COVER PAGE

Bid #2603

138KV GAS CIRCUIT BREAKER FOR WILLOW GLEN SUBSTATION

Sealed bids and electronic submitted bids for the above will be received until **10:00 AM CST or CDT, Tuesday, December 15, 2025,** 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: 318-449-5090

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.centralauctionhouse.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:	Joann Swain, Senior Buyer
Phone Number:	(318) 441-6182
Fax Number:	(318) 619-3412
E-Mail Address:	joann.swain@cityofalex.com

Wilma Kelly
Purchasing Manager

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

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

Sealed bids will be received until 10:00 AM Tuesday, December 15, 2026, and publicly opened in the Council Chambers or Council Committee Room.	City of Alexandria Bid#2603 Page: 1 of 18 Date Specifications Prepared: October 19, 2026
Bid Bond Requirements: A bid bond or check for N/A% of the total amount of the bid. Performance Bond Requirements: In the event bid If accepted, a performance bond shall be required In the amount of N/A%.	**Please file a bid with the following:** **Donna Jones, City Clerk** **City of Alexandria – City Hall** **915 Third Street** **P.O. Box 71** **Alexandria, LA 71309-0071** **Phone: (318) 449-5090**

REQUIREMENTS AND STIPULATIONS

138KV GAS CIRCUIT BREAKER FOR WILLOW GLEN SUBSTATION

It is the intent of the City of Alexandria, La., to secure pricing on **One (1) or more 138kV Gas Circuit Breaker(s) for Willow Glen Substation** used by the City of Alexandria Electric Distribution Department. This circuit breaker shall be furnished with all accessories ready for mounting, connecting, and energization. Submitted bid prices shall be for **the breaker only; NO installation is to be included.**

Bid prices shall remain firm through delivery and acceptance by the City of Alexandria.

All bid prices shall include any and all freight charges. All products are to be shipped F.O.B., freight pre-paid, to the City of Alexandria Electric Distribution, located at 1015 N. 3rd Street, Alexandria, LA 71301.

In estimating the lowest cost to the City of Alexandria as one of the factors in deciding the award of the bid, the City will consider not only price, but also adherence to the bid specifications, delivery schedule, and warranty.

Questions and/or clarification regarding bid specifications are to be in written form only, either mailed, faxed, or e-mailed to the attention of Bobby Clifton, City of Alexandria – Electric Distribution Department, PO Box 71, Alexandria, LA 71309; Faxed to (318) 473-1308; or e-mailed to bobby.clifton@cityofalex.com and shall be received by close of business on Thursday, December 3, 2026.

CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
138kV GAS CIRCUIT BREAKER FOR WILLOW GLEN SUBSTATION

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 requirements for type, grade, and quality unless otherwise specified.

2. Pursuant to LA R.S. 38:2212 B.(1), the provisions and requirements 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 with 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, including 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 Statistics' 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:
138kV GAS CIRCUIT BREAKER FOR WILLOW GLEN SUBSTATION

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.

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 their 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:
138kV GAS CIRCUIT BREAKER FOR WILLOW GLEN SUBSTATION

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.cityofalexandriala.com) and posted on Central Bidding's website (www.centralauctionhouse.com) if applicable.

25. Pursuant to LA. R.S. 38:2212.3, the City of Alexandria reserves the right to reject the lowest bid in awarding contracts for items, equipment, materials, or supplies if (1) the bid is received from a bidder domiciled in a Communist country, or (2) the items, materials, equipment, or supplies offered are manufactured in a Communist country. If the apparent lowest bid is rejected pursuant to this provision, the City of Alexandria reserves the right to declare the bid non-responsive and award the contract to the next lowest responsible and responsive bidder who complies with all bidding documents and applicable law.

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. Inquiries about the *AFEAT* Program should be directed to the Division of Finance. As a part of its RFP response, each Bidder ***shall*** submit documentation of its bona fide effort to secure subcontractors that meet the City's AFEAT goals. Each Bidder ***shall*** also submit proof of engagement of any subcontractor selected because of its solicitations. The Bidder's bona fide efforts and engagement(s) are a consideration in bid review and rating.

CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
138kV GAS CIRCUIT BREAKER FOR WILLOW GLEN SUBSTATION

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 businesses 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-owned construction contractors 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 that 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.

As a part of its RFP response, each Bidder ***shall*** submit documentation of its bona fide effort to secure subcontractors that meet the City's AFEAT goals. Each Bidder ***shall*** also submit proof of engagement of any subcontractor selected because of its solicitations. The Bidder's bona fide efforts and engagement(s) are a consideration in bid review and rating.

Sincerely,

City of Alexandria

BID SPECIFICATIONS:

SCOPE:

The equipment to be furnished by the Bidder consists of one (1) or more 138kV Gas (SF6) Circuit Breaker(s).

These specifications describe the circuit breaker to be designed, manufactured, and tested in accordance with the most recent applicable NEMA, IEEE, ANSI, and NEC Standards.

The breaker is to be designed for **outdoor** use.

TECHNICAL SPECIFICATIONS:

A. RATINGS AND DESCRIPTION: The ratings shall be as outlined in the following table:

1.	Continuous Current (Amps)	2,000
2.	Maximum Voltage Rating (kV)	145
3.	Phases	3
4.	Frequency (Hertz)	60
5.	Voltage Range Factor K	1.0
6.	Type of Interrupting Medium	SF6 Gas
7.	Normal Operating Pressure (psig)	93
8.	Maximum Symmetrical Short Circuit Current Capability (kA)	40
9.	Maximum Symmetrical Short Circuit Breaking Current (kA, RMS)	40
10.	Three (3) Second Short Time Current Carrying Capability (kA, RMS)	40
11.	Close and Latch Capability (kA, RMS)	104
12.	Withstand Test Voltage (kV) Low Frequency, 1-Minute Dry (kV, RMS) Full Wave Impulse (kV Peak)	 310 650
13.	Spring Winding Motor Voltage (DC Volts)	48

BID SPECIFICATIONS (Continued):

TECHNICAL SPECIFICATIONS (Continued):

A. RATINGS AND DESCRIPTION: (Continued)

14.	Trip Control Voltage (DC Volts)	48
15.	Close Control Voltage (DC Volts)	48
16.	Maximum Interrupting Time (Cycles)	3.0
17.	Closing Time (Cycles)	6.0
18.	Reclosing Time (Cycles)	20
19.	Permissible Tripping Delay Y (Seconds)	2.0
20.	Mechanical Endurance Operations	10,000

B. OPERATING MECHANISM:

1. The operating mechanism shall be of the automatic motor-charged, spring-operated type. The mechanism shall be rated for 48V D.C. The stored energy shall allow a CO-15S-CO duty cycle without auxiliary power available.

2. Operating mechanism shall be mechanically and electrically trip-free.

3. Heaters shall be provided in the mechanism housing. They shall be thermostatically controlled and rated for 230V, A.C., single-phase, operating at 120 V, A.C.

4. A molded case circuit breaker rated 10,000 amps with single-throw knife switches shall be used for the control circuits, heater circuit, and motor circuit.

5. A manual closing device shall be provided.

6. The unit shall be furnished with two (2) mechanically and electrically independent trip coils. Simultaneous operation of both trip coils shall not prevent the breaker from tripping.

7. An operation counter shall be installed to record on trip.

8. An auxiliary switch shall be provided with a minimum of ten (10) "a" and ten (10) "b" contacts for customer use, all wired to a terminal block in the control housing.

BID SPECIFICATIONS (Continued):

TECHNICAL SPECIFICATIONS (Continued):

B. OPERATING MECHANISM: (Continued)

9. Interrupters shall be single-break, single-pressure units.

10. Moving interrupter contacts shall be mechanically linked together.

11. A hand trip device shall be included on each breaker and accessible from outside the breaker control cabinet. This trip device shall be capable of mechanically tripping the breaker without control power available.

