

## REQUEST FOR QUOTATION

Vendor Name and No.

Collective/Bid # / Bid Due Date

45904 / 05/17/2016

Bids must be received no later than 11:00 AM on the above Bid Due Date.

Buyer:  
 John Santiago/212-435-4613/john.santiago@panynj.gov

Deliver Goods/Services To:  
 PATH Consolidated Maintenance Facility  
 120 Academy Street, Jersey City, NJ 07302

Quantity	Description	Unit Price	Total
	<p>RE-BID: CONTACT RAIL HEATER, SELF-REGULATING, INCLUDING MOUNTING HARDWARE AND ACCESSORIES PER ATTACHED PATH SPECIFICATIONS</p> <p>QUOTE FULLY-DELIVERED PRICE ON THIS REQUEST FOR QUOTATION FORM AND RETURN IT IN ITS ENTIRETY ACCORDING TO THE BID SUBMISSION INSTRUCTIONS.</p> <p>ATTACHING YOUR COMPANY'S TERMS &amp; CONDITIONS MAY CAUSE YOUR BID TO BE DEEMED NON-RESPONSIVE AND/OR DELAY AN AWARD TO BE ISSUED.</p> <p>A price preference of 10 % is available for NY/NJ Minority and Women Business Enterprises (M/WBE) or 5% for NY/NJ Small Business Enterprises (SBE) certified by the Port Authority (PA) by the day before bid opening for awards not exceeding \$1,000,000. My firm was certified as a _____ on _____.</p>		
	<b>PLEASE QUOTE FULLY DELIVERED PRICES</b>	<b>PAYMENT TERMS</b>	<b>Total Delivered Price</b>

**This Quotation is subject to the terms and conditions set forth on the back page hereof. Bidder is advised to read these before signing.**

We have read the instructions and, if favored with an order, we agree to furnish the items enumerated herein at the prices and under the conditions indicated.

NOTICE TO BIDDERS: Unless the following term of assurance that the above offer is irrevocable is signed, the offer submitted herein shall not be deemed to be complete.

Signed \_\_\_\_\_  
 Firm Name \_\_\_\_\_  
 Telephone number \_\_\_\_\_ Date \_\_\_\_\_  
 Fax Number \_\_\_\_\_  
 Federal Taxpayer ID \_\_\_\_\_

**Bidder  
 Must  
 Sign  
 In  
 Two  
 Places**

The foregoing offer shall be irrevocable for 90 days after the date on which The PORT AUTHORITY TRANS-HUDSON CORPORATION opens this proposal.

Signed \_\_\_\_\_ Date \_\_\_\_\_  
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	<p>THIS IS A FORMAL BID INVITATION</p> <p>Sealed Bids must be received at the following address by the due date and time listed on this Request for Quotation, where they will be publicly opened and read:</p> <p>The Port Authority of NY &amp; NJ                      Attn: Bid Custodian                      Procurement Department                      4 World Trade Center                      150 Greenwich Street, 21st Floor                      New York, NY 10007</p> <p>Clearly mark the outside of your envelope/package with "BID ENCLOSED", the Collective/Bid Number and Due Date, and your complete company name and address.</p> <p>Bids are accepted only Monday through Friday, excluding Port Authority holidays, between the hours of 8 A.M. &amp; 5 P.M., via regular mail, express delivery service or hand delivery. Express carrier deliveries by commercial vehicles can be made via vendors approved by Silverstein Properties, the 4 World Trade Center (4WTC) Property Manager, through the Vehicle Security Center (VSC). Presently, UPS is the only delivery vendor with approved recurring delivery times. There is extensive security at the World Trade Center Site.</p>		
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	<p>Individuals must present a valid government-issued photo ID to enter 4 WTC. Individuals without packages or carrying small packages or boxes that can be conveyed by hand or on a hand truck may enter through the lobby. All envelopes, packages and boxes may be subject to additional security screening.</p> <p>There is no parking available at 4 WTC/150 Greenwich Street, and parking in the surrounding area is extremely limited.</p> <p>A valid government-issued photo ID is required to gain access into the building to attend the bid opening or hand deliver a bid.</p> <p>Bids that are not received by the bid custodian by the scheduled bid opening due date time will be considered late.</p> <p>If any Addenda are posted or sent as part of this Bid, the Bidder shall complete, sign and include with its Bid the addenda form(s). In the event any Bidder fails to conform to these instructions, its Bid will nevertheless be construed as though the Addenda had been acknowledged.</p> <p>If the Bidder downloaded this solicitation document, it is the responsibility of the Bidder to periodically check the Port Authority website at <a href="http://www.panynj.gov/business-opportunities/bid-proposal-advertisements.html">http://www.panynj.gov/business-opportunities/bid-proposal-advertisements.html</a> and download any addenda that might have been issued in connection with this solicitation.</p>		
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## REQUEST FOR QUOTATION

