and include any proposed language for any alternative term as a separate attachment to the Proposal, stating clearly in writing that the Proposer's Contract or Legal staff have reviewed and proposed all such terms in the Proposer's exceptions. The failure to identify exceptions or proposed changes with a full explanation and substitute language shall constitute acceptance by the Proposer of the Solicitation as proposed by the City. The City reserves the right to reject a proposal containing exceptions, additions, qualifications or conditions not called for in the Solicitation.

**2. ADDITIONAL PROPOSAL TERMS**

- A. **Local Business Presence:** The City seeks opportunities for businesses in the Austin Corporate City Limits to participate on City contracts. A firm (Offeror or Subcontractor) is considered to have a Local Business Presence if the firm is headquartered in the Austin Corporate City Limits, or has a branch office located in the Austin Corporate City Limits in operation for the last five (5) years. The City defines headquarters as the administrative center where most of the important functions and full responsibility for managing and coordinating the business activities of the firm are located. The City defines branch office as a smaller, remotely located office that is separate from a firm's headquarters that offers the services requested and required under this solicitation. Points will be awarded through a combination of the Offeror's Local Business Presence and/or the Local Business Presence of their subcontractors. Evaluation of the Team's Percentage of Local Business Presence will be based on the dollar amount of work as reflected in the Offeror's MBE/WBE Compliance Plan or MBE/WBE Utilization Plan. Specify if and by which definition the Offeror or Subcontractor(s) have a local business presence.
- B. **Proposal Acceptance Period:** All proposals are valid for a period of one hundred and twenty (120) calendar days subsequent to the RFP closing date unless a longer acceptance period is offered in the proposal.
- C. **Proprietary Information:** All material submitted to the City becomes public property and is subject to the Texas Open Records Act upon receipt. If a Proposer does not desire proprietary information in the proposal to be disclosed, each page must be identified and marked proprietary at time of submittal. The City will, to the extent allowed by law, endeavor to protect such information from disclosure. The final decision as to what information must be disclosed, however, lies with the Texas Attorney General. Failure to identify proprietary information will result in all unmarked sections being deemed non-proprietary and available upon public request.
- D. **Proposal Preparation Costs:** All costs directly or indirectly related to preparation of a response to the RFP or any oral presentation required to supplement and/or clarify a proposal which may be required by the City shall be the sole responsibility of the Proposer.

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**3. EVALUATION FACTORS AND AWARD**

A. **Competitive Selection**: This procurement will comply with applicable City Policy. The successful Proposer will be selected by the City on a rational basis. Evaluation factors outlined in Paragraph B below shall be applied to all eligible, responsive Proposers in comparing proposals and selecting the Best Offeror. Award of a Contract may be made without discussion with Proposers after proposals are received. Proposals should, therefore, be submitted on the most favorable terms.

B. **Evaluation Factors**:

- i. 100 points.
  - a. Technical Solution & Program (reference 1E) – 20 points
  - b. Experience & Qualifications (reference 1F) – 20 points
  - c. Schedule (reference 1D) – 20 points
  - d. Total Evaluated Cost (reference 1C) – 30 points
  - e. Local Business Presence (reference 2A) – 10 points

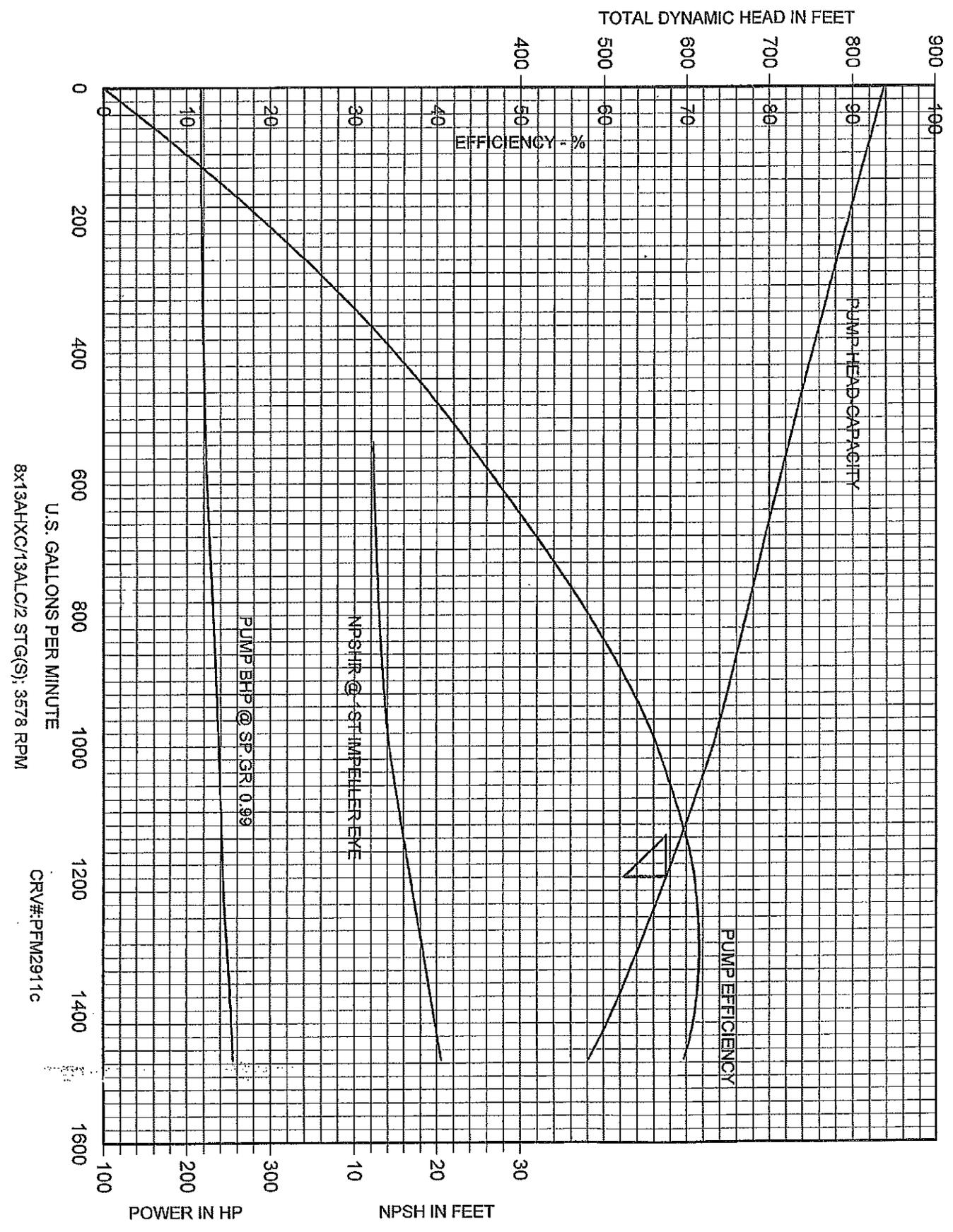
Team's Local Business Presence	Points Awarded
Local business presence of 90% to 100%	10
Local business presence of 75% to 89%	8
Local business presence of 50% to 74%	6
Local business presence of 25% to 49%	4
Local presence of between 1 and 24%	2
No local presence	0

- ii. Interviews (Optional). The City will score proposals based on items “a” through “e” above. The City may select a “short list” of Proposers based on those scores. Short-listed Proposers may be invited for interviews and/or demonstrations with the City. The City reserves the right to rescore short-listed proposals as a result of the interviews and to make an award recommendation on that basis. The City reserves the right to negotiate the actual contract scope of work and cost after submission. – 25 points

<p style="text-align: center;"><b>COST PROPOSAL SHEET</b>  <b>CITY OF AUSTIN</b>  <b>PURCHASE OF THREE (3) NEW 1800-RPM CONDENSATE PUMPS AND MOTORS FOR SAND HILL ENERGY CENTER UNIT 5</b>  <b>SOLICITATION:RFP NST0406      BUYER: NICOLE TURNER</b></p>					
ITEM	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	EXTENDED PRICE
1	<b>Design , manufacture, assemble, and deliver three (3) New 1800-RPM Condensate Pumps and Motors for Sand Hill Energy Center Unit 5</b> [Inclusive of all costs to perform the work specified in the Scope of Work (Section 0500)]	3	Each		
		<u><b>TOTAL</b></u>			
COMPANY NAME:			DATE:		
SIGNATURE OF AUTHORIZED REPRESENTATIVE:					
PRINTED NAME:					
EMAIL ADDRESS:					