12. Density gauges shall be provided to monitor air system conditions and SF6 gas system density. Cutout contacts shall be provided to block tripping for low SF6 gas system density in each interrupter and spring charged/discharged as applicable.

13. The proper amount of SF6 gas shall be supplied with the device to fill the breaker to manufacturer's specifications.

C. BUSHINGS AND CONNECTIONS:

All bushings shall be porcelain and all connections shall be made with stainless steel nuts and bolts. All bushings shall be rated for maximum voltage and current. Each bushing shall be supplied complete with four-hole, NEMA pad, bronze stud connectors. The surface area of the pads shall be sufficient to accommodate the full current rating of the breaker.

D. BUSHING CURRENT TRANSFORMERS:

1. Two (2) multi-ratio (ANSI Standard) relaying accuracy bushing current transformers shall be furnished and installed on each bushing of the breaker.

2. Each current transformer shall be 2000:5 MR, C-800 accuracy, with a thermal rating of 2.0 on all taps.

3. All C.T. leads shall terminate on suitable C.T. terminal blocks located in the mechanism and control housing. All C.T. terminal blocks shall have short-circuiting straps. Wire jumpers are not acceptable.

BID SPECIFICATIONS (Continued):

TECHNICAL SPECIFICATIONS (Continued):

E. ALARMS:

1. A Potter & Brumfield relay, model # KRPA-11DG-48 with a coil resistance of 1,800 ohms for 48VDC operation, manufactured by Tyco International, shall be used to monitor each trip coil and closed circuit. These relays shall be surface-mounted using octal sockets in a readily accessible and visible location.

2. All alarm contacts shall be normally open under normal operating conditions.

3. The following alarm contacts shall be provided:

   (a) Loss of trip coil 1 DC
   (b) Loss of trip coil 2 DC
   (c) Loss of close DC
   (d) Loss of motor DC
   (e) SF6 gas lockout
   (f) SF6 gas differential or low pressure
   (g) Motor/Pump excessive run
   (h) Low closing system pressure
   (i) Gas monitor failure

4. Each alarm contact shall be wired to an annunciator mounted in the control cabinet. The annunciator shall be Schweitzer Engineering Laboratories, Inc. (SEL) Type 2533, with standard firmware, 48V DC power supply, 48V DC control input voltage, 14 digital inputs and 7 digital outputs, SEL Catalog Number 2533022100XC2X0. The following accessories shall be provided with the annunciator:

   (a) Wetting Voltage Jumper Kit, Six 4-prong Jumpers, SEL P/N 915900239
   (b) Additional Configurable Labels, SEL P/N 9260065

5. The individual alarms shall be wired to the annunciator inputs in accordance with the following schedule:

   Input A1 – Loss of trip coil 1 DC
   Input A2 – Loss of trip coil 2 DC
   Input B1 – Loss of close DC
   Input B2 – Loss of motor DC
   Input C1 – SF6 gas lockout
   Input C2 – SF6 gas differential or low pressure
   Input D1 – Motor/Pump excessive run
   Input D2 – Low closing system pressure
   Input E1 – Gas monitor failure
   Input E2, F1, G2 – Spares

BID SPECIFICATIONS (Continued):

TECHNICAL SPECIFICATIONS (Continued):

E. ALARMS: (Continued)

6. Outputs OUT01 and OUT02 of the annunciator shall be wired to terminal blocks in the control cabinet for customer use.

7. Alarm window labels shall be provided for the annunciator in accordance with the legend in Section C of this specification.

F. OTHER ACCESSORIES:

The following shall also be supplied:

1. Mechanical position indicator. Green "open", Red "closed".

2. Two bolted-type grounding terminals for attachment to Owner's 2/0 AWG to 300 MCM stranded copper ground cables. They shall be placed in diagonally opposite locations of the frame.