Vendor Name and No.	Collective/Bid # / Bid Due Date 45904 / 05/17/2016
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Quantity	Description	Unit Price	Total
2,000 FT	Contact Rail Heater - Self Regulating Heater, 650 V, 37 W/ft. Terminated into 4 each 500-ft circuits. Includes mounting hardware and accessories. Clips, channel, abrasion pad and thermal transfer grease. Reels shall be plastic and non-returnable. Refer to Specifications.  Manufacturer: _____ Plant location: _____ Make/model/part number: _____ Lead time after receipt of order: _____		
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## TERMS AND CONDITIONS

1. The Port Authority (PA) reserves the right to request information relating to seller's responsibility, experience and capability to perform the work.
2. Unless otherwise provided, complete shipment of all items must be in one delivery FOB delivery point. Payment will not be made on partial deliveries unless authorized in advance by the party to be charged and the discount, if any, will be taken on the total order.
3. PA payment terms are net 30 days. Cash discounts for prompt payment of invoices may be taken but will not be considered in determining award, except in the case of tie bids.
4. Separate unit and total FOB delivered prices must be shown.
5. Sales to the PA and to PATH are currently exempt from New York and New Jersey State and local taxes and generally from federal taxation. The seller certifies that there are no federal, state, municipal or any other taxes included in the prices shown hereon.
6. The PA shall have the absolute right to reject any or all proposals or to accept any proposal in whole or part and to waive defects in proposals.
7. Unless the phrase "no substitute" is indicated, bidder may offer alternate manufacturer / brands, which shall be subject to Port Authority approval. Please indicate details of product being offered with bid.
8. Acceptance of seller's offer will be only by Purchase Order Form signed by the PA. No change shall be made in the agreement except in writing.
9. If the seller fails to perform in accordance with the terms of this purchase order, the PA may obtain the goods or services from another contractor and charge the seller the difference in price, if any, a reletting cost of \$100, plus any other damages to the PA.
10. Upon request, sellers are encouraged to extend the terms and conditions of any terms agreement with the PA to other government and quasi-government entities by separate agreement.
11. By signing this quotation or bid, the seller certifies to all statements on Form PA 3764A regarding non-collusive bidding; compliance with the PA Code of Ethics; and the existence of investigations, indictments, convictions, suspensions, terminations, debarments and other stated occurrences to assist the PA in determining whether there are integrity issues which would prevent award of the contract to the seller. The PA has adopted a policy set forth in full on PA 3764A, that it will honor a determination by an agency of the State of New York or New Jersey that a bidder is not eligible to bid on or be awarded public contracts because the bidder has been determined to have engaged in illegal or dishonest conduct or to have violated prevailing wage legislation. The Terms and Conditions of PA 3764A apply to this order. A copy can be obtained by calling (212) 435-4600 or at <http://www.panynj.gov/business-opportunities/become-vendor.html>
12. The vendor may subcontract the services or use a supplier for the furnishing of materials required hereunder to such persons or entities as the Manager, Purchasing Services may from time to time expressly approve in writing. All further subcontracting shall also be subject to such approval.
13. The successful bidder (vendor) shall not issue nor permit to be issued any press release, advertisement, or literature of any kind, which refers to the Port Authority or that goods will be, are being or have been provided to it and/or that services will be, are being or have been performed for it in connection with this Agreement, unless the vendor first obtains the written approval of the Port Authority. Such approval may be withheld if for any reason the Port Authority believes that the publication of such information would be harmful to the public interest or is in any way undesirable.
14. Neither the Commissioners of the Port Authority, nor Directors of PATH, nor any of them, nor any officer, agent or employee thereof, shall be charged personally by the Contractor with any liability, or held personally liable to the Contractor under any term or provision of this Agreement, or because of its execution or attempted execution, or because of any breach, or attempted or alleged breach, thereof.

