



COVER PAGE

Bid Proposal #2130

SINGLE PHASE PADMOUNT TRANSFORMERS - ELECTRIC DISTRIBUTION

Sealed bids and electronic submitted bids for the above will be received until **10:00 AM CST, Tuesday, June 27, 2017**, and publicly opened in the City of Alexandria Council Chambers or Council Committee Room.

Please file bid by one of the following means:

Hand-Delivered or Express Delivery:

Attention: Donna Jones, City Clerk
City of Alexandria - City Hall
915 Third Street, First Floor
Alexandria, LA 71301
Phone: 318-449-5047

Mailed via USPS:

Attention: Donna Jones, City Clerk
City of Alexandria - City Hall
PO Box 71
Alexandria, LA 71309-0071

Electronic Bid Submission: Central Bidding

Pursuant to Louisiana R.S. 38:2212 B.(6)(a) through E. (1-7) and R.S. 38:2212.1 B.(4)(a), vendors/contractors have the option to submit their bids and bid bonds electronically. Bids and bonds to be filed electronically shall be posted with **Central Bidding** at www.centrauctionhouse.com (phone 1-225-810-4814). Registration will need to be completed prior to posting of bid.

Complete bid specifications are available for viewing and downloading at the City of Alexandria's website www.cityofalexandriala.com ; on the left hand side of the opening page, go to the heading "*Business*" then drop down to "*RFP/RFQ/Bids*"; the current bids will be listed for your convenience.

City of Alexandria Buyer Name: Christine Sims
Phone Number: (318) 441-6183
Fax Number: (318) 619-3414
E-Mail Address: Christine.sims@cityofalex.com



Joe C. Despino
Purchasing Manager

City of Alexandria

Purchasing Department
P.O. Box 71
Alexandria, Louisiana
71309-0071



Office: (318) 441-6180
Fax: (318) 441-6185

<p>Sealed bids will be received until 10:00 AM, Tuesday, June 27, 2017, and <u>publicly opened</u> in the Council Chambers or Council Committee Room.</p>	<p>City of Alexandria Bid Proposal #2130 Page: 1 of 18 Date Specifications Prepared: May 15, 2017</p>
<p><u>Bid Bond Requirements:</u> A bid bond or check for <u>N/A%</u> of the total amount of bid.</p> <p><u>Performance Bond Requirements:</u> In the event bid is accepted, a performance bond shall be required in the amount of <u>N/A%</u>.</p>	<p><u>Please file bid with the following:</u> <u>Donna Jones, City Clerk</u> City of Alexandria 915 Third Street P.O. Box 71 Alexandria, LA 71309-0071 Phone: 318-449-5047</p>

INTRODUCTION

SINGLE PHASE PADMOUNT TRANSFORMERS FOR INVENTORY STOCK

It is the intent of the City of Alexandria to secure pricing on Single Phase Padmount Transformers, for use by the City of Alexandria Electric Distribution Department. **Pricing shall be for a twelve (12) month period.** Quantities are estimates, not guaranteed.

All products shall be new and of current manufacture. Quoted prices shall be for a complete unit ready for use. Each unit shall be equipped with manufacturer's equipment and accessories which are included as "standard" in the advertised and published literature for the unit. No such item of equipment shall be removed or omitted for the reason that it was not specified in the bid documents.

All bid prices shall included any and all freight charges. All products shall be F.O.B., freight pre-paid to City of Alexandria Electric Distribution Department, 1015 North Third Street, Alexandria, LA 71301. All transformers shall be warranted for one (1) year from date of installation or eighteen (18) months from date of delivery, whichever comes first.

Completed bid should be returned as issued by the City of Alexandria with ALL PAGES intact and all specification response columns filled in. Incomplete columns or missing pages, to include addendum pages, may result in the bidder's (or proposer's) entire bid being rejected.

Questions and/or clarifications of bid specifications and submittals for "or equal" manufacturers are to be in written form, either mailed, faxed or e-mailed to the attention of Christine Sims, City of Alexandria – Purchasing Department, P.O. Box 71, Alexandria, LA 71309-0071; Fax #318-619-3414; e-mail; Christine.sims@cityofalex.com and must be received by close of business on Thursday, June 15, 2017.

**CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
SINGLE PHASE PADMOUNT TRANSFORMERS FOR INVENTORY STOCK**

GENERAL CONDITIONS FOR BIDDERS - PLEASE READ CAREFULLY

1. Pursuant to LA R.S 38:2212.1. C.(1)(2), any manufacturer's preference in this proposal is descriptive, but non-restrictive, and is used only to indicate minimum requirement for type, grade and quality unless otherwise specified.
2. Pursuant to LA R.S. 38:2212 B.(1), the provisions and requirement of this bid shall not be considered as informalities and shall not be waived by the City of Alexandria. Therefore, conditions and specifications on this bid form shall be strictly enforced and any and all alterations, deviations, and non-compliance to said conditions and specifications, either on the bid form or by separate attachment, shall be grounds for immediate disqualification.
3. Preference shall be given to bidders quoting F.O.B. Destination (the City of Alexandria using department), FREIGHT PREPAID, unless otherwise requested.
4. Each bidder shall submit his proposal on the proposal form furnished by the City of Alexandria Purchasing Department. The complete bid package must be returned as issued by the City with all pages intact and all specification response columns filled in. Incomplete columns or missing pages, to include addendum pages, shall result in the vendor's entire bid package being rejected.
5. Literature, brochures, and other related paperwork attached to the bid should be identified with the name of the bidder and bid item number.
6. In case of a mathematical discrepancy between unit price and extensions, the unit price shall prevail.
7. Pursuant to LA R.S. 38:2212 F., the bid specifications may contemplate a fixed escalation or de-escalation in accordance with the United States Bureau of Labor Statistic's Consumer Price Index or the Producer Price Index. Bids based on specifications which are subject to a recognized escalation index shall be legal and valid for any item of a public work, at the discretion of the City.
8. Pursuant to LA R.S. 38:2212.1. F., any public procurement unit may participate in a cooperative purchasing agreement with the City of Alexandria to acquire quantities of the above listed items under a contract with the City of Alexandria for items awarded by public bid, pursuant to the cooperative purchasing provisions of Part VII of Chapter 17 of Subtitle III of Title 39 of the Louisiana Revised Statutes of 1950, R.S. 39:1701 et seq.
9. The City of Alexandria reserves the right to award by item or by total bid, unless otherwise specified in the bid specifications. (Price(s) should be itemized.)
10. All erasures or corrections on the bid form must be initialed and the City of Alexandria may rely on the apparent authority represented by the initials.
11. The City of Alexandria reserves the right to reject for cause any and all bids or parts of bids, or accept bids most beneficial to the City.

**CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
SINGLE PHASE PADMOUNT TRANSFORMERS FOR INVENTORY STOCK**

General Conditions for Bidders - Please Read Carefully (Continued)

12. Any bid submitted which contains additions, conditional or alternate bids, or irregularities which may make the proposal incomplete, indefinite, or ambiguous as to its meaning, thus requiring clarification after the specified date and time of bid opening shall be rejected.
13. Bids shall be opened publicly in the City Council Chambers or Council Committee Room.
14. Cash discounts may be accepted, but SHALL NOT be considered in making award.
15. Regarding a bid for purchase of materials, supplies or services, not to include construction of any public works, a written notice of acceptance mailed or otherwise furnished to the successful bidder shall result in a binding contract without further action by either party.
16. When any bid is accepted for the construction or doing of any public works, a written contract shall be executed by and between the City of Alexandria and the Contractor. No contract shall be binding upon the City until it has been executed by the City and delivered to the successful bidder. Should the bidder to whom the contract is awarded fail to execute the contract, the award shall then be made to the next lowest responsible bidder, or re-advertised for public bid, said decision to be in the sole judgment of the City of Alexandria. This action may result in the loss of bidding privileges for a period of one (1) year.
17. The City of Alexandria shall schedule for payment the invoices for articles or services purchased under this bid within thirty (30) days after due and proper delivery accompanied by invoice.
18. The City of Alexandria is exempt from all sales taxes. A sales tax exempt form shall be furnished by the City of Alexandria Purchasing Department, if requested.
19. Bidder(s) awarded item(s) by the City of Alexandria shall be responsible for supplying all products at the awarded price(s). Failure may result in the City's cancellation of the remaining items awarded.
20. Regarding Service Contracts and Procurement Contracts, the terms of the contract shall be binding upon any and all parties involved until goods and supplies are delivered, services have been rendered, and/or work has been completed and accepted by the Mayor on behalf of the City of Alexandria and all payments required to be made to the Contractor have been made. However, a contract may be terminated under any and all of the following conditions:
 - (a) By mutual agreement and consent of either party upon thirty (30) days written notice to the other party;
 - (b) By the Mayor, on behalf of the City of Alexandria, as a consequence of the failure of the Contractor to comply with the terms and conditions of the contract or the progress or quality of work to be performed in a satisfactory manner, proper allowance being made for circumstances beyond the control of the Contractor; or
 - (c) By satisfactory completion of all services and obligations described in the contract.

**CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
SINGLE PHASE PADMOUNT TRANSFORMERS FOR INVENTORY STOCK**

General Conditions for Bidders - Please Read Carefully (Continued)

If the contract is terminated for any of the terms and conditions authorized in sub-paragraph (b) above, Contractor shall be formally notified in writing by the City of Alexandria Purchasing Department by means of certified mail informing him of cancellation of the contract, giving specific reasons for said cancellation. Contractor shall have the right to appeal to the City Council within ten (10) days from the date that said notification is placed in the U.S. Mail. Contractor's appeal shall be accomplished by means of a letter addressed to the City Council and delivered to the City Clerk, stating that an appeal to the decision of cancellation is desired. The City Council shall thereafter hold a hearing on the appeal, giving all parties the opportunity to present any and all evidence concerning the decision of cancellation. After hearing the appeal, the city Council may, by a majority vote, sustain, modify, or reverse the findings for said decision and shall provide, if requested by Contractor, a written determination of its findings.

21. Contractors submitting bids for Public Works construction projects in excess of \$1.00 must show his Contractor's License Number on the front of the bid envelope, except for certain projects for which a Contractor's License Number is not required by the State Contractor's Licensing Board. Failure to comply with this directive shall result in automatic bid rejection, furthermore, any Contractor who submits a bid for a type of construction for which he is not properly licensed shall be acting in violation of LA R.S. 37:2163, and shall be subject to all provisions for violation and penalties thereof. Contractors who are owned by, and are submitting a bid as a subsidiary of a parent company, whose name is listed in the State of Louisiana's Roster of Licensed Contractors, may do so by including a letter of proof of ownership from the parent company with the submitted bid package. The letter must be signed as per LA R.S. 38:2212 B.(5)(a)(b)(c) (see Item #22 below).

22. All bids submitted via USPS (registered or certified), overnight courier or hand delivered, shall be signed by hand and in ink by an authorized company representative per LA R.S. 38:2212 B.(5)(a)(b)(c), which states:

(c)(i) Evidence of agency, corporate, or partnership authority shall be required for submission of a bid to the division of administration or the State of Louisiana. The authority of the signature of the person submitting the bid shall be deemed sufficient and acceptable if any of the following conditions are met:

(aa) The signature on the bid is that of any corporate officer listed on the most current annual report on file with the Secretary of State, or the signature on the bid is that of any member of a partnership or partnership in commendam listed in the most current partnership records on file with the Secretary of State.

(bb) The signature on the bid is that of an authorized representative of the corporation, partnership, or other legal entity and the bid is accompanied by a corporate resolution, certification as to the corporate principle, or other documents indicating authority which are acceptable to the public entity.

(cc) The corporation, partnership, or other legal entity has filed in the appropriate records of the Secretary of State in which the public entity is located, an affidavit, resolution, or other acknowledged or authentic document indicating the names of all parties authorized to submit bids for public contracts. Such document on file with the Secretary of State shall remain in effect and shall be binding upon the principal until specifically rescinded and canceled from the records of the office.

**CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
SINGLE PHASE PADMOUNT TRANSFORMERS FOR INVENTORY STOCK**

General Conditions for Bidders - Please Read Carefully (Continued)

23. In-State preferences shall not apply to procurements involving federal funds.
24. Pursuant to LA R.S. 38:2212 O.(2)(a)(b), any modifications of plans and specifications will be made through an addendum. No addendum shall be issued within seventy-two (72) hours of the bid opening, excluding weekends and legal holidays, without the extension of the bid opening date. An extension of at least seven (7) but no more than thirty (30) working days is required but, re-advertising is not required. The addendum shall be transmitted by any one of the following methods: (1) facsimile transmission; (2) e-mail; (3) by hand; or (4) posted on the City of Alexandria's website (www.cityofalexandria.com) and posted on Central Bidding's website (www.centralauctionhouse.com) if applicable.
25. All Federal Transit Administration (FTA) funded procurements, including operating assistance funding contracts, are to follow the *Master Agreement*, to include all applicable federal clauses.
- a. Any bidder that is found listed on the Federal Government's *System for Award Management* (SAM) website, at www.sam.gov/portal/sam , under the advanced search feature for *Excluded Parties List System* (EPLS), shall automatically be rejected for the award of this bid, by Category and/or in its entirety. This applies to any portion of the bid that is a procurement funded by FTA.
26. Under the City's *AFEAT (Alexandria Fairness, Equality, Accessibility, and Teamwork Program)*, participation by minority and/or disadvantaged business enterprise firms is encouraged. The *AFEAT* Program should be inquired about through the Division of Finance.

**CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
SINGLE PHASE PADMOUNT TRANSFORMERS FOR INVENTORY STOCK**

Alexandria Fairness, Equality, Accessibility and Teamwork Program (AFEAT)

Dear Vendor:

Under the City's *AFEAT (Alexandria Fairness, Equality, Accessibility, and Teamwork Program)*, participation by minority and/or disadvantaged business enterprise firms is encouraged. The AFEAT Program should be inquired about through the Division of Finance. The goals for qualifying disadvantaged, minority and female owned business in the use of professional service agreements with prime contractors will help effectuate the goals of increasing: the competitive viability of small business, minority, and women business enterprise by providing contract, technical, educational, and management assistance; business ownership by small business persons, minority persons, and women (including professional service opportunities); and the procurement by the City of professional services, articles, equipment, supplies, and materials from business concerns owned by small business concerns, minority persons, and women.

Prime contractors offering subcontracting should take specific action to ensure that a bona fide effort is made to achieve maximum results towards meeting the established goals. Primes shall document efforts and shall implement steps at least as extensive as the following in a good faith effort to reach or exceed the established goals:

- A. Establish and maintain a current list of minority and female owned businesses in Alexandria, in Rapides Parish, and in the State of Louisiana.*
- B. Document and maintain a record of all solicitations of offers for subcontracts from minority or female construction contractor and suppliers in Alexandria, in Rapides Parish, and in the State of Louisiana.*
- C. Secure listing of minority and women owned businesses from the City of Alexandria Purchasing Department, the Central Louisiana Business Incubator, and the State of Louisiana Department of Minority Affairs.*
- D. Participate in associations which assist in promoting minority and women owned businesses such as the Central Louisiana Business League, the Central Louisiana Business Incubator, and the Entrepreneurial League System.*
- E. Designate a responsible official to monitor all activity made in the effort to achieve or exceed the established goals; record contacts made, subcontracts entered into with dollar amounts, and other relevant information.*

For more information on AFEAT and the City of Alexandria's Diversity in Action Initiative, and to explore a local and statewide directory of minority businesses, please visit www.diversityinaction.org.

Should you have any questions or comments, please do not hesitate to contact our Finance Department at 318-449-5091 or our Purchasing Department at 318-441-6180.

Sincerely,

City of Alexandria

**CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
SINGLE PHASE PADMOUNT TRANSFORMERS FOR INVENTORY STOCK**

BID SPECIFICATIONS

SCOPE: The following bid specifications are to be used as minimum and maximum standards for SINGLE PHASE PADMOUNT TRANSFORMERS, for use by The City of Alexandria Electric Distribution Department for inventory stock. All quoted products shall either meet or exceed the following specifications.

Unless otherwise stated, the use of manufacturer's name and product numbers are for descriptive purposes and to establish general quality levels only, they are not intended to be restrictive.

Prospective bidders are required to state exactly what they intend to furnish, otherwise, it is fully understood that they shall furnish all items as stated. Bidder should indicate in the space provided below, under "*Bidder's Response*:", the necessary information to indicate he/she is conforming with the bid specifications for each item as written. If Bidder is in complete compliance with each bid specification item as written, please write "Comply" in the space provided; if not, please indicate in this space, the necessary information on the product you are proposing. Each specification response is necessary to ensure the proper evaluation and tabulation of this bid. If each "*Bidder's Response*" section is not filled in or completed, your bid may be rejected.

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Bidder's Response:

1. General Requirements

1.1 This specification covers the general electrical, dimensional, and mechanical characteristics of the single phase, 60 Hertz, mineral oil filled, self cooled, PADMOUNT type distribution transformer, rated 25 kVA through 167 kVA.