*Attachment A*

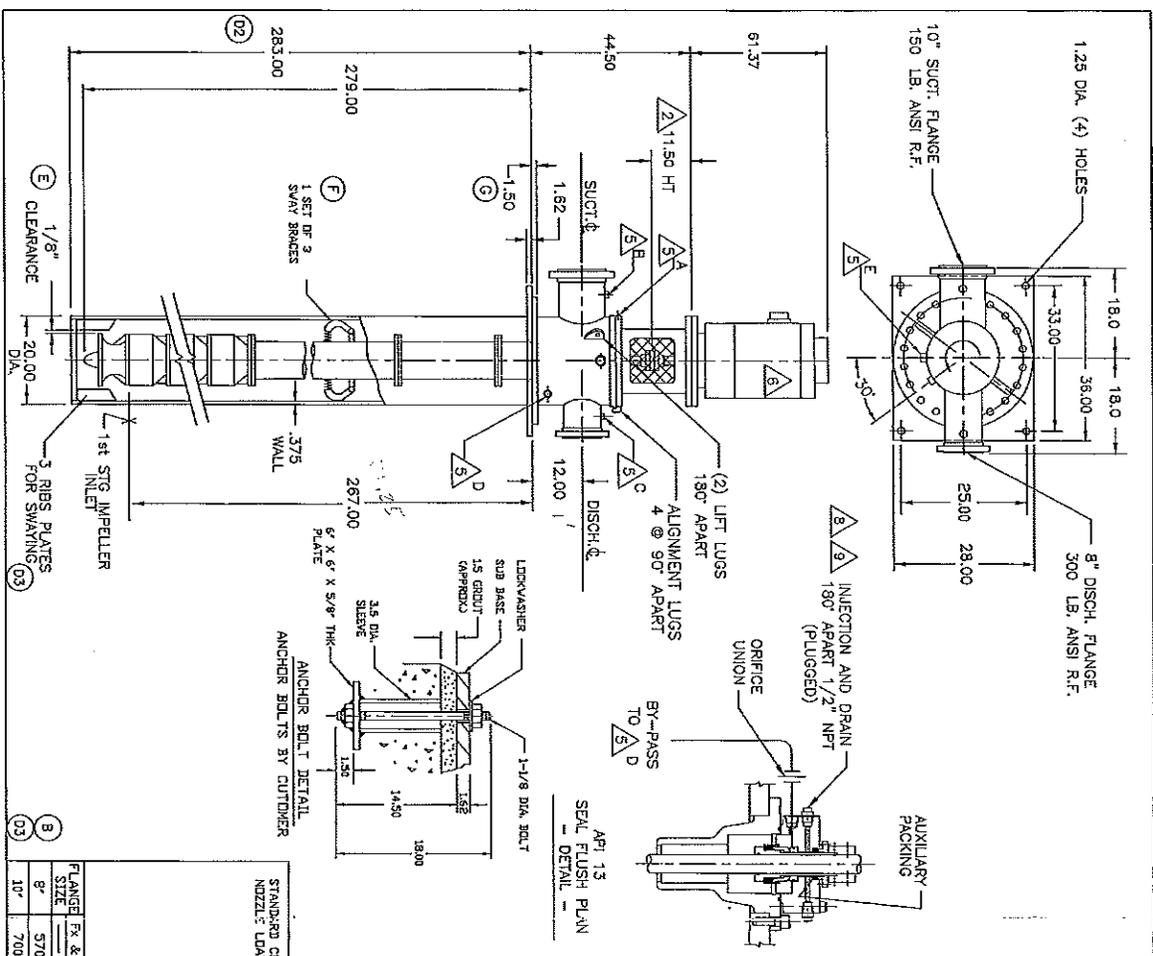
CUSTOMER: City of Austin/Austin Energy  
 P.O.# : PC117 11701001752  
 ITEM # : 2, Condensate Pumps GOULDS PUMPS S/O #: 312911



U.S. GALLONS PER MINUTE  
 8x13AHXC/13ALC/2 STG(S); 3578 RPM

CRV#:PFM2911c

Attachment B



CUSTOMER	500001PA,B,C	CONDENSATE PUMPS
TAG #S	PC 117 11701001752	
SERVICE	CONDENSATE PUMPS	
P.O. NO.	ITEM NO. 1	
NO. OF UNITS	3	
PUMP SIZE	13AHXC-13ALC	NO. OF STGS. 2
QPM	1200	T.O.H. 575
LIQUID	CONDENSATE	
SP. GR.	0.990	TEMP. 140° F.
COL. SIZE	8.0	BARREL 20.0
SHAFT	1.18	DIA.
SEAL	J. CRANE TYPE: 881	
CODE	XFI0951 (BSAFN)	
COUPLG. TYPE	ADJUSTABLE SPACER	
COUPLING GUARD	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
DRIVER MFG.	U.S.	
HP	300	RPM 3550
PH.	3	CYCLES 60
ENCLOSURE	WPII	FRAME 5007P
WEIGHT:	PUMP 2300	LBS.
	DRIVER 3600	LBS.
	BARREL 2251	LBS.
	TOTAL 7751	LBS.

NO.	NOTES
1	T.P.L. (TOTAL PUMP LENGTH) IS THE DISTANCE TO LOWEST PROJECTION ON PUMP ± 1.00"
2	HT - DISTANCE OF DRIVER FACE TO TOP OF HEADSHAFT.
3	ALL DIMENSIONS SHOWN ARE IN INCHES, UNLESS OTHERWISE STATED.
4	DRAWING IS NOT TO SCALE.
5	A - 3/8"-N.P.T.-MOTOR BASE DRAIN. B - 1/2"-N.P.T.-CONN. (PLUGGED) C - 1/2"-N.P.T.-CONN. (PLUGGED) D - 1/2"-N.P.T.-CONN. (PLUGGED) E - 1"-N.P.T.-BARREL VENT CONN.
6	DRIVER MAY BE ROTATED AT 90° INTERVALS ABOUT VERTICAL CENTERLINE. FOR DETAILS REFER TO DRIVER DIMENSION DRAWINGS.
7	BEFORE STARTING PUMP, IMPELLER MUST BE LIFTED 1.82"
8	SEE COUPLGS PUMPS ENG. A20337F "SEAL FLUSH PUMP CONDENSATE PUMP" RECOMMEND FOR CONDENSATE PUMPS.
9	EXTERNAL SUPPLY LINE BY CUSTOMER
10	THIS PUMP ASSEMBLY HAS BEEN DESIGNED SO THAT ITS NATURAL FREQUENCY RESPONSES AVOID THE SPECIFIED OPERATING SPEED (OR SPEEDS) BY AN ADEQUATE SAFETY MARGIN.
11	THE DESIGN HAS ASSUMED THE FOUNDATION TO BE RIGID. M.A.W.P. DISCHARGE = 675 P.S.I.G.

Q	SWITCH DIMS 1.50 & 1.62	P.S.	04-12-02
F	ADDED 1 SET OF 3 SWAY BRACES	P.S.	03-08-02
E	ADDED TIGHTENING TORQUE VALUES & RIBS	P.S.	02-13-02
D3	ADDED 10" LOADS/BEL RIBS	P.S.	01/09/02
D2	MOD. WAS 250 HP, BEL. WAS 280.00	P.S.	09/11/01
D1	MODEL WAS VIC-TIDH WAS 500 FT	P.S.	09/11/01
C	ADDED DETALS & TITL #, P.O.#	P.S.	09/11/01
B2	ADDED MOTOR DATA	P.S.	09/02/01
B1	WAS JCRANE TYPE: 809	P.S.	08/02/01
A1	WAS MODEL VIC-T	P.S.	08/02/01
LR	REVISION	BY	DATE

DO NOT USE FOR CONSTRUCTION UNLESS CERTIFIED

CERTIFIED BY P. SALAS DATE 08/11/01

TITLE OUTLINE MODEL VIC-T CONDENSATE PUMPS

8 X 10 X 13AHXC-13ALC - 2 STGS.

DRAWN BY P. SALAS DATE 07-28-01

DESIGNED BY P. SALAS DATE 08/11/01

SCALE S.O. NUMBER 312911

GOLDS PUMPS LIT INDUSTRIES





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**Sand Hill Energy Center  
Contractor Work Requirements**

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## SHEC CONTACTS

NAME	TITLE	PHONE
Lee Lewis	Plant Manager	512-972-9409
John Lalande	Plant Operations Superintendent	512-972-9456
Tim Youts	Plant Maintenance Superintendent	512-505-3720
Craig Smith	Plant Engineer	512-322-6477
Jake Spelman	Plant Environmental Health & Safety Coordinator	512-972-9450
Cheryl Martinets	Plant Administrative Assistant	512-972-9401
Daryl Fisher	Plant Stores Specialist	512-505-7595
Sam Garcia	AE Corporate Safety Specialist	512-482-5374
Plant Control Room (Staffed 24-7-365)		512-972-9451

## GENERAL

The Contractor shall comply with the requirements of this document unless otherwise directed in the body of the specification or contract to which it is attached. The Contractor shall comply with all plant rules and regulations including, but not limited to, the following:

- SHEC's access is via Fallwell Lane.
- Contractors shall sign in daily at the main office.
- All Contractor site office trailers shall be clearly marked and identified with the Contractor's company name.
- City Ordinance prohibits smoking in buildings and only allows smoking in designated areas.  
**SHEC designated smoking areas:**
  - 1) In front of the Administration Building
  - 2) A temporary smoking area may be designated on a case-by-case basis for extended projects, pending approval of Plant Management.