**PORT AUTHORITY TRANS-HUDSON CORPORATION**

**SPECIFICATION FOR CONTACT RAIL HEATERS**

**70.1.0 General**

This specification covers PATH's requirements for furnishing self-regulating, single element, contact rail heaters.

**70.2.0 Technical Requirements**

**70.2.1 Material**

- A. Single element contact rail heaters shall be manufactured to conform to the Bid Documents and as specified herein.
- B. Contact rail heater active heating element shall be a conductive polymer of a composition to produce a positive temperature coefficient of resistance.
- C. Contact rail heater electrical conductors shall be stranded copper wire of No. 14 AWG minimum cross section to enable the conductive heating polymer to produce the rated thermal output along its entire length.
- D. Contact rail heater sheath shall be a polymeric dielectric to provide encapsulation and electrical insulation between the energized contact rail and contact rail heater.
- E. Contact rail heater outermost jacket shall be corrosion resistant aluminum sheath wrapped around a single heater element.
- F. Contact rail heater wire leads shall be No. 10 AWG single conductor stranded copper synthetic rubber insulated wire in accordance with the current Specification for Synthetic Rubber Insulated Wire and Cable 601-1000 volts, NEMA WC-3 or IPEC 5-19-81.
- G. Contact rail heater power termination and end seal insulation shall be in accordance with the current PATH Standard Specifications for Way and Structures Materials, Section 67, Insulation for Track Tools.

- H. Contact rail heater fiberglass channels shall be in accordance with the current Standard Specifications, Section 65, Specification for Fiberglass Structural Shapes, except that the deflection requirements shall not apply.
- I. Contact rail heater fastening clips shall be AISI type 1070 or AISI type 1080 spring steel at the option of the manufacturer. The rail heater fastening clips shall be provided with a corrosion resistant chromate finish.

**70.2.2 Dimensions**

- A. Contact rail heater and associated material dimensions shall be as indicated below.
- B. Contact rail heaters shall be produced in continuous lengths greater than 5 feet and less than 530 feet, as specified, subject to a tolerance of three (3) percent plus and none minus the length indicated.
- C. Contact rail heaters shall be provided with lead wires of 10 foot nominal lengths as specified in paragraph 70.2.1.F.
- D. Contact rail heater fiberglass channels shall be produced in 6 foot nominal lengths as specified in PATH specification #65.
- E. Contact rail heater fastening clip dimensions shall be suitable for use on PATH's 84C contact rail section as indicated.
- F. Contact rail heater shall be supplied with a method of checking heater's performance at any ambient temperature.

**70.2.3 Performance**

- A. Contact rail heater performance properties shall be as specified when tested by the methods indicated in Article 70.3.3 of this Section:
 

1.	Nominal power output rating at a 32 degree F. plate temperature	35.0 watts/foot
2.	Minimum power output rating at a 32 degree F. plate temperature	31.5 watts/foot
3.	Self regulating index, equal to or greater than	0.15 watts/ft/ degree F.
4.	Voltage index, equal to or less than	0.050 watts/volt.