1.2 All characteristics, definitions, terminology, voltage designations and tests, except as otherwise specified herein, shall be in accordance with the latest revisions of American National Standards Institute (ANSI) Standards C57.12.25, C57.12.70, C57.12.80; American Society of Testing and Materials (ASTM) Standard D877; Institute of Electrical and Electronic Engineers (IEEE) Standards ANSI/IEEE Standard 462 (ANSI C57.12.00), ANSI/IEEE Standard 386 (ANSI C119.2) and ANSI/IEEE Standard 262 (ANSI C57.12.90); and National Electrical Manufacturers Association (NEMA) Standards SG-P1/TR-P8 and NEMA 107. The order of precedence for conflicting requirements shall be this specification, ANSI Standards, IEEE Standards, ASTM Standards and NEMA Standards.

1.3 All transformers and transformer parts shall be new. No re-manufactured or rebuilt transformers shall be considered for evaluation. No used or refurbished parts shall be accepted.

1.4 Transformers must be equipped with Internal Fault Detectors

**CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
SINGLE PHASE PADMOUNT TRANSFORMERS FOR INVENTORY STOCK**

(IFD'S).

SPECIFICATIONS (Continued)

Bidder's Response:

1. General: (Continued)

1.5 Award will be based on price and reasonable delivery. The City of Alexandria has defined "reasonable delivery" as being between twelve (12) and twenty (20) weeks.

1.6 Bids will be evaluated and awarded in the preferential order listed below:

1.6.1. Lowest price, assuming the bidder meets the "reasonable delivery" lead time.

1.6.2. In the event the apparent low bidder **exceeds** the "reasonable delivery" lead time, award will be made to the next lowest bidder that meets the reasonable lead time.

1.6.3. In the event **no** bidder(s) meet the "reasonable delivery" lead time, award will be made on the basis of price only.

1.7 **All prices submitted shall be firm. NO escalation clause will be considered.**

2. Ratings

2.1 High voltage windings and insulation shall be the following:
12470/7200 Grd/Y Insulation Class: 15 kV BIL: 95 kV

2.2 Low voltage windings and insulation shall be the following:
240/120 Volts Insulation Class: 1.2 kV BIL: 30 kV

2.3 Transformers shall be provided in OA rated sizes 25, 37.5, 50, 75, 100, 167. The kVA ratings are continuous and based on not exceeding either a 55° C average winding temperature rise or an 80° C hot spot temperature rise above 40° C ambient. Insulating oil at rated load shall not exceed 65° C when measured near top of tank.

2.4 Dielectric test levels shall be in accordance with ANSI/IEEE Standard 462 (ANSI C57.12.00).

2.5 Transformer impedances shall be as follows:

**CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
SINGLE PHASE PADMOUNT TRANSFORMERS FOR INVENTORY STOCK**

25 – 167 kVA 1.7% Minimum 3.0% Maximum
SPECIFICATIONS (Continued)

Bidder's Response:

2. Ratings (Continued)

2.6 Transformer kVA ratings shall be permanently stickered or stenciled on front of the unit in 2½ inch, minimum, yellow numbers.

3. Construction

3.1 The transformer tank and the terminating compartment shall be assembled as an integral unit, tamper resistant and weather resistant and suitable for mounting on a pad without additional housing, fencing or other provisions for making the unit safe. There shall be no other screws, bolts or other fastening devices which are externally removable. There shall be no openings through which foreign objects such as sticks, rods, or wires (#14 AWG or larger) might be inserted to contact live parts.

3.2 A suitable means for padlocking the compartment door shall be provided. Additionally, a recessed captive 0.50 inch penta-head bolt with NC Class 2 threads shall be provided. All requirements of ANSI C57.12.25-1981, section 6.1.3 shall be met.

3.3 The tank shall be able to withstand a minimum pressure of 7 psi without permanent distortion.

3.4 Construction of the unit shall be such that it can be lifted, skidded, or slid into place on the mounting pad without disturbing the entrance cables. The unit shall be furnished with 5/8 inch – 11 UNC flush mounted inserts of corrosion resistant material so arranged to provide a balanced total transformer lift.

3.5 A ½ inch NPT liquid level plug shall be located at the 25° C oil level.

3.6 A pressure relief valve meeting the requirements of ANSI C57.12.25, Section 6.4.5 shall be provided above the 140° C oil level for relief of excess tank pressure. This device shall vent into the terminating compartment and shall be mounted in a threaded port. Approved valves are Qualitrol 202-030, 202-031, and 202-037; Circle Seal P60-383; Beta 1750K-3

**CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
SINGLE PHASE PADMOUNT TRANSFORMERS FOR INVENTORY STOCK**

SPECIFICATIONS (Continued)

3. Construction (Continued)

Bidder's Response:

1776K.