Smoking areas shall be kept clean at all times.

- There will be **NO** spitting on floors, in drains, in sinks, through gratings, or in trash cans.
- Alcohol, drugs, and firearms are **strictly forbidden** at the plant.
- Contractors shall provide all tools and supplies necessary to successfully complete the contracted job. Contractors **shall not** borrow any Austin Energy (AE) tools, equipment, vehicles, supplies, or personal protective equipment unless specifically allowed in the work contract or approved by the Plant O&M Superintendent.

## **EMERGENCIES**

In the event that an emergency situation arises, the SHEC control room should be contacted **immediately**. Any calls that have been made directly to Police, Fire Department, EMS, etc. shall be reported to the control room for coordination with Plant Security.

The control room will alert emergency personnel by contacting 911 and then use the plant two way radios and mass notification announcing system to announce the nature of the emergency as well as instructions. Three assembly areas have been established in case an evacuation is necessary. The primary assembly area is at the main gate. The secondary assembly area is the alternate entrance gate located at the north east corner of the plant property. The third assembly area is the area just west of Unit 4, near the south end of the switchyard. Do not leave the assembly areas until an "all clear" has been given and all employees have been accounted for.

## **SAFETY**

AE has Safety staff available by appointment or immediate contact by pager. *If any AE staff believes there is a safety violation, they are authorized to stop the Contractor's work at any time.* If any plant employee observes contractor employees working in situations of imminent danger, work will be ceased until the AE Project Manager and the Contractor can meet to alleviate the hazardous condition(s). Such work stoppage shall not relieve the contractor of any contract commitments, nor be a valid cause for a change order.

## **Codes and Standards**

The Contractor shall comply with all federal, state and local laws, and all standards, rules, administrative agency regulations and orders issued pursuant to such laws and regulations, including, but not limited to, the following:

- Occupational Safety and Health Administration (OSHA) Code of Federal Regulations, (CFR) title 29, U.S. Department of Labor
- NFPA 70E, National Electric Code 2012
- Environmental Protection Agency (EPA)
- Texas Commission on Environmental Quality (TCEQ)
- Texas Department of Health (TDH)

## **Safety Orientation**

Every Contractor employee shall attend a plant-specific safety orientation before they will be allowed to work. This orientation will take 30-45 minutes. To schedule safety orientations, Contractor shall contact the AE Project Manager who will arrange a time with the plant. This orientation is required of all Contractor personnel on an annual basis.

The Contractor, if necessary for the safety orientation, shall supply a language interpreter. All contract employees must have a valid social security number or work permit.

All Contractors will be issued either an AE Contractor Badge or an SHEC Visitor Badge, depending on the duration of the job. Contractor/visitor badges must be worn in a visible location at all times while on site for the duration of the job. If a Contractor is found on the job without a badge he/she may be asked to leave the site.

Any Contractor employee injured in the course of his/her work shall immediately report the injury to the AE Project Manager and Plant personnel. The Contractor shall provide a copy of their written accident reports, including his/her written investigation report, to the Plant Safety Specialist within 24 hours of the incident.

## Personal Protective Equipment

Contractor shall insure that all employees wear, at a minimum, hard hats, steel toe safety boots and safety glasses with side shields or goggles for personal protective equipment (PPE). Additional PPE requirements are as follows:

- Hard hats may be of any style and color except RED and ORANGE. The Owner reserves these colors for emergencies and visitors. The hard hats shall comply with ANSI Z89.1, Class A,B,C under OSHA 29 CFR 1910.135.
- Steel toe safety boots/shoes can be of any manufacture and shall comply with ANSI 41-1991 under OSHA 29 CFR 1910.136.
- Safety glasses (prescription or non-prescription) shall comply with the appropriate ANSI standard for the job being performed. (Welding, Cutting Grinding, General Use) under OSHA 29 CFR 1910.133. Flash glasses shall be worn in designated areas.
- Hearing protection shall be provided and used when working in noisy areas or on/near an operating unit (to include gas turbines). The protection factor of 25 NRR or greater shall be attained, under OSHA 29 CFR 1910.95.
- The Contractor shall supply and insure that employees have the correct type and style of gloves for the job they are performing.
- All personnel shall wear 100% cotton clothing including long pants appropriate shirts, etc. No shorts will be allowed.
- Safety Harnesses and fall protection must be used in compliance with OSHA 29 CFR 1926.502.
- If *ANY* work introduces a potential Arc Flash hazard, the Contractor must contact the AE project manager so that an Energized Electrical Work Permit can be completed, identifying Arc Rated PPE per the NFPA 70e (2012) Standard for Electrical Safety in the Workplace.

## Specific Safety Rules

The Contractor shall at all times adhere to Plant Safety rules for Lock-Out/Tag-Out (LOTO), confined space entry (CSE), and electrical safety work practices. Some of the site safety rules *exceed those required by OSHA*, and the Contractor may contact the AE Project Manager to find out what is expected under the Plant Safety Program. All other rules, as they apply, will also be adhered to at all times (e.g., fall protection, respiratory protection, arc-flash protection, scaffolding, trenching, etc.)

All equipment worked on will be properly locked out as per plant safety rules. All LOTO clearances shall be put in place by plant personnel. The Contractor shall work with plant operations to review the LOTO and insure that equipment is safely secured prior to starting work. The Contractor is responsible for providing his own lock and adding it to the lockbox related to the LOTO clearance. Under no circumstance shall the Contractor lock out equipment that is not included in a plant LOTO. The Contractor is required to sign on the plant LOTO and follow all plant LOTO rules and procedures. The Contractor can request that other pieces of equipment be locked out to make the work area safe.

## Respiratory Protection

The Contractor shall provide documentation of employee participation in a Respiratory Training Program that meets OSHA requirements if employees are to work in an atmosphere which will require the use of a respirator. The Contractor is responsible for selecting and providing the correct respirator for the atmosphere in which work is to be performed.

If a Self-Contained Breathing Apparatus (SCBA) is to be worn, the Contractor shall provide documentation of the employee's training with this device in addition to his documentation of OSHA-certified respirator training.

All documentation shall be provided to the AE Project Manager who will file originals and forward copies to the Plant Safety Specialist.

## Confined Spaces

The Contractor shall have an OSHA compliant Confined Space Entry Program. A copy of this program, and employee training certifications, shall be delivered to the AE Project Manager prior to beginning work in a confined space. The Contractor shall be responsible for air monitoring for their employees. The site will provide a Subject Matter Expert (SME) to assist in hazard evaluations prior to entry into a confined space. Plant personnel may periodically monitor atmospheric conditions in the confined space(s) where Contract Personnel are working. Plant personnel shall stop Contractor work in a confined space when atmospheric conditions or any other hazards are identified which were not addressed in the Entry Permit for that space. Work will not be allowed to resume until the hazardous condition(s) has been resolved to the satisfaction of Plant personnel.

## Equipment Operators

The Contractor shall provide documentation certifying that all of their equipment operators have been properly trained for the piece of equipment they are operating. This includes but is not limited to, fork lift operators, mobile crane operators, overhead crane operators, etc. This documentation shall be provided to the AE Project Manager who will forward it to the Plant Safety Specialist.

## Material Safety Data Sheets

The Contractor shall provide MSDS for all project chemical products prior to being brought on site. These sheets shall be given to the AE Project Manager who will forward to the Plant EHS Coordinator.

## **ENVIRONMENTAL AND WASTE ISSUES**

AE has Environmental staff available by appointment or immediate contact by phone. *If any AE personnel observe a potential environmental violation, they are authorized to stop the Contractor's work at any time.* If any plant employee observes contractor employees working in situations of imminent danger, work will cease until the AE Project Manager and the Contractor can meet to alleviate the hazardous condition(s). Such work stoppage shall not relieve the contractor of any contract commitments, nor be a valid cause for a change order. Specific environmental and waste requirements are as follows:

## Spills and Stains

- If **ANY** amount of oil or other chemical is spilled onsite, the Contractor must notify the EHS Coordinator or Shift Supervisor immediately. Stop work for large spills, or any spills near drains.
- The Contractor is responsible for cleaning up and containing any spills and/or stains related to contractor activities, including leaky hydraulic equipment or vehicle engines, oil/fuel spills, paint/solvent spills, other chemical spills, etc. Do not bring leaky equipment onsite.
- SHEC can provide a limited amount of spill cleanup materials and waste drums. Drums must be labeled immediately. Contact the EHS Coordinator with any questions.