3. One lot of special tools required for installation and gas filling.

4. Galvanized Framework - The frame shall allow for a 9' - 0" minimum height from grade to the bottom of the porcelain insulators.

5. Control cabinet light and a 120V A.C. G.F.I. convenience outlet. The light shall be operated by a cabinet door switch.

6. Cut-off switches.

7. One trip-close push-button station.

8. Nameplate for all bushing current transformers.

9. Loss of voltage alarm relay on each auxiliary power and control circuit at each breaker.

10. Local / Remote control switch.

11. Trip / Normal / Close control switch.

BID SPECIFICATIONS (Continued):

TECHNICAL SPECIFICATIONS (Continued):

G. CONSTRUCTION:

1. The phasing of all terminals, switchboards, instruments, breakers, fuses, disconnecting switches, and other equipment shall be A-B-C from left to right when facing the front of the equipment. In the vertical plane, the phasing shall be A-B-C from top to bottom. All equipment involving direct current shall be arranged "plus-minus" from left to right and top to bottom.

2. The equipment shall operate satisfactorily in an environment that may have a temperature range from -30°C to 40°C and a relative humidity as high as 100%.

3. All nameplates shall be stainless steel and mounted by the supplier and shall be attached with stainless steel screws.

4. A weatherproof, NEMA 3R breaker control cabinet shall be provided and mounted on the breaker frame.

5. Control and instrument switches shall be located at such a height that the operator may use them conveniently.

6. All primary and auxiliary devices and all wiring to such devices shall be completely accessible for operation, maintenance, removal and replacement. Perforated wiring grilles are acceptable if furnished with 1-1/2" grommeted holes. Panel wiring will not pass behind panels that are not removable. Use of "PANDUIT", or approved equivalent, is encouraged.

7. Terminal blocks for control wiring shall be provided and shall be rated at least 600 volts and 30 amperes. The terminal strip shall be molded block type to accommodate ring lugs. The terminal screws shall be #10 slotted head, tin-plated brass machine screws with phosphor bronze lock washers. The terminal blocks shall be 12-point with molded insulating barriers between terminals and a removable marking strip. Short-circuit type blocks will be furnished for all C.T. circuits. Slide links are not to be used in C.T. circuits.

8. One (1) empty 12-point terminal block shall be provided in the mechanism and control housing for customer's use.

9. The breaker shall be equipped with all internal wiring necessary for complete and proper operation.

10. Power sources shall be provided with molded case circuit breakers and knife switches located within the panel.

BID SPECIFICATIONS (Continued):

TECHNICAL SPECIFICATIONS (Continued):

H. WIRING:

1. All wiring shall be not smaller than No. 14 AWG, 41-strand copper wire which is insulated with SIS insulation rated 600 volts or higher.

2. There shall be no splices in the wiring, and all connections shall be made at device studs or terminal blocks.

3. All wiring will be terminated with T&B Stakon Type No. 10RC-10, or approved equal, nylon insulated ring tongue connectors. The connectors shall be copper and shall be tin-plated. The inner barrel shall be serrated, and the exterior surface of the terminal barrel shall be furnished with crimp guides. The nylon insulation shall be color coded to indicate conductor size. All compression terminals shall be crimped with hand or power tools approved by the terminal manufacturer. If hand tools are used, they must be "ratchet" type tools that require full compression of the terminal barrel.

4. Each wire termination device shall be labeled to coincide with the breaker drawings. Each wire termination shall be identified by permanent printing on conductor identification PVC sleeve. A sleeve shall be provided on each end of the internal conductor. Each sleeve shall be marked with the local and opposite end terminal/device number/code. Adhesive labels are not acceptable.

5. Fuse and/or circuit breaker wiring shall be such that the source will be at the top with the load at the bottom of the device.