3.7 Two ½ inch – 13UNC tapped ground pads shall be welded to the tank with a continuous seam weld. They shall be located below the high and low voltage bushings. Standard eye-bolt ground terminals shall be provided with these pads.

3.8 The transformer shall remain effectively sealed throughout a top oil temperature range of minus 5° C to plus 105° C.

3.9 Transformer shall be furnished with a steel door per the following specifications:

a. Stainless steel (302, 303, and 304) hinges with a .340 inch diameter minimum pin and an easily removable door which can be removed only in the completely open position shall be provided.

4. Coating

4.1 The unit shall be furnished in a “7GY 3.29/1.5 Munsell” green color. This section describes a high quality coating system for carbon steel padmounted transformers.

4.2 All coated surfaces on the exterior of the transformer and on the interior of the cabinet shall be capable of meeting the performance tests which are given in the latest EEI Finishing Guidelines. Test panels shall be of the same material and coating system as used in production.

4.3 For coatings on the surfaces of the base of the equipment, and a minimum of two (2) inches up both the exterior and interior surfaces from the base, scribe a panel to bare metal and test for 1500 hours in a 5% salt spray per ASTM B 117, latest revision. For all other surfaces on the exterior of the equipment and on the interior of the cabinet, scribe a panel to bare metal and test for 1000 hours in a 5% salt spray per ASTM B 117, latest revision. Loss of adhesion from bare metal shall not extend more than 1/8 inch from the scribe. Underfilm corrosion shall not extend more than 1/16 inch from the scribe.

**CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
SINGLE PHASE PADMOUNT TRANSFORMERS FOR INVENTORY STOCK**

SPECIFICATIONS (Continued)

Bidder's Response:

4. Coating (Continued)

4.4 Crosshatch Adhesion: Scribe a panel to bare metal with a crosshatch pattern and test per ASTM D 3359, latest revision. Use Method A for films thicker than 5 mils, and Method B for films less than or equal to 5 mils. There shall be 100% adhesion to the bare metal and between layers.

4.5 Humidity: Test a panel for 1000 hours per ASTM D 2247, latest revision, except at 45° C + 1° C. There shall be no blisters.

4.6 Impact: Impact a test panel with a 160 in.-lb. falling dart per ASTM D 2794, latest revision. There shall be no cracking or chipping of the paint on the impact side of the test panel.

5. Bushings and Terminals:

5.1 Two high voltage load-break bushing wells without inserts shall be externally clamped or bolted to the tank wall. The arrangement shall permit operation from a 200 ampere, continuous, 10,000 ampere symmetrical momentary system. Dust covers shall be furnished on all bushing wells.

5.2 A cable accessory parking stand shall be provided between the two high voltage bushings.

5.3 Low voltage bushings shall be externally clamped or bolted to the tank wall. Transformers rated 25 through 75 kVA shall be equipped with 5/8 inch – 11 UNC copper studs at least 1¼ inches long. Transformers rated 100 through 167 kVA shall be equipped with 1 inch – 14 UNC copper studs at least

1¾ inches long. If the bushings are of porcelain, they shall be keyed such that the stud and bushing cannot be twisted. The assembly shall contain a jam nut.

5.4 The high voltage neutral termination shall be as specified in 6.2.4 of ANSI C57.12.25. The low voltage neutral termination shall be made through a fully insulated bushing in accordance with 6.2.6 of ANSI C57.12.25.

**CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
SINGLE PHASE PADMOUNT TRANSFORMERS FOR INVENTORY STOCK**

SPECIFICATIONS (Continued)

5. Bushings and Terminals (Continued)

Bidder's Response:

5.5 The high voltage bushing wells without inserts shall be of the 15 kV Insulation Class, 95 kV BIL, and shall have a 34 kV 60 Hertz dry withstand.

6. Fusing:

6.1 The high voltage fusing shall consist of a bayonet weak-link expulsion fuse in series with an under-oil, partial range current limiting fuse. The current limiting fuse shall be connected between the 200 ampere bus and the lower contact of the bayonet fuse holder, so that it is in series with the weak-link expulsion fuse. Refer to the appropriate appendix for acceptable weak-link expulsion fuses and current limiting fuses.

6.2 Expulsion fuses shall allow up to 200% of full load for two hours. Current limiting fuses shall isolate the transformer from the system before tank rupture in the event of failure.