## Waste Management

- All waste generated onsite must be managed by the Plant. No waste shall be left in unauthorized storage containers or disposal areas. All unused/new materials shall be taken with the Contractor upon completion of their work unless otherwise approved by Plant Management.
- Collection and disposal of large volumes of Contractor-generated trash shall be the responsibility of the Contractor and must be coordinated through the Plant EHS Coordinator prior to the start of the job without additional cost to AE.
- Waste collection containers shall be properly and clearly labeled to ensure proper hazard notification and segregation of hazardous materials from non-hazardous materials.
- Liquid waste must be kept separate from solid waste (e.g., used oil and oily rags shall be collected in separate drums). “Used Oil” drums and “Oily Rags” drums shall be clearly labeled, and should be stored in metal, 55-gallon drums which are staged on proper containment.
- Small volumes of domestic and non-hazardous trash may be disposed of in the existing, 30-yd Plant Trash roll-off box (located in the NE area of the Laydown Yard) with approval of the Plant EHS Coordinator and/or the Project Manager. SHEC may provide labeled trash drums, but as soon as they are full the Contractor is responsible for emptying the **contents of the drums** in the Plant Trash roll-off. Drums must be kept for re-use.
- Contractors **may not** take any waste offsite. Certain exceptions *may* apply (e.g., special recycling), but must be approved by the EHS Coordinator in advance.

## Recycling

The Contractor shall participate in plant recycling efforts as much as possible. A map showing all waste and recycling collection locations can be provided at the Plant Contractor Orientation. Specific waste disposal and recycling information can be obtained from the Plant EHS Coordinator.

The Plant has separate containers designated for recycling the following:

- **Cardboard** – Bright green, 8-yd dumpster near road at NE corner of the Laydown Yard.
- **Scrap metal** – Tan, 20-yd roll-off box under shelter structure, north of the Laydown Yard.
- **Raw wood** (unpainted/unstained lumber/pallets/crates, **with no hardware larger than nails**) – Olive green, 40-yd roll-off in the NE area of the Laydown Yard, east of Plant Trash roll-off.

Additionally, spent aerosol cans or spray cans must be collected separately from all other wastes for further processing by the Plant. Do not put spray cans in any other waste containers. Contact the EHS Coordinator with any questions.

## Materials Usage Logs

Upon job completion the contractor must complete logs (provided by AE) recording the duration of and the materials used for the following activities:

- **Painting**—application methods, types/volumes of paint, thinner used.
- **Welding**—methods, types/amounts of welding rods used.
- **Torch Cutting**—amount of acetylene used.
- **Blasting**—type/amount of blast media used.
- **Combustion-powered equipment** (e.g., portable work lights, compressors, welding machines, generators, etc.)—types/volumes of fuel used.

Please contact the Plant EHS Coordinator with any questions or concerns regarding existing or potential Environmental and Waste issues.

## WORK PRACTICES

### Work Hours

Normal plant working hours are Monday through Friday, 7:30 a.m. until 4:00 p.m. If a Contractor plans to work hours other than these, the AE Project Manager shall be notified in advance. This request will be forwarded to Plant Management for approval.

### Housekeeping

The Contractor shall be responsible for daily cleaning of their work areas. Prior to the end of each work day all trash shall be placed in proper receptacles and all areas swept and picked up.

### Damage to Existing Property

The Contractor shall take all precautions to protect existing buildings, grounds and equipment from damage of whatever nature arising from the Contractor's operations at the site. If damage is incurred, the Contractor shall make all necessary repairs or replacements without additional cost to the owner.

All areas of the station site assigned to the Contractor for their use shall be left clean. All grassy/dirt areas used for lay down and/or parking shall be left smooth and re-seeded as necessary prior to demobilization.

## UTILITIES / FACILITIES

### Compressed Air

Contractors shall provide their own compressors, hoses, connections and safety clips necessary to supply compressed air.

### Electrical Power

Both 120V and 480V power is available upon request. Plant staff requires three (3) working days notice to route and connect power to a single point for the Contractor's use. Request for electrical connection shall be made through the AE Project Manager. Plant staff will also disconnect this service at the end of the contract, following the same procedure.

## **Water**

Service (non-potable) water is available at various locations around the plant. The Contractor shall be responsible for connecting and routing necessary extensions. The Contractor shall provide all hoses/pipes, as needed for their use, and shall remove these upon project completion.

## **Facilities**

The Contractor shall provide the following for his/her employees:

- Drinking water
- Temporary toilets
- Break & eating areas (including microwaves, refrigerators, other appliances as needed)

Exceptions to these requirements may be made on a case-by-case basis for small projects, but Project Managers must obtain approval in advance from Plant Management in order for the exception to be granted.

## **ROADWAYS AND PARKING**

Parking space is in short supply. Passenger cars and light trucks **ONLY** will be allowed in the designated parking lot. All heavy trucks and equipment will have parking assigned prior to arrival.

The Contractor shall only use roads and parking areas within the plant area as assigned by the AE Project Manager. The Contractor shall thoroughly investigate all existing entry, exit, and roadways to ensure there is adequate accessibility.

The Contractor shall make all their employees aware of the **12 mph** maximum speed limit within the Plant.

## **STORAGE AND TEMPORARY BUILDINGS**

All storage and temporary buildings/office trailers required by Contractors shall be erected/placed by the Contractor at their own expense, with approval of the AE Project Manager, and shall be removed without cost to AE at the termination of their usefulness or termination of the job.

Outdoor space for storage of materials (lay down area) may be available to the Contractor in a location, agreed upon between Plant personnel and AE Project Manager. If assigned, this area will be kept clean and in an orderly fashion. The Contractor, prior to departure from the worksite, shall remove all excess materials from the site.

Small quantities of product requiring secondary containment may be accommodated at Plant locations with approval of the Project Manager, the Plant EHS Coordinator and/or Plant Management. In general, however, the provision and maintenance of secondary containment for stored products shall be the Contractor's responsibility.

## **COMMUNICATION**

Lines of communication shall be maintained at all times. The Contractor shall make all requests through the AE Project Manager who in turn will contact the appropriate Plant personnel.

## **ELEVATORS**

There is one elevator located on the Unit 5A Heat Recovery Steam Generator (HRSG) stair tower. This elevator provides personnel access to the top level of the HRSG. Contractors shall only use this elevator with prior permission from their plant contact.

This elevator is for personnel and light hand tools **ONLY**. There is a strict **two-passenger limit** that must be followed at all times. Contractors needing to lift or move materials shall provide their own lifting devices and associated equipment (forklift, crane, tugger, straps, cables, etc.).

## **MAIL, MESSAGES, AND TELEPHONES**

SHEC has phones and a fax machine in the front office that may be used by small Contractors and short duration jobs. Contractor mail, messages, and faxes received at the administrative office will be placed in location designated by the Plant Administrative Assistant. If the Contractor requires phone/fax services other than this or if on site for more than 30 days, the Contractor shall provide for their own services. There is a limited supply of phone/fax lines available on site. Requests for use of these lines shall be made through the AE Project Manager and Southwestern Bell Telephone.

## **DELIVERIES**

All Contractor deliveries to the Plant shall be coordinated in advance with the Plant Stores Specialist and shall be properly addressed with Contractor contact name on labeling. Deliveries not handled in this way may be refused by the Plant and returned to Sender. Contractor shall provide the Plant Stores Specialist with contact information which shall be utilized in notifying the Contractor of the arrival of a delivery. Contractors shall pick up deliveries within 24 hours of notification. Sand Hill has limited indoor warehouse storage space, and consequently small items received will be stored indoors only if space allows and for no more than 24 hours. All large items received will be stored outside. The Plant will receive and unload deliveries, but takes no further responsibility for storage and protection of these items.

## **SCHEDULE**

The Contractor shall submit a proposed work schedule to the AE Project Manager who will then get approval from the Plant personnel. Schedules with durations longer than two (2) weeks shall be submitted at least two (2) weeks before the Contractor moves on site. Work schedules of less than two (2) weeks shall be submitted at least one (1) week before moving onto the site.

The schedule shall show expected mobilization and demobilization dates and projected dates for all tasks concerned in the project. Updated schedules shall be made and submitted to AE Project Manager as necessary.

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1 GENERAL:

1.1 This specification covers the details for the supply of three (3) each, 1800 RPM, 3 phase, 4160 volt (4000 volt nameplate), solid shaft, 1.15 service factor, WPI or TEFC enclosure, vertical induction motors, frame 5007P.