I. PAINT:

The breaker, cabinets, and other non-current-carrying metal accessories mounted on it shall be painted with an undercoat of rust-inhibiting primer such as red inorganic zinc, or equal, followed by two (2) coats of Devoe 379 polyurethane, or equal. Finish color shall be ANSI #70, light gray. Minimum overall dry thickness of the undercoat and the finish coats shall be 1.5 and 3 mils, respectively. All removable transit braces shall be painted red.
Prior to undercoating, all surfaces to be painted shall be thoroughly cleaned of all dirt, oil, and other impurities by applying Devoe Deprep 88, or equal, per the manufacturer's instructions. Then the surface shall be shot blasted or sandblasted for removal of weld splatter, rust, dirt, and all or any foreign matter accumulated during fabrication. Sufficient amounts of touch-up paint (spray cans) will be furnished to cover scratches that occurred during shipping.

BID SPECIFICATIONS (Continued):

TECHNICAL SPECIFICATIONS (Continued):

J. GALVANIZING:

The steel frame will be completely fabricated with all holes punched, drilled, and all cutting, notching, and bending of the steel being done before galvanizing. All steel shall be shipped pre-placed. Only required holes shall be drilled. "Double dip" galvanizing is prohibited. Galvanizing shall be in accordance with ASTM A-123, ASTM A-143, and ASTM 1-153.

All parts of the structural assembly should be made from materials that ensure galvanizing compatibility. The immersion time, the temperature of the bath, and the use of inhibitors will vary with the type of steel being used. Parts made from steel of different chemistry or from members having large differences in thickness may result in various coating colors, textures, and thicknesses.

Surface Preparation – A caustic bath shall be used to remove excessive oils, paints, and grease. Mill scale and rust are removed in an acid bath. Shot or grit blasting may be necessary to remove deeply embedded mill scale or where the surface has inclusions of sand particles that cannot be removed by pickling. All welds must be cleaned by hand or blast methods because welding residues are chemically inert in standard pickling solutions.

The temperature of the pickling bath and prolonging the immersion in the bath may increase the susceptibility to embrittlement due to hydrogen absorption. Inhibitors that reduce hydrogen absorption are available for such use in the pickling bath. It is imperative that all of the pickling solution be removed from both the inside and outside surfaces of the part before immersion in the preflux solution.

Zinc Coating – After prefluxing, the parts shall be dipped in a molten zinc galvanizing bath in accordance with the ASTM specifications noted above.

Areas that have become damaged prior to delivery at site may be repaired by using commercial zinc products designed for this purpose, applying zinc-rich paint, zinc spraying, or applying brushed molten zinc. All repairs shall be subject to the approval of the Engineer.

K. FACTORY WITNESS TEST:

The manufacturer shall notify the City of Alexandria not less than ten (10) working days prior to the date of factory witness test.

BID SPECIFICATIONS (Continued):

TECHNICAL SPECIFICATIONS (Continued):

L. DRAWINGS:

City of Alexandria
Post Office Box 71
Alexandria, LA 71309-0071
ATTENTION: Mr. Bobby Clifton
Phone: (318) 473-1302

BHA, Inc.
Post Office Box 4467
Baton Rouge, LA 70821
ATTENTION: Mr. Brook Samuel
Phone: (225) 938-9518

Approval Drawings – Supplier shall furnish three (3) sets of approval drawings to BHA, Inc., as soon as possible after award of contract. Drawings shall indicate weight, dimensions, mounting data, anchor bolt plans, performance, summary of equipment sheets, elementary diagrams, C.T. excitation curves, and other pertinent data on all significant items. Any drawings not approved shall be resubmitted until approved.