6.3 The transformer manufacturer may supply his/her preference from the following list of acceptable fuses, but expulsion fuses shall be matched with current limiting fuses shown on the same line only.

Bayonet	Partial Range	
<u>kVA Expulsion Fuse</u>		<u>Current Limiting Fuse</u>
25	RTE/4000358C05 RTE/4000358C05 RTE/4000358C05	RTE/3543040M61 KEARNEY/150608-40 CHANCE/C705-0762
	Bayonet	Partial Range
	<u>kVA Expulsion Fuse</u>	<u>Current Limiting Fuse</u>
37.5	RTE/4000358C05 RTE/4000358C05 RTE/4000358C05	RTE/354304M61M KEARNEY/150608-40 CHANCE/C705-0762
50	RTE/4000358C08 RTE/4000358C08	RTE/3543080M51 KEARNEY/150608-65

**CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
SINGLE PHASE PADMOUNT TRANSFORMERS FOR INVENTORY STOCK**

RTE/4000358C08 CHANCE/C705-0765
SPECIFICATIONS (Continued)

6. Fusing (Continued)

Bidder's Response:

75	RTE/4000358C08 RTE/4000358C08 RTE/4000358C08	RTE/3543065M51 (2 per phase) KEARNEY/150608-65 CHANCE/C705-0764 (2 per phase)
100	RTE/4000358C10 RTE/4000358C10 RTE/4000358C10	RTE/354308M51 (2 per phase) KEARNEY/150608-100 CHANCE/C705-0765 (2 per phase)
167	RTE/4000358C10 RTE/4000358C10	RTE/3543100M51 (2 per phase) CHANCE/C705-0767

6.2 An oil drip-shield shall be provided under each bayonet holder to prevent oil from contacting the high-voltage separable connectors.

7. Terminal Marking:

7.1 Terminal designation shall be as defined by ANSI C57.12.70 and shall be marked on the tank.

8. Nameplate:

8.1 Nameplate shall be in accordance with ANSI/IEEE Standard 462 (ANSI C57.12.00), Table 16.

8.2 The nameplate shall be at a convenient location on the low voltage side of the terminating cabinet, mounted to the tank and readable with the cables in place.

9. Testing:

9.1 Routine tests on all transformers shall be conducted as specified in ANSI/IEEE Standard 462 (ANSI C57.12.00).

9.2 ANSI/IEEE Standard 262 (ANSI C57.12.90) shall be followed for all testing procedures.

9.3 The transformer design shall have successfully withstood the impulse testing as specified in ANSI C57.12.90.

**CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
SINGLE PHASE PADMOUNT TRANSFORMERS FOR INVENTORY STOCK**

SPECIFICATIONS (Continued)

9. Testing (Continued)

Bidder's Response:

9.4 A certified copy of actual test values shall be submitted with each invoice.

9.5 A certified copy of the results of no-load loss and load loss tests shall be provided for each transformer in every shipment. If sample testing of a transformer order by the City of Alexandria Alexandria indicates failure of the manufacturer to meet loss guarantees, a purchase price adjustment shall be made. This adjustment shall be based on the difference between guaranteed losses and the average of the tested losses using the same loss penalties that were applied during bid evaluation.

9.6 No-load (core) losses shall be evaluated at **\$2.98** per watt and full-load (winding) losses shall be evaluated at **\$1.57** per watt.

10. Transformer Oil:

10.1 Type II mineral oil shall conform to ASTM-D3487, latest revision.

10.2 All oil shall contain a minimum of 0.15% by weight, of DBPC oxidation inhibitor.

10.3 All oil shall be free of other additives.

10.4 All oil shall be guaranteed to contain no hazardous substances as listed by 40cfr, Part 261, Subpart D.

10.5 "Less than 2 PPM PCB at time of manufacturer", shall be permanently imprinted on the nameplates.

11. Safety Labels:

11.1 Safety labels shall be affixed to the transformer in accordance with NEMA 260-1982 "Safety Labels for Padmounted Switchgear and Transformers Sited in Public Areas".

11.2 The inside "**DANGER**" label shall be of the standard type and shall be readily visible when the door is open.

**CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
SINGLE PHASE PADMOUNT TRANSFORMERS FOR INVENTORY STOCK**

SPECIFICATIONS (Continued)

Bidder's Response:

11. Safety Labels (Continued)

11.3 The outside “**WARNING**” label shall be of the standard type and shall be mounted on the door above the locking mechanism.