1.1.1 Vendor shall provide pump curve and the expected system curves for 25, 50, 75 and 100 percent unit loads. From these results the pump motor HP rating shall be chosen such that it will have a 125 percent design margin.

1.1.2 Before Vendor commences manufacturing of the motors, Vendor shall provide hard and soft copies of motor design to Austin Energy (PPE) and wait for approval.

2 DETAILED SPECIFICATIONS:

2.1 Manufacturer of the electric motor shall construct the motor in accordance with the Austin Energy Approved motor data sheet that will be provided by Manufacture prior to build of the motor (see attached Appendix). Also, Manufacture shall construct the motor in accordance with the following specifications:

2.1.1 Codes and Standards:

2.1.1.1 Motor shall conform to applicable standards of ANSI, IEEE, and NEMA, except where modified or supplemented by these specifications. In case of conflict between any of the industry standards relative to manufacturing requirements covered in these specifications only by reference to the standards, the requirements of NEMA shall govern. All equipment shall be in accordance with the applicable requirements of Federal "Occupational Safety and Health Standards."

2.1.2 Service Conditions: Electric motor shall operate at its specified rating at:

2.1.2.1 Altitude of 400 feet above mean sea level

2.1.2.2 Barometric pressure of approximately 29.84 inches Hg

2.1.2.3 Ambient temperature range of -20 C to 40 C

2.1.2.4 Ambient relative air humidity of 0 to 95 percent (non-condensation)

- 2.1.2.5 The motor is to be installed outdoors. The vertical motor shall have ventilating passages constructed to minimize the entrance of rain, snow, airborne particles and prevent passage of a 0.75 inch diameter cylindrical rod. Additionally the normal path of the ventilating air which enters the electrical parts of the machine shall be so arranged so that there shall be no less than three (3) each abrupt changes in direction, none of which is less than 90 degrees. An area of low velocity in this air path system shall not exceed 600 feet per minute and shall be provided in the intake air path to minimize the possibility of moisture or dirt being carried into the electrical parts.
- 2.1.3 Ratings: Motor shall be in accordance with the attached motor Specification/Data sheet. This motor is to be used to drive the Sand Hill Energy Center (SHEC) U5 Condensate Pumps A, B and C. Motor furnished under this Specification shall have frame and dimensions to mechanically connect to and drive these pumps. Bidders shall submit a completed Motor Information Sheet and an outline drawing of their proposed motor with their bids.
- 2.1.3.1 Squirrel Cage Induction Motor (SCIM)
- 2.1.3.2 NEMA MG-1, MG-13,
- 2.1.3.3 4000V
- 2.1.3.4 60 Hz
- 2.1.3.5 HP rating (see section one)
- 2.1.3.6 Continuous duty with 1.15 service factor
- 2.1.3.7 Frame size 5007P
- 2.1.3.8 Motor Dimensions: Electrical Connections shall be located on motor frame such that pre-existing conduit and cable pulls for the following shall not require extension or modification:
- 2.1.3.8.1 Main Terminal Box
- 2.1.3.8.2 Water Cooling tube connection locations for water cooled bearing terminations
- 2.1.3.8.3 Thermocouple terminal boxes
- 2.1.3.8.4 Space heater terminal box
- 2.1.3.8.5 RTD terminal box
- 2.1.4 Temperature Rise: The temperature rise of the motor, when measured by the resistance method and when operated at 1.15 times rated load continuously in a 40 C ambient, shall not exceed 80 C (class B temperature rise, class F insulation).

This information is intended only for the person(s) to whom it is addressed and may contain confidential and/or privileged material. Any review, retransmission, dissemination, or other use of or taking of any action in reliance upon this information by persons other than those intended is prohibited.

2.1.5 Construction: Motor stator and rotor windings shall be copper.

2.1.5.1 Rotor and Stator Iron Laminations:

2.1.5.1.1 Stator and rotor lamination core plate shall have AISI insulation designation C5/C6 quality.

2.1.5.1.2 Iron cores shall be free of voids, punching stresses and distortions.

2.1.5.1.3 Vent duct spacers shall be I-beam type.

2.1.5.1.4 Core clamping pressure shall be such that a knife edge cannot be inserted between any laminations.

2.1.5.1.5 Rotor design shall have ventilating ducts axially with I beam type duct spacers. Machined OD of rotor cores shall have QC reports from manufacturer that determine that a dull machine tool has not smeared the laminations to one another.

2.1.5.2 Rotor:

2.1.5.2.1 Rotor shall be squirrel-cage design.

2.1.5.2.2 Rotor shall have a heavy interference fit between Core and Rotor or rotor core shall be keyed to the shaft, two (2) each located 180 degrees from each other to ensure machine symmetry.

2.1.5.2.3 Rotor shall be dynamically balanced after mounting on the shaft. Motor vibration shall not exceed the peak amplitude values given in NEMA MG 1 Part 7 standards when measured in accordance with those standards.

2.1.5.2.4 Rotor shall be adequately sized to avoid overheating during acceleration of the motor and driven pump.

2.1.5.3 Shaft:

2.1.5.3.1 Motor shaft shall be solid ANSI 4140 forged steel. Tempering strength shall be indicated in the motor data sheet.

2.1.5.3.2 Motor shaft shall be furnished with a corrosion resistant treatment, or shall be constructed of corrosion resistant material.

2.1.5.4 Stator:

2.1.5.4.1 All insulated windings shall have class F non-hygroscopic insulation systems. Motor shall have a class B temperature rise.

- 2.1.5.4.2 Motor stator windings shall be copper.
- 2.1.5.4.3 Where a sealed insulation system is specified, a minimum of two (2) vacuum pressure impregnation cycles with a final epoxy varnish coating shall be included. Sealed windings for random wound motors shall be tested in accordance with NEMA MG 1-1998 Section 20.18.
- 2.1.5.4.4 Coil to Coil Bracing shall be compression bracing via felt spacers.
- 2.1.5.5 Enclosures: Motor enclosure parts shall be made of cast iron, cast steel and welded sheet steel, or steel plates. Aluminum is not acceptable.
- 2.1.6 Nameplate: All motor nameplate data shall conform to NEMA MG-1-20.60 requirements. All motor nameplates and attachment pins shall be corrosion resistant metal. The following additional nameplate data shall be included:
  - 2.1.6.1 Manufacturer's identification number
  - 2.1.6.2 Frame size number
  - 2.1.6.3 Insulation System class designation
  - 2.1.6.4 Maximum ambient temperature for which motor is designed or temperature rise by resistance.
  - 2.1.6.5 Service factor
  - 2.1.6.6 Starting limitations, if any (cooling time constant running, cooling time constant de-energized).
  - 2.1.6.7 Direction of rotation and voltage sequence
  - 2.1.6.8 Weight
  - 2.1.6.9 Space heater voltage and watts
  - 2.1.6.10 Bearing identification
  - 2.1.6.11 Bearing lubrication detail
  - 2.1.6.12 Stator temperature alarm and trip
  - 2.1.6.13 Bearing temperature alarm and trip

- 2.1.7 Space Heaters: Motor shall be provided with space heaters. Space heaters shall be adequately sized to prevent condensation within the motor when the motor is idle for the aforementioned ambient conditions. The internal temperature shall not cause winding temperatures to exceed rated limit values nor cause thermal protective device "over temperature" indication when the motor is idle. Space heater leads shall be stranded copper with 600 volt insulation and shall include terminal connectors.
- 2.1.7.1 Space heater leads shall be brought out to a terminal block in a separate junction box. This box shall be positioned on the motor frame such that SHEC existing space heater conduit and wiring does not need to be moved or extended.
- 2.1.7.2 Heaters shall be provided with separate access panels to allow maintenance without removing any other parts of the motor.
- 2.1.7.3 Space heater ratings:
- 2.1.7.3.1 Single phase, two (2) wire - 120 volts ac (115 volts ac nominal)
- 2.1.7.3.2 Shall be no more than 300 watts
- 2.1.8 Starting Characteristics: Motor shall be designed for full voltage across the line starting and shall be capable of accelerating the driven pump from standstill to rated speed with 85 percent rated voltage applied to the motor terminals.
- 2.1.8.1 Starting characteristics shall have the following:
- 2.1.8.1.1 Under locked rotor conditions KVA per HP ratio shall be no less than 5.6 and no higher than 6.29 with the line voltage at terminals of the motor at 90 to 110 percent nameplate as pursuant to Code 'G' of NEMA MG-1 standard.
- 2.1.8.1.2 Motor shall be Nema Design B, Torque versus Speed characteristic.
- 2.1.9 Bearings: bearing shall be SKF manufactured.
- 2.1.9.1 Bearing temperature monitoring elements shall be type 'E' thermocouples.
- 2.1.9.2 Bearings shall have no significant resonance within +/- 15 percent of running speed multiples, up to its third harmonic, or between 40 to 60 percent of running speed. A significant resonance is defined as a peak which lies within 6 dB in amplitude (displacement) of the fundamental bearing housing resonance.
- 2.1.9.3 Bearing housing should be positively located by cylindrical precision dowels or piloted fits.

