

Pre-Exciter Power Supply Re-Manufacture

**Presented to: Operations Committee
November 18, 2014**

Greater Cleveland Regional Transit Authority

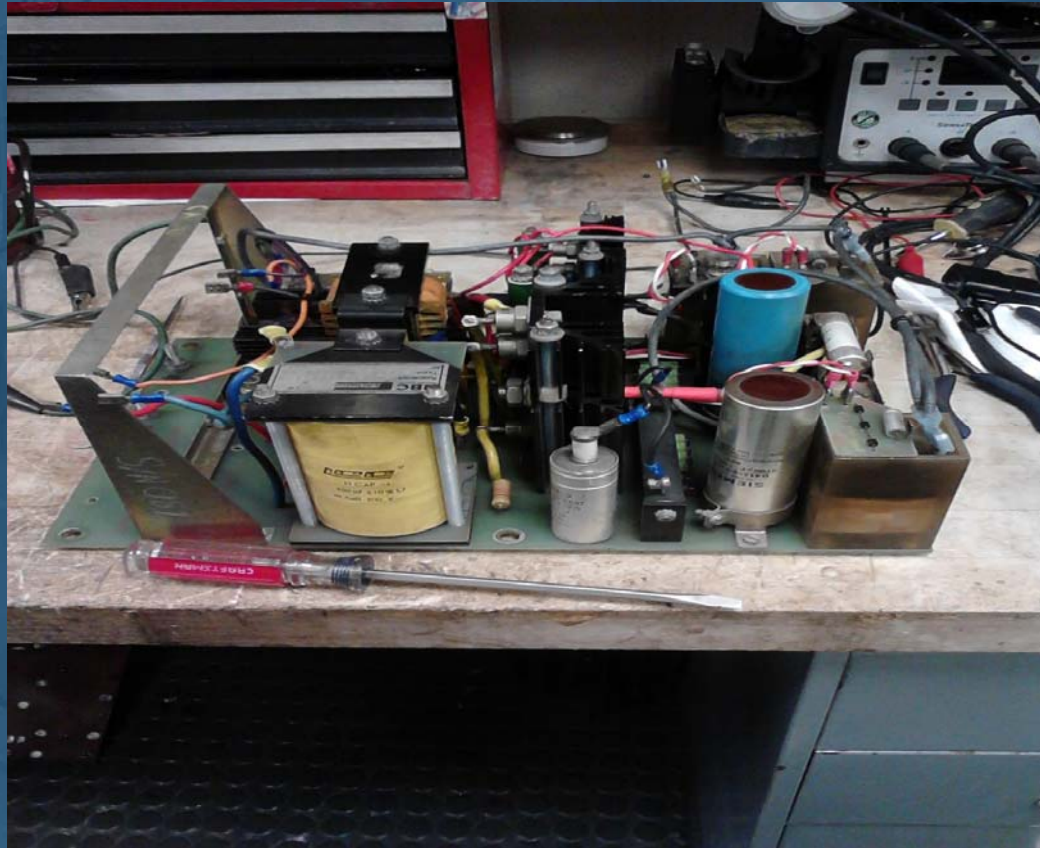


Pre-Exciter Power Supply Re-Manufacture

Function

- Traction electric motors (2) provide energy to propel train.
- When braking is needed, the current is reversed in the motor, and braking occurs, slowing the wheels.
- The added braking power increases the life of the friction brakes.
- The Pre-Exciter is the source that reverses the current, invoking a braking response.

Pre-Exciter Power Supply Re-Manufacture



Pre-Exciter Power Supply Re-Manufacture

History

- Pre-exciter designed and built in the late 1970's, unique for GCRTA.
- Parts needed for replacement (diodes, capacitors, etc.) no longer exist.
- Age is the most common mode of failure (heat, worn insulation).

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Justification - Scope of Work

- Proposal will enable purchasing a functional and reliable device.
- Testing will be imperative to guarantee the replacement is seamless, reliable with regard to reliability and repairable within the Rail Shop, if needed.
- Two Phases
 - Phase 1: Prototype and 8 units
 - Phase 2: 60 units to outfit all cars

Pre-Exciter Power Supply Re-Manufacture

Procurement Overview

- RFP issued July 28, 2014
- Notification sent to 9 potential proposers
- 13 potential proposers downloaded RFP
- 3 proposals received September 9, 2014

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Procurement Overview

- Evaluation Panel Members:
 - Engineering
 - Operations (Rail Equipment)
 - Procurement
 - Safety

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Procurement Overview

- Evaluation Criteria
 - Proposed Approach and Response
 - Firm's Reputation and Responsibility
 - Cost Effectiveness/Price

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Procurement Overview

- Recommended Vendor:
 - SIL4 Systems, Inc.
 - Pittsburgh engineering firm specializing in Rail Transit
 - Staff combined for 90+ years experience in leading transit companies such as Ansaldo STS, Bombardier, Union Switch & Signal, and WABTEC
 - Familiarity with LRV chopper propulsion system, having three team members who worked on RTA LRV Overhaul

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Procurement Overview

- Firm Experience
 - Ansaldo STS, Bombardier Transportation, GCRTA, Miami-Dade Transit, National Railway, Thomas Rail Corp., Universal Electric Corp.
 - APTA and Transportation Research Board membership
- A 0% DBE goal was assigned to this project

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Procurement Overview

- Recommendation

- Staff requests that the Operations Committee recommend award to SIL4 Systems, Inc. in an amount not to exceed \$197,168.00 for the base prototype, eight (8) production level units, and services, with an option for up to sixty (60) additional production level units and services not to exceed \$353,020.00 for a total contract not to exceed \$550,188.00