

# Business Item 2023-83

Metro Plant Steam Turbine Sole Source

Environment Committee: April 11, 2023



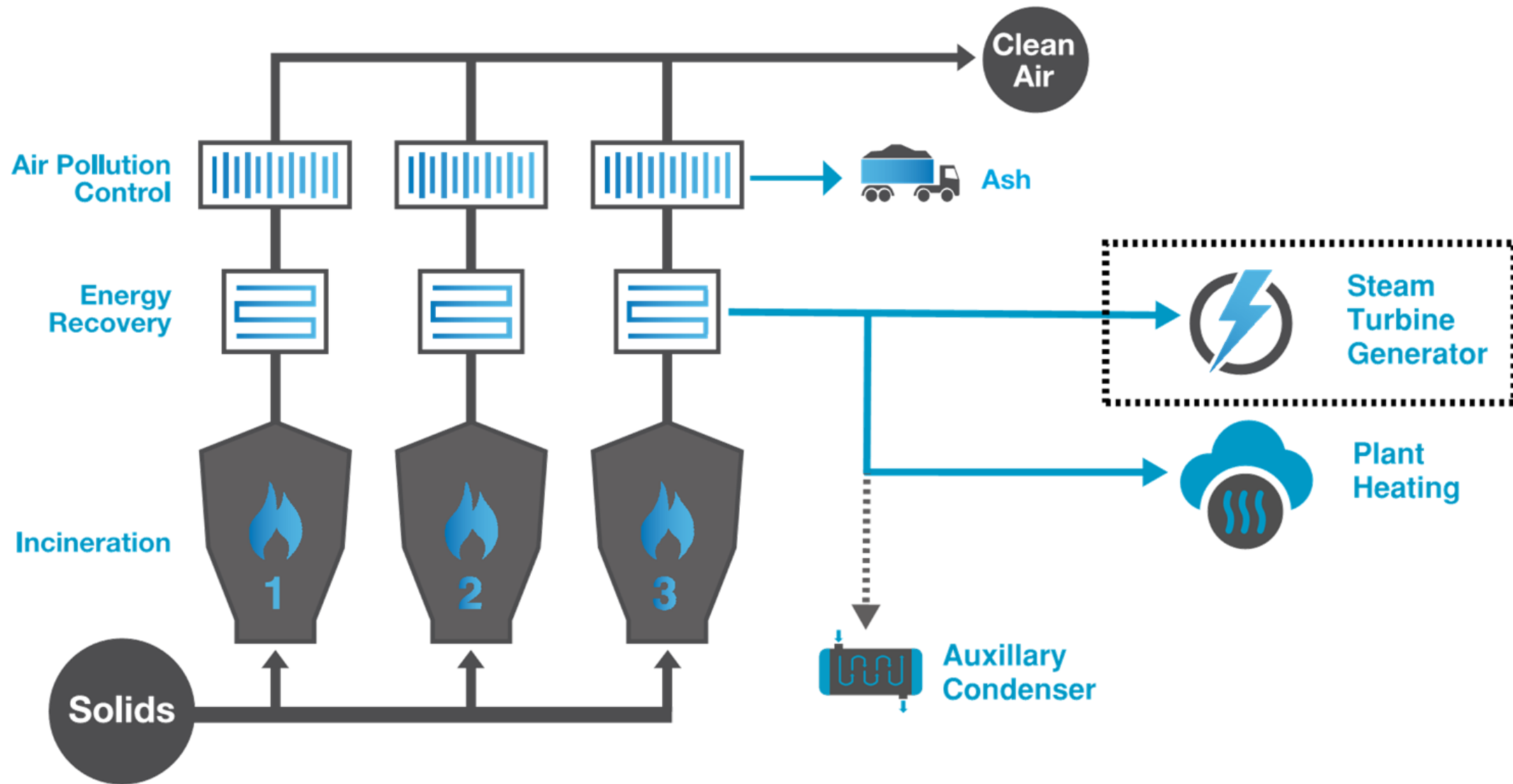
Craig Edlund / Dan White



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# Background



*The energy recovered from the steam turbine generator reduces purchased electricity and offsets carbon emissions from fossil fuel based electricity.*