Final Drawings – Final drawings shall be supplied no later than the date of shipment as follows:

a. One (1) complete set of printed drawings plus all drawings in AutoCAD (DXF) format shall be sent to BHA, Inc., and two (2) complete sets of printed drawings plus all drawings in AutoCAD (DXF) format shall be sent to the City of Alexandria.

b. One (1) copy of each instruction/installation/maintenance manual will be supplied to BHA, Inc., and four (4) copies will be provided to the City of Alexandria. Each instruction manual will be complete with the following:

Table of Contents and Index Tabs
Description of Equipment
Specification, Test Data, Curves
Ordering Information on Obtaining Spare Parts
Long Term Storage and Handling Information
Installation/Operating/Maintenance Instructions
Assembly Drawings
Parts List
Shop Order Numbers for Each Item of Equipment

The following information shall be included on all drawings, in or adjacent to the Title Block, and on the first page of all instruction books:

City of Alexandria
City of Alexandria Substations
138kV Gas Circuit Breaker
City of Alexandria Purchase Order Number

BID SPECIFICATIONS (Continued):

TECHNICAL SPECIFICATIONS (Continued):

M. SPARE PARTS AND SPECIAL TOOLS:

The breaker shall be shipped with a complete set of recommended spare parts. Also, one set of special tools shall be supplied, if they are required, for dismantling and maintenance of the breaker. The tools and spare parts shall be shipped in separate well-constructed wooden boxes provided with hinged covers and padlock hasps. All boxes shall be designed as permanent storage enclosures. Spare parts shall be protected during an extended storage period by use of coatings, airtight enclosure, and moisture-absorbing chemical bags.

N. BREAKER SHIPMENT:

The circuit breaker and components shall be clean, dry, and sealed when shipped from the factory. Each component shall contain a packaged moisture-absorbing chemical. Complete instructions on inspection upon receipt at the substation and maintaining moisture-free components, as well as SF6 filling instructions, shall be shipped inside the breaker control cabinet.

The circuit breaker shall be shipped F.O.B., freight pre-paid – City of Alexandria Electric Distribution, 1015 N. 3rd Street, Alexandria, LA 71301.

O. FIELD ENGINEERING SERVICE:

Manufacturer shall furnish an authorized and qualified Field Engineer to perform on-site inspection and alignment of the breaker, to fill the breaker with SF6 gas, and to instruct personnel on operation and maintenance prior to placing the breaker in service. Price for this service shall be included in the base bid.

P. DELIVERY:

The breaker shall be delivered to the City of Alexandria Electric Distribution site within 27 to 30 weeks ARO. Manufacturer's scheduled shipment and delivery date shall be included in the proposal.

Q. WARRANTY:

The breakers, including all accessories, shall be warranted to the City of Alexandria for a minimum period of one (1) year. The bidder should include with his proposal a warranty statement indicating the terms and conditions of the warranty for the breaker and all accessories.

BID SPECIFICATIONS (Continued):

TECHNICAL SPECIFICATIONS (Continued):

ALARM WINDOW LEGEND:

	#1	#2
A	LOSS OF DC PRIMARY TRIP	LOSS OF DC BACKUP TRIP
B	LOSS OF DC CLOSE	LOSS OF DC MOTOR
C	SF6 GAS LOCKOUT	SF6 GAS PRESSURE
D	MOTOR/PUMP EXCESSIVE RUN	LOW CLOSING PRESSURE
E	GAS MONITOR FAILURE	

END OF SPECIFICATIONS

CITY OF ALEXANDRIA BID SPECIFICATIONS FOR:
138kV GAS CIRCUIT BREAKER FOR WILLOW GLEN SUBSTATION

BID FORM:

Bid price for ONE (1) 138kV GAS CIRCUIT BREAKER, new and unused, as per these bid specifications, delivered F.O.B., freight prepaid to City of Alexandria Electric Distribution:

Total Bid Price $_____

Manufacturer's Brand Name:_____

Manufacturer's scheduled shipment delivery date ARO:_____

Warranty Statement Terms & Conditions included with bid: _____Yes _____No

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OPTIONAL PRICING:

Bid price for one (1) additional 138kV Gas Circuit Breaker, as per these bid specifications, delivered F.O.B., freight prepaid to the City of Alexandria Electric Distribution:

Bid Price $_____

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Bidder Information:

Company
Name:_____

Address:_____

City/State/Zip:_____

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

Email:_____

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.)