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- 2.1.9.4 Outboard End bearing: Tandem action, thrust bearing shall be water cooled as is the U.S. Motor bearing type D7322/7222BECBH (20 quarts oil).
  - 2.1.9.4.1 Motors outboard thrust bearing shall be rated for all the pump continuous and dynamic thrusts with a 1.25 per unit margin in its thrust rating.
  - 2.1.9.4.2 Oil level sight gages and means for adding and draining oil shall be provided.
  - 2.1.9.4.3 Bearings shall be of the type that permits inspection and replacement without removal of motor rotor.
- 2.1.9.5 Inboard End bearing: Equivalent to U.S. Motor bearing type 6219-J (Grease).
- 2.1.10 Temperature Detectors: Bearing and winding temperature detectors shall be furnished and installed complete in accordance with the applicable requirements of ANSI MC96.1, NEMA MG 1-20, and IEEE 119 standards. All temperature detectors shall be ungrounded with detector leads wired to terminal blocks furnished in the accessory terminal housing or to terminals furnished in the bearing detector heads or condulets. A grounding terminal for each temperature detector shall be included with the detector lead terminals. The grounding terminals shall be provided with internal wiring to a common ground connection in each terminal box, head or conduit.
  - 2.1.10.1 Stator Resistive Temperature Detectors (RTDs): There shall be two (2) per phase, 100 ohm platinum, 100 ohms at 0 C.
    - 2.1.10.1.1 Stator RTDs shall be equally spaced circumferentially in the motor winding slots.
    - 2.1.10.1.2 Stator RTD's shall be inserted between the top and bottom coils of the stator.
    - 2.1.10.1.3 Detectors shall be non-inductively wound, annealed after winding to ensure accuracy and stability, and be insensitive to vibration and strain.
    - 2.1.10.1.4 Each detector shall be furnished with three leads to eliminate errors due to lead resistance.
  - 2.1.10.2 Thermocouple type temperature detectors shall be single element, stainless steel sheathed, compacted magnesium oxide insulated type, with ungrounded measuring junctions. Thermocouples and extension wire shall meet the standard limits of error specified in ANSI MC96.1. Thermocouples shall be ISA Type E (Chromel-Constantan) thermocouples with Type EX extension wire.

- 2.1.11 Magnetic Center: Axial alignment of thrust bearing shall be such that the rotor is centered with the stator winding axially.
- 2.1.12 Sound Level: The average overall no-load sound pressure level, re 20 micropascals, produced by the motor shall not exceed 90 dBA free field at two (2) meters. Sound level measurements shall be in accordance with the requirements of IEEE 85, Test Procedures for Airborne Sound Measurement on Rotating Electrical Machinery.
- 2.1.12.1 In addition to the specified overall sound pressure level, single frequency siren type or other noise, regardless of cause or source, shall not exceed levels which are irritating or which can produce damage to the human ear.
- 2.1.12.2 Sound reduction baffles, mufflers, and materials shall be contained within the motor enclosure except external fan mufflers may be furnished on totally enclosed fan cooled motors.
- 2.1.13 Finish: All unfinished surfaces of the motor enclosure shall be cleaned to remove scale and foreign material, primed, and painted with an oil resistant, rust-inhibiting paint. Motor enclosure exterior finish color shall be Gray, ANSI 61. The stator core shall be protected from corrosion by not less than 2 coats of oil and weather-resistant varnish. All hardware, both internal and external shall be of non-corrodible materials or shall be treated to resist corrosion.
- 2.1.14 Terminal Boxes: Motor leads shall be brought out to a weatherproof terminal box to which the supply conduit may be connected. The lead entrance into the motor frame shall be sealed against moisture. Terminal box shall be at least one size larger than standard and shall provide not less than 12 inches of space below the connector for the building of stress cones. Separate terminal boxes shall be provided for motor leads, motor heater leads, and temperature devices.
- 2.1.15 Lifting Devices: Lifting devices shall be provided to aid in the installation and removal of the motor.
- 2.1.16 Grounding: Each motor shall be furnished with a grounding connector attached to the motor frame inside the motor lead terminal housing. The grounding connector may be lug or terminal type or other acceptable grounding connector. Ground cable size will be shown on the Motor Specification and Data Sheet.
- 2.1.17 Motor frame shall also have two grounding pads installed on diametrically opposite sides. The grounding pad shall consist of a corrosion resistant pad, containing two (2) NEMA spaced and sized threaded holes, welded or brazed to the motor frame.
- 2.1.17.1 The grounding connectors shall be a corrosion resistant metal pad, containing two (2) NEMA spaced and sized threaded holes (1/2 inch-13 threads per inch), welded or brazed to the motor frame.

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- 2.2 Testing Requirements: Testing of the motor shall be in accordance with the following specifications.
- 2.2.1 Routine Tests: The following routine tests shall be performed. Tests shall be performed in accordance with NEMA Standard MG1 and IEEE Standard 112, (Both standards as last revised).
    - 2.2.1.1 Current Balance check, no-load
    - 2.2.1.2 Locked-rotor current measured at rated frequency and fractional voltage
    - 2.2.1.3 Bearing temperature test
    - 2.2.1.4 Polarization index test
    - 2.2.1.5 Airborne sound pressure level measurements
    - 2.2.1.6 Air gap measurements
    - 2.2.1.7 Winding temperature detector dielectric and accuracy tests
    - 2.2.1.8 Winding resistance
    - 2.2.1.9 Vibration
  - 2.2.2 The polarization index, specified above, shall be determined from an insulation resistance-time curve corrected to 40 C, and shall be taken immediately prior to performing the final high potential ground test. Each stator phase shall be tested separately to ground with the other phases grounded. Motors shall be tested at not less than 5,000 volts dc. The ambient temperature, winding temperature, and relative humidity values shall be included with the recorded data. The polarization index shall not be less than 2.0.
  - 2.2.3 Winding temperature detectors (RTD's) shall be tested at 1,000 volts to ground and checked for accuracy immediately prior to performing the final winding dielectric tests. Accuracy shall be checked by measurement of the detector resistance when the windings are at room temperature.
  - 2.2.4 Routine tests results on the motor shall signed and dated by manufacturer testing technician.
- 2.3 Routine Test Reports: Routine test reports shall include the results of the routine tests and the following additional test and inspection results:
- 2.3.1.1 Bearing test and final temperature rise of bearings
  - 2.3.1.2 A statement that the bearings have been inspected and approved for shipment. Truck shipment shall not harm bearing integrity.
  - 2.3.1.3 Insulation resistance-time curve and polarization index

- 2.3.1.4 Final Value of motor sound pressure level including statement that there is no objectionable single frequency noise
  - 2.3.1.5 Final air gap measurements (single air gap)
  - 2.3.1.6 Winding temperature detector resistance
  - 2.3.1.7 Winding resistance
  - 2.3.1.8 Vibration
- 2.4 Complete Tests: Austin Energy Power Production Engineering reserves the right to require that complete tests be performed on the motor or to require the submittal of copies of test reports of complete tests performed previously on an electrically duplicate or prototype motor. The bidder's proposal shall include a list of charges for complete unwitnessed tests of the motor, for complete witnessed tests of the motor, and for copies of the reports of complete tests performed previously on an electrically duplicate or prototype motor. Electrically duplicate or prototype motor designs include those designs which are considered a "ratio-of-voltage" to the specified voltage.
- 2.5 Where complete tests, or reports of complete tests performed previously on an electrically duplicate of prototype motor are required, copies of the test reports shall be submitted with the reports of the quality control tests and inspections of the motor.
- 2.5.1 Test procedures shall be in accordance with IEEE 112 Test Procedure for Polyphase Induction Motors and Generators, as last revised and shall include:
    - 2.5.1.1 Temperature tests
    - 2.5.1.2 Full load current and slip
    - 2.5.1.3 No-load saturation curve
    - 2.5.1.4 Locked-rotor saturation curve (including locked-rotor torque, current, and power)
    - 2.5.1.5 Speed-torque and speed-current curves at rated voltage and at minimum specified starting voltage
    - 2.5.1.6 Efficiency at full, three-fourths and one-half loads
  - 2.5.2 Temperature tests shall be performed using the Superposed equivalent loading method or in the field where direct loading is not available at the factory. Any charges for manufacturer's service representatives to conduct a field test shall be listed in the bidder's proposal.
  - 2.5.3 Efficiency and power factor tests shall be performed.
- 2.6 Test Reports: Five certified copies of all test reports shall be furnished to the Contract Administrator.