# Current Condition

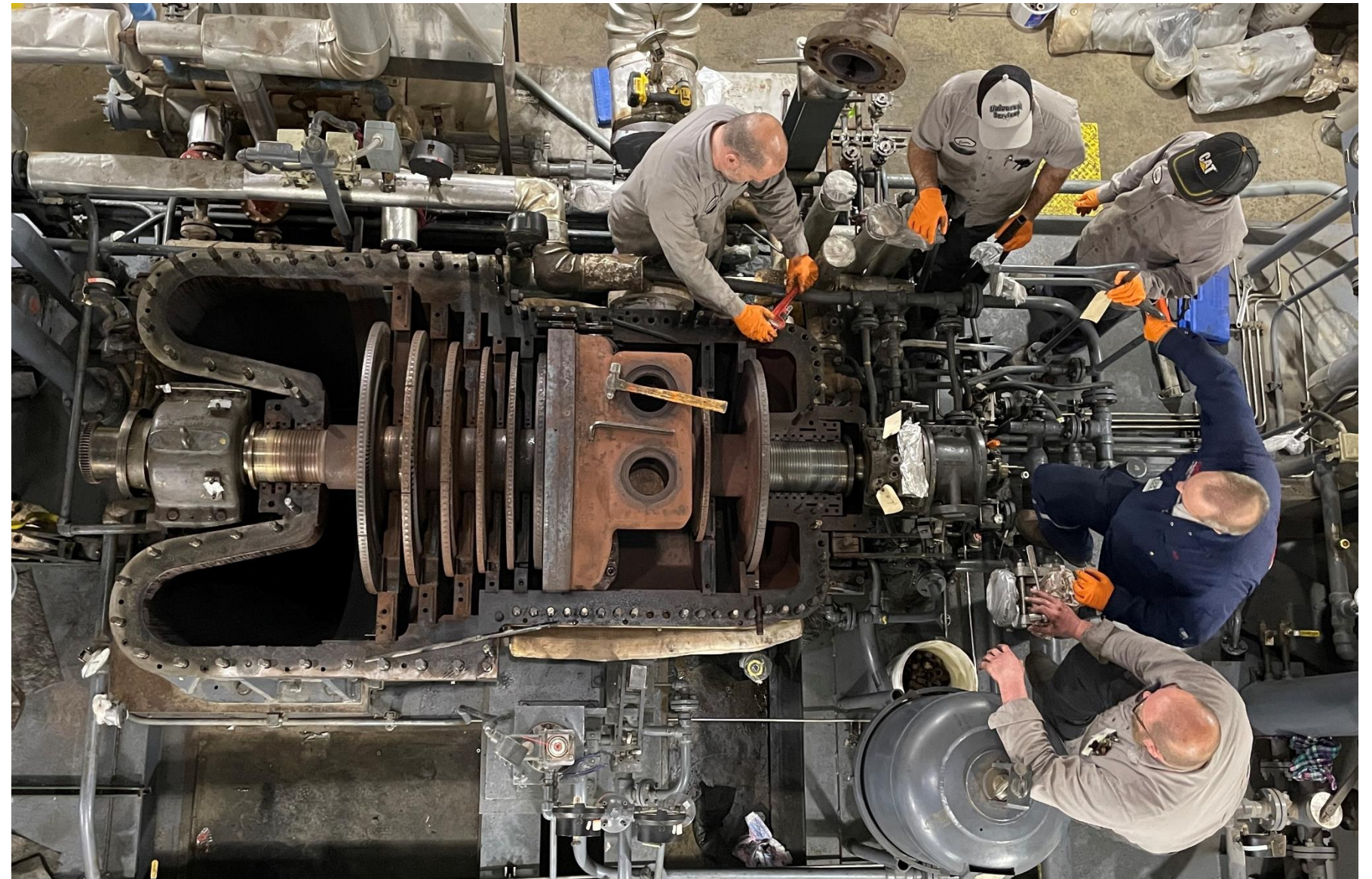
- Five-year preventative maintenance inspection
  - Internal corrosion
  - Internal erosion
  - Bowed rotor shaft
- Cost of refurbishing rotor has a greater cost and longer lead time than a new rotor.



