



Engineering, Operations, & Technology Committee

# Gene Pumping Plant Unit No. 1 Brushless Motor Exciter System – Procurement

Item 7-4

February 12, 2024

Item 7-4  
Gene Pumping Plant  
Unit No. 1  
Brushless Motor  
Exciter System -  
Procurement

## Subject

Award a \$544,501 procurement contract to Electric Machinery Company – A WEG Group to furnish one brushless motor exciter system for Gene Pumping Plant Unit No. 1

## Purpose

Procure one brushless motor exciter system to conduct a pilot project that will take advantage of current technology, extend the service life & reduce the potential of unplanned shutdowns

## Recommendation and Fiscal Impact

Award a procurement contract  
Fiscal Impact of \$785,000

## Budgeted

# Location Map



## Gene Pumping Plant Unit No. 1

### Brushless Motor Exciter System - Procurement



Brush Type Motor Exciter  
(Typ.)

## Background

- CRA has 45 main motor units at the five pumping plants
  - Exciter housed inside pump motor
  - Exciter system provides direct current power to maintain synchronous speed
  - Motor unit's exciter exhibiting wear & tear after 80+ years of service
  - Exciters needed substantial maintenance due to brush wear causing carbon contamination
- Staff initiated comprehensive, multi-year program to rehabilitate pump units
  - Pilot project recommended



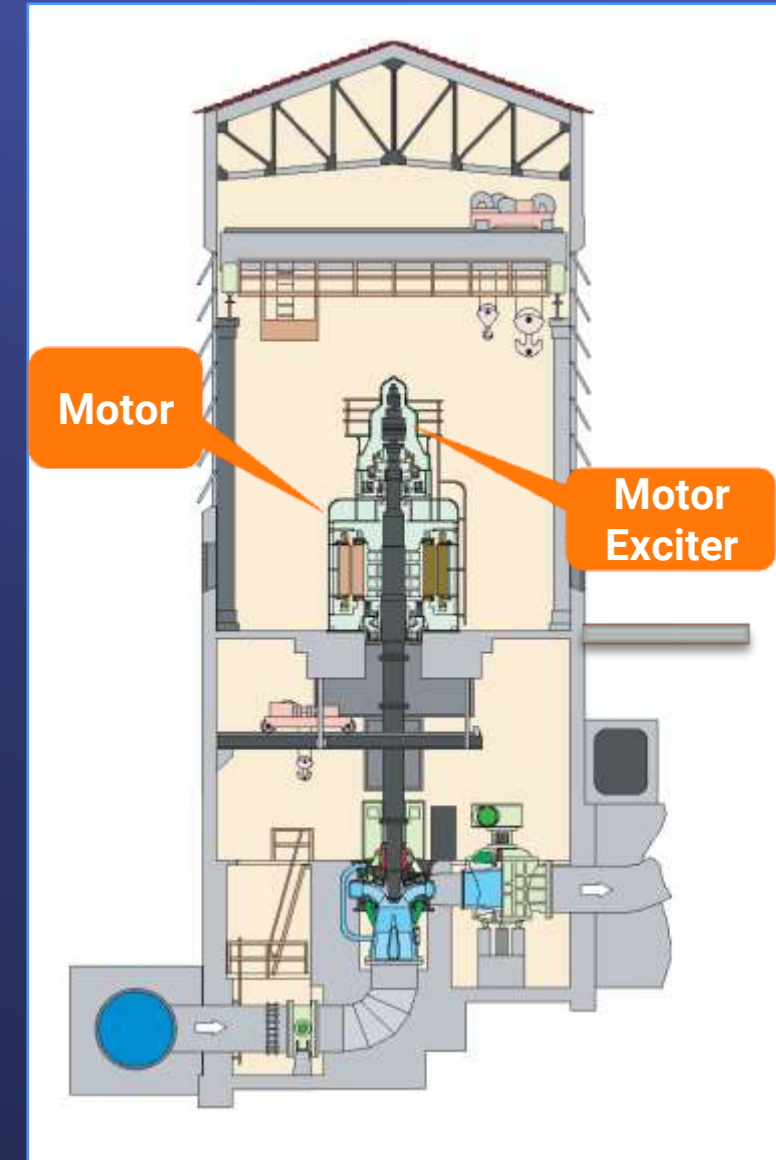
Gene Pumping Plant  
Unit No. 1  
Brushless Motor Exciter  
System - Procurement

## Alternatives Considered

- Refurbish the existing brush-type motor exciter system
  - Requires training personnel to optimize the aged system, manufacture obsolete parts & provide ongoing maintenance
- Selected Alternative
  - Takes advantage of current technology
  - Potentially decreases long-term maintenance

# Scope of Work

- Contractor
  - Furnish one brushless motor exciter system for Gene Pumping Plant Unit No. 1
- Metropolitan
  - Factory fabrication inspection
  - Submittals review
  - Contract administration & project management



CRA Pumphouse Configuration  
(Typ.)