12. Approval of Drawings:

12.1 Drawings showing dimensions, weights, accessories and name-plate information of each size of transformer shall be submitted with bid.

12.2 Subsequent approvals shall be required when:
1) Manufacturer changes any values previously approved;
2) Purchaser changes specification;
3) Special request by Purchaser.

13. Shipping:

13.1 Transformers shall be shipped on individual pallets and secured with a banding strap connecting at least two lifting hangers to the pallet.

13.2 **Twenty-four (24) hour notice of delivery** shall be made to the **Electric Distribution Warehouse at phone (318)473-1353.**

13.3 Since unloading shall be by City equipment, only open top trailers shall be accepted for delivery.

14. Data Required from Manufacturer:

14.1 A copy of the transformer drawings, showing all dimensions, placement of bushings and radiators shall be submitted upon award of bid.

14.2 The Guaranteed Performance Data Table for each size of transformer shall be completed in order to be considered a valid bid: (These items are to be completed on the price sheet.)

1. Manufacturer of transformer.
2. Unit cost per transformer, delivered.

**CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
SINGLE PHASE PADMOUNT TRANSFORMERS FOR INVENTORY STOCK**

SPECIFICATIONS (Continued)

Bidder's Response:

14. Data Required from Manufacturer (Continued)

3. No-Load (core) losses (watts) per transformer at rated voltage.
4. Full-Load (winding) losses (watts) per transformer at rated voltage.
5. Regulation at 100% power factor.
6. Regulation at 80% power factor.
7. Full load impedance at rated kVA base.
8. Net weight.
9. Manufacturer of bayonet fuse holder.
10. Manufacturer of primary bushing wells.
11. Height.
12. Depth (including any radiators).
13. Width (including any radiators).
14. Primary windings (copper or aluminum).
15. Secondary windings (copper or aluminum).
16. Delivery timer, in days ARO.
17. Attachments may be submitted, provided the performance sheet is complete.

15. Transformer Description/Size/Estimated Quantity

		Est. <u>Quantity</u>
12470/7200 Grd Y Primary	25 kVA	20
240/120 Volt Secondary	37.5 kVA	15
	50 kVA	10
	75 kVA	10
	100 kVA	5
	167 kVA	3

16. Warranty:

- 16.1 The manufacturer's warrant shall apply for at least one (1) year except that the effective period of warranty shall commence when the transformer is installed by the purchaser, and the period from the time of receipt by the purchaser to the commencement of the warranty shall be at least six (6) months. All warranties shall be specific as to terms of coverage.

**CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
SINGLE PHASE PADMOUNT TRANSFORMERS FOR INVENTORY STOCK**

Single Phase Padmount Transformers

Guaranteed Performance Data (Item 14.2 – Page 13 of 15, total of 18 responses to be completed by Bidder)

The following are firm prices per each, freight included, and in compliance with all bid specifications:

<u>kVA</u>	<u>25</u>	<u>37.5</u>	<u>50</u>	<u>75</u>	<u>100</u>	<u>167</u>
1.	_____	_____	_____	_____	_____	_____
2.	_____	_____	_____	_____	_____	_____
3.	_____	_____	_____	_____	_____	_____
4.	_____	_____	_____	_____	_____	_____
5.	_____	_____	_____	_____	_____	_____
6.	_____	_____	_____	_____	_____	_____
7.	_____	_____	_____	_____	_____	_____
8.	_____	_____	_____	_____	_____	_____
9.	_____	_____	_____	_____	_____	_____
10.	_____	_____	_____	_____	_____	_____
11.	_____	_____	_____	_____	_____	_____
12.	_____	_____	_____	_____	_____	_____
13.	_____	_____	_____	_____	_____	_____
14.	_____	_____	_____	_____	_____	_____
15.	_____	_____	_____	_____	_____	_____
16.	_____	_____	_____	_____	_____	_____
17.	_____	_____	_____	_____	_____	_____

CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
SINGLE PHASE PADMOUNT TRANSFORMERS FOR INVENTORY STOCK

Bidder Information:

Company Name: _____

Address: _____

City/State/Zip: _____

Telephone #: (_____) _____ Fax #: (_____) _____

Email (optional) _____

Authorized Printed Name and Title: _____

Authorized Signature: _____

(Per LA R.S. 38:2212(A)(c)(i) - See General Conditions Item #22, Page 4 of these bid specifications.)