# System Improvements

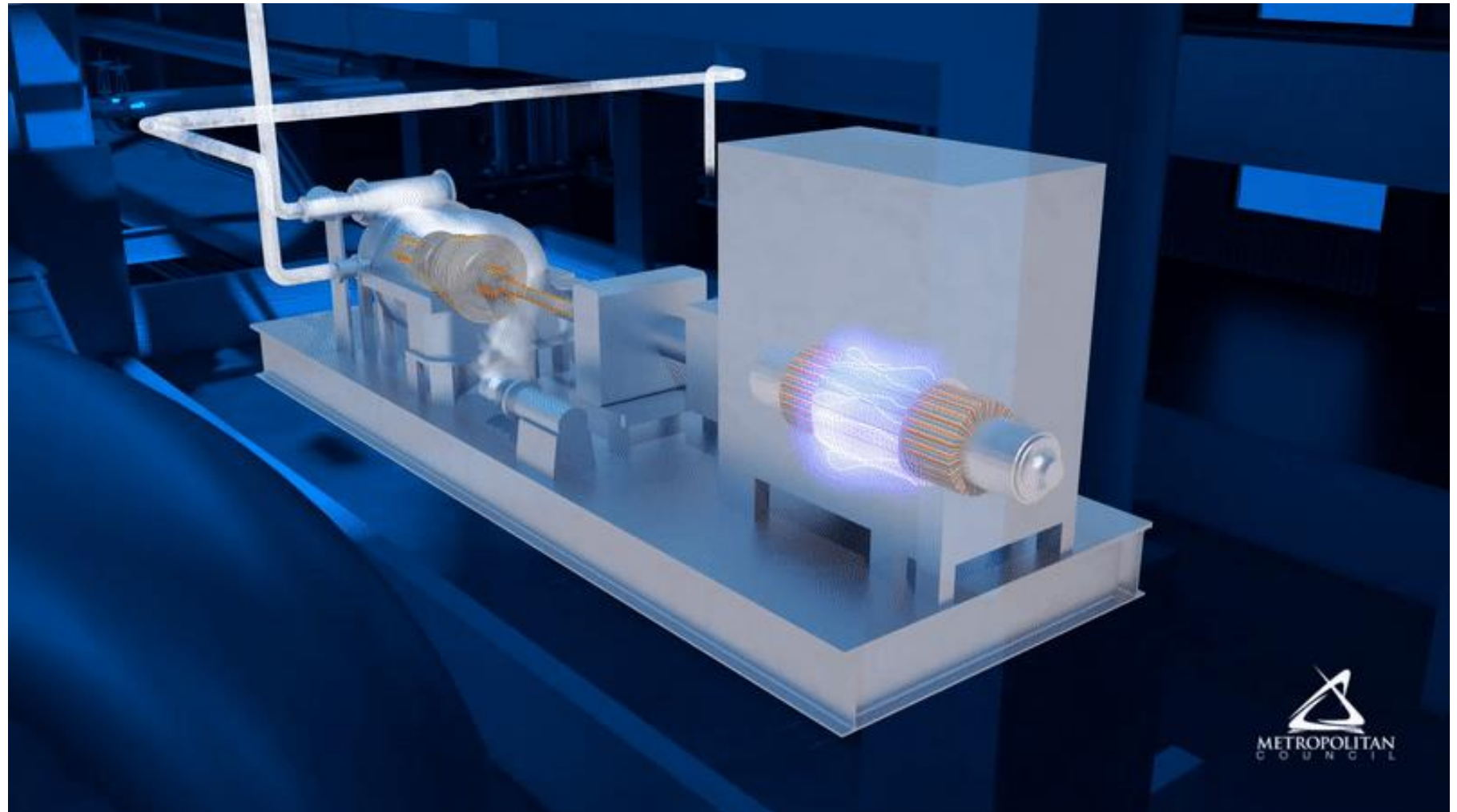
Based on observations during the preventative maintenance inspection, the following system improvements are under consideration:

- Steam trap improvements
- Automatic turning gear
- Moisture mitigation
- Steam strainer
- Boiler feedwater quality



# Sole Source Justification

- Siemens-Energy is the original equipment manufacturer (OEM).
- Using non-OEM components would require re-engineering and greater risk not meeting form, fit, and function of original components.
- Price of quoted parts are comparable to previous quotes and industry costs.



# Scope of Services

- Rehabilitation
  - Repair and rehabilitate turbine casing, extraction case, and diaphragms.
  - Replace rotor shaft, discs, blades, shrouds, and assemble rotor.
  - Provide other replacement parts as required for reassembly.
- Installation
  - Install new rotor and reassemble steam turbine.
  - Provide commissioning services.

# Proposed Action

That the Metropolitan Council authorize the Regional Administrator to execute a sole source contract 23P036 with Siemens-Energy to provide replacement parts, repair, installation, and commissioning services for a steam turbine generator in an amount not to exceed \$2,000,000.





# Questions

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