# Bid Results

## Specifications No. 2056

Bids Received	December 19, 2023
No. of Bidders	1
Responsible Bidder	Electric Machinery Company – A WEG Group
Bid	\$544,501
SBE Participation*	N/A

\*SBE (Small Business Enterprise) participation level not established for procurement contract

# Allocation of Funds

## Gene Pumping Plant Unit No. 1 Brushless Motor Exciter System – Procurement

### Metropolitan Labor

Owner Costs (Proj. Mgmt., Contract Admin.)	\$ 64,000
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Procurement Inspection & Support	65,000
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Submittals Review, Tech. Support	78,000
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### Procurement Contract

Electric Machinery Company – A WEG Group	544,501
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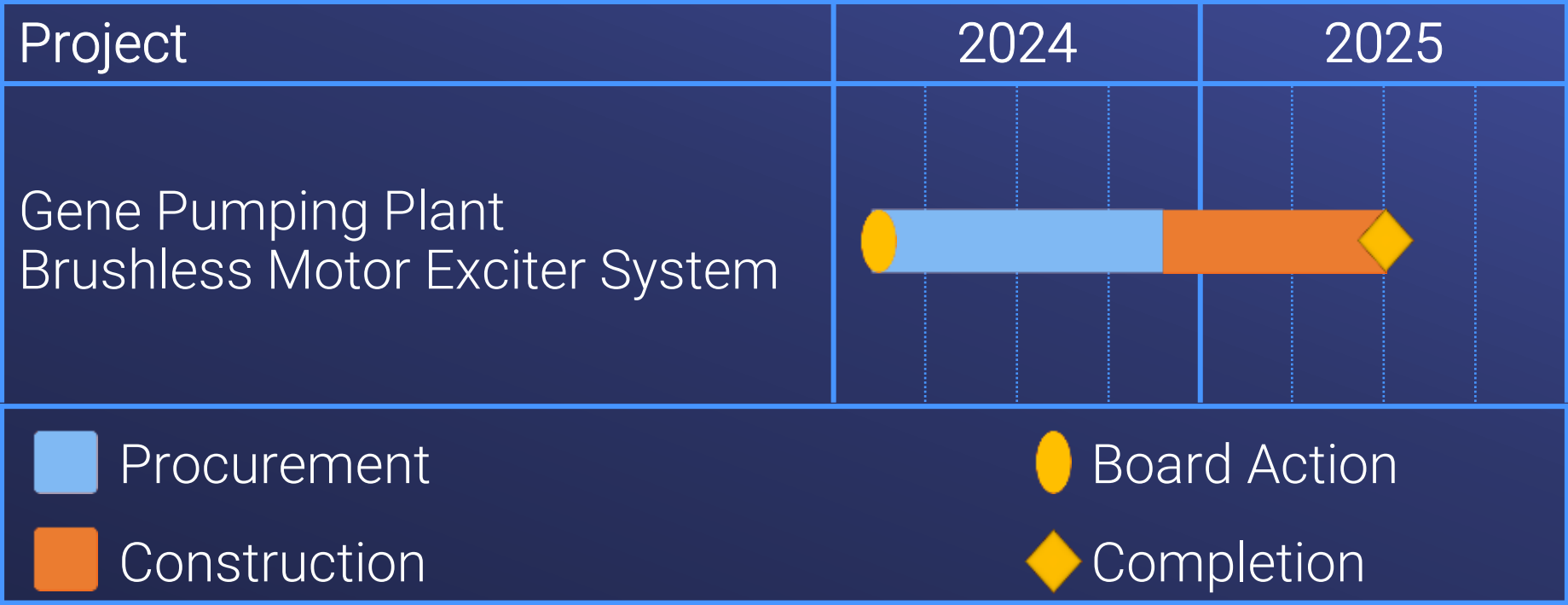
Remaining Budget	33,499
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Total	\$ 785,000
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# Project Schedule



# Board Options

- Option #1

Award a procurement contract to Electric Machinery Company – A WEG Group in an amount not to exceed \$544,501 to furnish a brushless motor exciter system for Gene Pumping Plant Unit No. 1.

- Option #2

Do not proceed with the project at this time.

# Board Options

- Option #1