- |    |   |                    |
|----|---|--------------------|
| 5. | Insulation dielectric strength with a maximum leakage current of 50 microamperes/foot   | 5,000 volts, D.C.  |
| 6. | Insulation resistance, not less than  | 1000 megohms ft.   |
| 7. | Over voltage withstand without failure, plus or minus 10 Volts D.C. and meet the dielectric withstand, insulation resistance and power output criteria. | 900 volts D.C.     |
| 8. | Maximum operating temperature of rail heater outermost jacket, not to exceed  | 225 <sup>0</sup> F |

**70.2.4 Marking**

- A. Contact rail heaters shall be identified on the outermost jacket in 1/4 inch high black letters, with the following information:
  - 1. Danger High Voltage
  - 2. Manufacturer's Name
  - 3. Voltage Rating
  - 4. Wattage Per Foot
  - 5. Batch Number
  - 6. Product Description
- B. Contact rail heater identification shall be repeated at intervals of approximately six (6) feet.

**70.2.5 Product Qualification**

- A. Contact rail heater design shall be a product which has been certified to satisfy qualification requirements in the order as specified in Article 70.3.3 of this Section.
- B. Contact rail heaters shall be sampled as specified in Article 70.3.2 of this Section and meet the specified material, marking, dimension and overall quality requirements.

- C. Contact rail heaters shall meet the performance criteria specified in Article 70.2.3 for the following:
  - 1. Insulation dielectric strength
  - 2. Self-regulating index
  - 3. Nominal power output
  - 4. Minimum power output
  - 5. Voltage index
  - 6. Insulation resistance
  - 7. Over voltage withstand
  - 8. Maximum operating temperature
- D. Qualification procedures shall be performed on terminated samples of contact rail heaters two (2) feet in length.

**70.3.0 Quality Assurance**

**70.3.1 Inspection**

- A. PATH's Inspector shall have free entry to the manufacturer's plant during normal working hours.
- B. Contact rail heaters will be inspected based on the certified test reports and the quality control plan specified in Article 70.3.2 of this Section.

**70.3.2 Quality Program**

- A. The manufacturer shall establish and maintain a quality control program for the entire production process of contact rail heaters incorporating appropriate process controls and calibration procedures.
- B. The manufacturer shall make available all required documents needed to assure that contact rail heaters are produced in accordance with the quality program.
- C. The manufacturer shall execute appropriate quality control plans within the quality program conforming to the sampling plan, examinations and performance criteria as follows:
  - 1. One hundred percent (100%) of all contact rail heaters shall be sampled for examination of materials and marking.
  - 2. One or more representative samples of two (2) feet minimum length shall be obtained per 1,000 feet of contact rail heater production. Three (3) samples shall

be chosen at random from the set of representative samples taken for a given production run. The three samples shall be examined for tolerances of physical dimensions, overall quality, nominal power output and minimum power output criteria, and self regulating index.