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- 2.7 Field Testing: Austin Energy Power Production will perform initial field testing on the motor(s). PDMA motor test set will be used to get benchmark test results for future reference.

### 3 DRAWINGS AND SUBMITTALS:

- 3.1 Drawings shall be submitted which include the following information in addition to requirements of other sections of this specification.
- 3.2 Motor Dimensional Drawings: Motor dimensional drawings shall be submitted which include the following information:
- 3.2.1 Output shaft machining details and dimensions for coordination of machining and boring of shaft coupling
  - 3.2.2 Rotor weight and motor total weight
  - 3.2.3 Manufacturer, type, and manufacturer's part number for each bearing
  - 3.2.4 Instructions for maintaining insulated bearing integrity
  - 3.2.5 Complete nameplate data
  - 3.2.6 Clearance to remove rotor from stator
  - 3.2.7 The limits of travel for rotor end play from the bearing end float center position
  - 3.2.8 Special requirements, if any, for provision by others for control of shaft end float during starting, operating, or stopping of the motor
  - 3.2.9 Output shaft center line rise due to motor expansion in normal operation from idle cold to continuous full load condition
- 3.3 For 80, 100, 110 percent nameplate voltage manufacture shall provide:
- 3.3.1 Torque versus speed (shall include pump curve).
  - 3.3.2 Motor amps versus speed
  - 3.3.3 Safe stall time hot and cold
  - 3.3.4 Thermal damage curves
  - 3.3.5 Cooling time constant for running and not running. Modern motor relay protection requires the knowledge of this time constant.
  - 3.3.6 Calculated acceleration time
- 3.4 Rigging instructions and rigging accessories shall be included in the bid as extra options

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4

APPENDIX A

Prior to building motor, Manufacture shall provide the following information and wait for Austin Energy Approval. In addition to these ratings Manufacture shall submit dimensional drawings for approval.

MOTOR SPECIFICATION  
AND DATA SHEET

Type: \_\_\_\_\_

Synchronous Speed: \_\_\_\_\_ Rated Speed: \_\_\_\_\_

Horsepower: \_\_\_\_\_ Service Factor: \_\_\_\_\_

Voltage: \_\_\_\_\_ Phase \_\_\_\_\_ Frequency \_\_\_\_\_

Power Conditions: Voltage +/- 10 percent, Frequency +/- 5 percent,

Service: \_\_\_\_\_

Mounting: \_\_\_\_\_

Ambient temperature range: \_\_\_\_\_ minimum, \_\_\_\_\_ maximum

Environment Conditions: Outdoor, Relative humidity less than 95 percent (non-condensation)

Enclosure type: \_\_\_\_\_

Insulation: \_\_\_\_\_

Incoming Power Supply cable: \_\_\_\_\_

Ground Cable enter power lead terminal housing: \_\_\_\_\_

Bearing lubrication system: \_\_\_\_\_

Bearing type: \_\_\_\_\_

Starting voltage conditions: \_\_\_\_\_

Starting voltage conditions: \_\_\_\_\_

The motor shall be furnished with the following temperature detectors:

Bearings: \_\_\_\_\_

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Windings: \_\_\_\_\_

Torque, at 100% rated voltage shall be as follows:

Minimum Full Load Operating Torque \_\_\_\_\_

Minimum Locked Rotor Torque (Starting) \_\_\_\_\_

Minimum Pull-Up Torque \_\_\_\_\_

Minimum Breakdown Torque \_\_\_\_\_

Motor safe stall time shall exceed acceleration time at given load inertia by a minimum of at least five seconds.

The motor shall be suitable for four (4) starts, equally spaced, 20 minutes apart the first hour from a cold condition with one start per hour thereafter

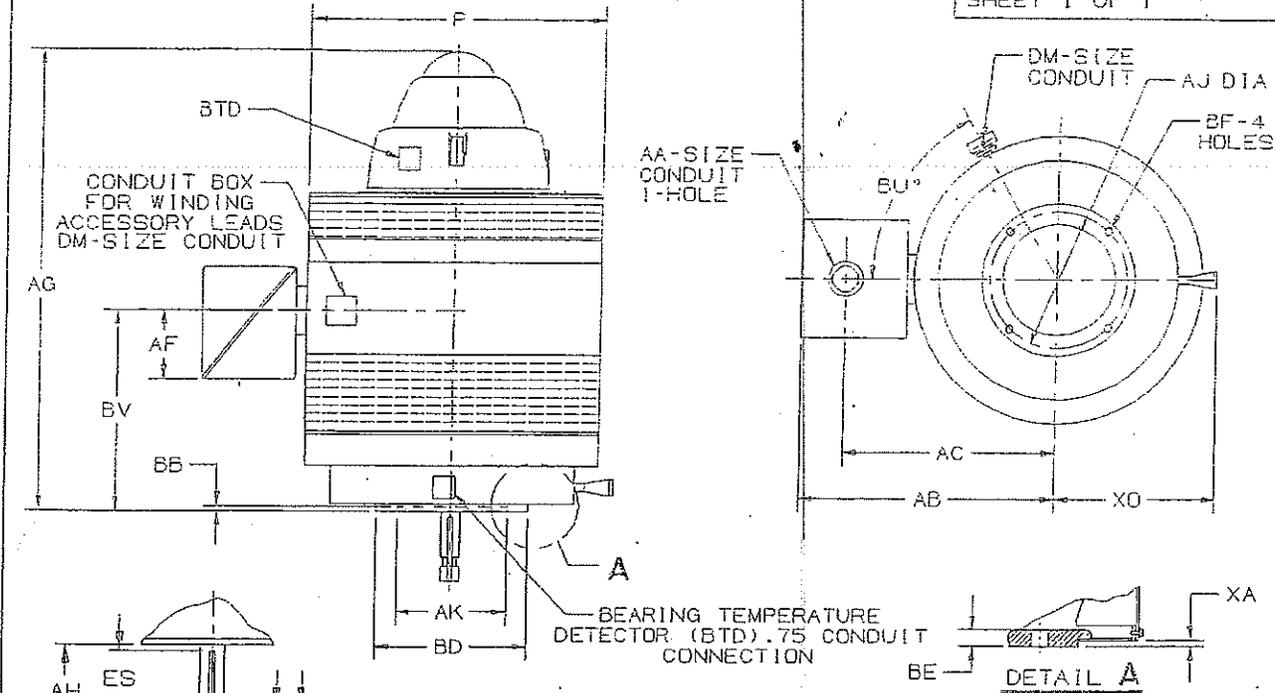
City of Austin / Austin Energy  
 CONTRACT: (RFP #CM01100014)  
 PROJECT: Sand Hill Energy Center  
 Combined Cycle Project  
 Units 5A & 5C  
 Station No. 2, Condensate Pumps  
 2911

# VERTICAL MOTORS

WEATHER PROTECTED TYPE II  
 FRAME: 5000P, PH  
 TYPE: HV-4

PRINT: 09-1827-007  
 EFFECTIVE: 23-AUG-01  
 SUPERSEDES: 13-SEP-00

SHEET 1 OF 1



ALL DIMENSIONS ARE IN INCHES

FRAME	P	AG	BV	XO
5006	42.25	56.31	19.38	24.75
5007		61.38		
5008		60.44		
5009		64.44	23.38	

FRAME	AJ	AK +.005	BB MIN	BD MAX	BE	BF	XA
5000P	14.750	13.500	.25	24.50	.88	.69	.13
5000PH				20.00			

FRAME	HP	VOLT	AA	AB	AC	AF	BU°	DM
5000	ALL	460	3-1/2 NPT	32.69	27.19	8.06	85	3/4 NPT
	ALL	2300						1 NPT
	ALL	4000						1-1/2 NPT

HP	POLES (RPM)				U	AH	ES	EU	EW	EX	SQ
	2(3600)	4(1800)	6(1200)	8(900)		±.062	MIN	-.005	+.002	-.005	KEY
HP	ALL	ALL THRU 300	ALL THRU 200	ALL THRU 150	2.125	4.500	3.00	1.750	.375	.750	.500
	--	350 THRU 450	250 THRU 300	200	2.375	5.000	3.50	2.000	.375	.750	.625
	--	500	350 THRU 400	250 THRU 300	2.625	5.000	3.50	2.250	.375	.750	.625

HP	POLES (RPM)				U	AH	ES	EU	EW	EX	SQ
	10(720)	12(600)	14(514)	16(450)		±.062	MIN	-.005	+.002	-.005	KEY
HP	ALL	ALL THRU 125	ALL THRU 100	ALL THRU 75	2.125	4.500	3.00	1.750	.375	.750	.500
	150	125 THRU 150	100 THRU 125	100	2.375	5.000	3.50	2.000	.375	.750	.625
	200	200	150	125 THRU 150	2.625	5.000	3.50	2.250	.375	.750	.625

1: ROUGH DIMENSIONS MAY VARY BY ±.125" DUE TO CASTING AND OR FABRICATION VARIATIONS.  
 2: CONDUIT OPENINGS MAY BE LOCATED IN STEPS OF 90°, STANDARD IS AS SHOWN WITH CONDUIT OPENING DOWN.