### 70.3.3 Testing

- A. The manufacturer shall, at no additional cost to PATH, have performed all tests necessary to assure that all contact rail heaters are in accordance with the specifications. Tests shall be performed by a recognized independent laboratory approved by PATH.
- B. Contact rail heater product qualification tests shall be performed on terminated samples in the sequence indicated in Table I.
- C. Contact rail heater insulation dielectric strength tests shall be performed in accordance with the current ASTM Designation D3032, Standard Specification for Hookup Wire Insulation, section 8, except that the withstand voltage shall not be less than 5,000 volts D.C., and the time duration of the withstand voltage application after the four-hour soak shall be two (2) minutes.
- D. Contact rail heater insulation resistance tests shall be performed on terminated lengths in accordance with the current ASTM D3032, except that the heaters shall be immersed for a minimum of four hours in water containing five (5) percent sodium chloride (NaCl) and a wetting agent, maintained at 23 degrees C., plus or minus five degrees C. The resistance shall be measured between the conductors and a ground plate in the water bath. The resistance measurement shall be made at 5000 volts D.C., plus or minus ten (10) percent after one (1) minute. The insulation resistance, shall be expressed in units of megohm-feet, and shall be calculated as the product of the reading on the megohmmeter and the heater length measured in feet.
- E. Contact rail heater power output tests shall be performed on samples bonded to steel or aluminum plates maintained at a temperature of 32 degrees F., plus or minus two degrees F., and energized at 750 volts D.C., plus or minus ten volts D.C., After the current has reached steady state, the current and voltage shall be measured. The power output per foot shall be calculated as the product of the measured current and voltage, divided by the heater length in feet.
- F. Contact rail heater over voltage operation tests shall be performed on heater samples insulated on both sides with a minimum equivalent thickness of one inch fiberglass insulation. The heater shall be energized at 900 volts D.C., plus or minus 10 volts D.C. for a minimum of one hour without visual evidence of melting, burning or charring.

- G. Contact rail heater maximum outermost sheath temperature tests shall be performed on heater samples energized at 750 volts D.C. plus or minus 12 volts D.C. in still air.
- H. Contact rail heater self regulating index tests shall be performed by calculating the power output at two different plate temperatures, expressed in units of watts per foot per degree F., as follows:

1. Self Regulating Index (SRI) =  $P1 - P2 / T2 - T1$ .

P1 = Power output at temperature T1, in watts per foot.

P2 = Power output at temperature T2, in watts per foot.

T1 = Plate temperature (32°F., plus or minus 2°F.)

T2 = Plate temperature (minimum of 65°F. and a maximum of 150°F.)

- I. Contact rail heater voltage index tests shall be performed by calculating the power output expressed in units of watts per foot at 450 volts D.C. and at 150 volts D.C., as follows:

Voltage Index (VI) =  $\text{Power at 750 volts} - \text{Power at 450 VDC} / (\text{divided by}) 300 \text{ volts D.C.}$

- J. If the results of any contact rail heater test do not conform to the specifications, an additional test series of each kind shall be made on a further set of samples. Failure of any of these additional tests will be cause for rejection of the entire production lot.

## **70.4.0 Shipment and Acceptance**

### **70.4.1 Shipment**

- A. Contact rail heaters shall be shipped to the locations indicated in the Bid Documents.
- B. Contact rail heaters shall be shipped on plastic reels non-returnable, length and track designation as stipulated in Attachment A. The reels shall be stacked and secured in an open bed trailer truck, suitable for removal with overhead cranes or high lifts.

- C. Contact rail heater shipments shall be identified with the name of the manufacturer, the description, the length, the PATH purchase order number and the contact rail section for which it is intended.

**70.4.2 Acceptance**

- A. Final acceptance of contact rail heaters will be subject to verification of count and inspection.
- B. Contact rail heaters which do not comply with PATH's requirements or which, notwithstanding tests, inspection or acceptance at any previous time or location are found to contain deficiencies, will be rejected.
- C. The manufacturer shall assume the expense of handling and transporting rejected material.

TABLE I:

<u>TEST DESCRIPTION</u>	<u>TEST SEQUENCE</u>			
A. VISUAL AND DIMENSIONAL EXAMINATION	A			
	:			
B. DIELECTRIC WITHSTANDING VOLTAGE	:			
	:			
C. INSULATION RESISTANCE	B			
	:			
D. POWER OUTPUT	C			
	:			
E. OVER VOLTAGE	:			
	:			
F. MAXIMUM SHEATH TEMPERATURE	D			
	:			
G. SELF REGULATING INDEX	E	F	G	H
	:	:		
H. VOLTAGE INDEX	B	B		
	:	:		
	C	C		
	:	:		
	D	D		