TOLERANCES	
FACE RUNOUT	.007 F.I.R.
PERMISSIBLE ECCENTRICITY OF MOUNTING RABBIT	.007 F.I.R.
PERMISSIBLE SHAFT RUNOUT	.003 F.I.R.
SHAFT END PLAY	.010 MAX.

09/1827



U.S. ELECTRICAL MOTORS  
 DIVISION OF EMERSON ELECTRIC CO.

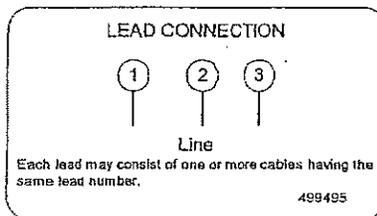
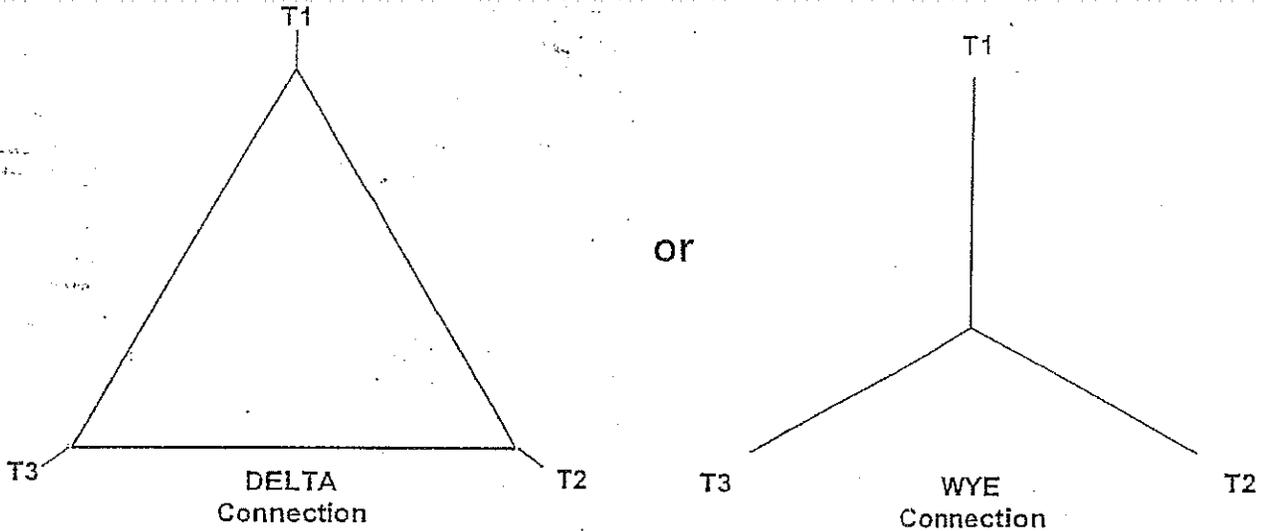


DO NOT USE FOR CONSTRUCTION PURPOSES UNLESS CERTIFIED



499495

### Motor Wiring Diagram



To reverse direction of rotation interchange connections L1 and L2.

Each lead may be comprised of one or more cables.  
Each cable will be marked with the appropriate lead number.

City of Austin / Austin Energy  
 CONTRACT: (RFP #CM01100014)  
 PROJECT: Sand Hill Energy Center  
 Combined Cycle Project  
 Units 5A & 5C  
 TAG: Item No. 2, Condensate Pumps  
 S.O. #: 312911

DATE: 2/27/86  
 REVISIONS: X736618, 96441, 179879, 284138  
 Connection Plate: 499495  
 Connection Decal: 912113

8333989 A

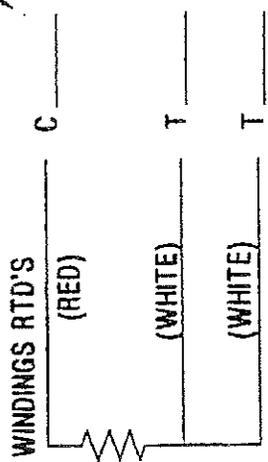
**WINDING RTD'S**

1. THERE ARE QTY-6 RESISTANCE TYPE TEMPERATURE DETECTORS (RTD) INSTALLED IN THE STATOR WINDING, 2 PER PHASE. REFER TO NAMEPLATE ATTACHED TO THE MOTOR ADJACENT TO ACCESSORY OUTLET BOX FOR RATING THE RTD'S.

2. DETECTORS ARE INSTALLED IN PHASES AS SHOWN.

PHASE	A	B	C
RTD NO.	1, 11	2, 22	3, 33

RTD NO.



City of Austin / Austin Energy  
 CONTRACT: (RFP #CM01100014)  
 PROJECT: Sand Hill Energy Center  
 Combined Cycle Project  
 Units 5A & 5C  
 TAG: Item No. 2, Condensate Pumps  
 S.O. #: 312911

**ACCESSORY LISTING**

QTY-6 3 LEAD RTD'S

ALT LET NOTICE NO.	DESCRIPTION OF CHANGE	DATE	BY	REVISION
-	REDRAWN ON CAD 8-10-89			
A	MOD 6-JUN-00 UPDATED			

U.S. ELECTRICAL MOTORS	CUSTOMER
DIVISION OF EMERSON ELECTRIC CO.	CONNECTION DIAGRAM
ST. LOUIS, MISSOURI	
DRWN 9-MAY-79, HEB	TYPE FRAME
RVSD 6-JUN-00, RWK	---
APPD 6-JUN-00, REP	---
	---

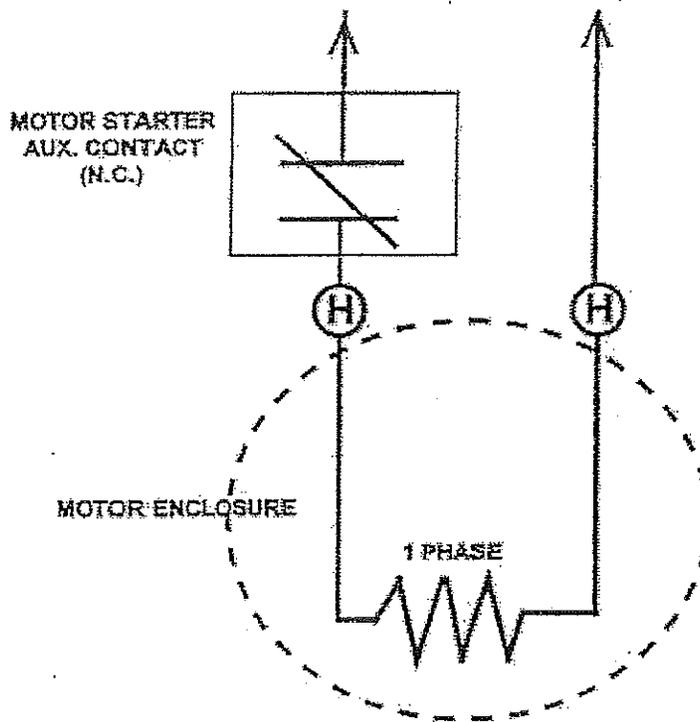
1	1	CDG	A	8333989	A
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970798

# SPACE HEATER CONNECTION DIAGRAM

SPACE HEATER LEADS MAY BE LOCATED IN EITHER THE MAIN OUTLET BOX  
OR IF SO EQUIPPED, AN AUXILIARY BOX



THIS EQUIPMENT IS SUPPLIED WITH ANTI-  
CONDENSATION HEATERS. HEATERS  
SHOULD BE ENERGIZED WHEN EQUIPMENT  
IS NOT OPERATING TO PROTECT UNIT AND  
VALIDATE WARRANTY.  
WARRANTY IS VOID IF HEATERS  
ARE NOT CONNECTED  
CONNECT THE H OR HEATER LEADS TO

115V VOLTS	288W WATTS RATING
------------	-------------------

SPACE HEATER NAMEPLATE (ON MOTOR)

City of Austin / Austin Energy  
CONTRACT: (RFP #CM01100014)  
PROJECT: Sand Hill Energy Center  
Combined Cycle Project  
Units 5A & 5C  
TAG: Item No. 2, Condensate Pumps  
S.O. #: 312911