

COUNCIL ACTION FORM

SUBJECT: AUTHORIZE ADDITIONAL REPAIRS TO WATER POLLUTION CONTROL FACILITY METHANE ENGINE NO. 2

BACKGROUND:

The Water Pollution Control (WPC) Facility recently replaced one of its methane engine generators (MG #1) with a boiler. As part of this project, Waldinger Corporation, the general contractor, was also tasked with upgrading the controls on the two remaining methane engine generators (MG #2 and MG #3).

On January 12, 2021, a catastrophic event occurred to MG #2 making it no longer operable. During the controls upgrade, a subcontractor to Waldinger was observed multiple times operating MG #2 engine without first notifying City staff as required by the contract. There were several events that occurred when the engine was under the control of the subcontractor that staff believes were a direct cause of the failure of MG #2.

Staff has attempted to resolve the issues with the general contractor and get repairs made at no cost to the City. The general contractor and its subcontractor do not agree that the repairs are their responsibility. **The damage claim will take time to resolve. Delaying the repairs will result in ongoing electrical demand charges from the rural cooperative that serves WPC.**

Staff utilized the rapid needs procurement process allowed by the City's Purchasing Policies and Procedures and directed Interstate PowerSystems to begin repairs on the engine. Interstate PowerSystems was already under contract for routine maintenance on the standby engine at WPC, and the company has a track record of being very cost competitive on this type of engine work.

Interstate PowerSystems initially determined that two of the engine's cylinders were damaged and needed to be repaired. The original repair costs of \$24,253 were able to be approved using the department's purchasing authority. During the repairs, additional damaged components were discovered which required a cost increase of \$7,070. This pushed the total dollar amount over the departmental threshold and the cost increase was approved by the City Manager's Office.

After making the repairs to the two damaged cylinders, an operational check of the engine was performed before placing it back in service. It was discovered that two additional cylinders would not pass a compression test and required additional repair work. **Interstate PowerSystems has proposed repairs to the two additional defective cylinders for \$22,264. The additional work brings the total purchase order amount to \$53,587, which requires Council approval.**

The funding for the repairs will be from the CIP budget for the Methane Engine Generator Replacement Project. The project budget and estimated project expenses are shown below.

Authorized Funding

Budgeted in FY 2018/19 CIP	\$ 1,515,000
Savings from Structural Rehab (<i>reallocated in Fall 2019 amendments</i>)	325,000
Savings from Primary Clarifier Drive Replacement Project	124,000
Total Available Funding	\$ 1,964,000

Revised Project Expenses

Engineering	
Design	\$ 165,000
Bidding and Construction	89,200
Amendment 1 (<i>Additional Construction Services</i>)	15,000
Construction	
Original Contract	1,554,270
Change Order 1 (<i>Electric Peak Shaving</i>)	(12,000)
Change Order 2 (<i>New Starter Bucket</i>)	6,263
Misc. Project Parts/Supplies	5,798
Laboratory Testing Services	711
Permits	100
MG #2 Cylinder Repair	
Original cost estimate	24,253
Additional parts and labor	7,070
Additional Repairs (<i>This Action</i>)	22,264
Total Estimated Expense	\$ 1,877,929

It is the opinion of staff and Interstate PowerSystems that the damage appears to be catastrophic in nature, and not simply “old age” failure as Waldinger’s subcontractor is asserting. Staff believes the damage is a result of the contractor’s negligent operation of the equipment in a manner that was contrary to the requirements of the specifications.

W&PC staff is working with the City Attorney to pursue a damage claim against the general contractor. Staff is withholding payment to Waldinger in an amount equal to the total damages caused by the contractor (estimated to be in the \$150,000+/- range for the engine damage and the increased engineering and utilities costs resulting from the inoperable engine since January) plus the normal five percent retainage and twice the value of remaining uncompleted punch list work.

ALTERNATIVES:

1. Authorize additional repairs to Water Pollution Control Facility Methane Engine No. 2 by Interstate PowerSystems of Altoona, IA, in the additional amount of \$22,264.
2. Do not authorize the additional repairs until such time as the damage claim against the general contractor has been resolved. This could result in increased operational costs to the WPC Facility as a result of the lost ability for peak shaving on the electrical utility bills.
3. Do not authorize any additional repairs to MG #2. This will result in a permanent decrease in the WPC Facility's ability to generate electricity from the renewable methane produced at the facility.

CITY MANAGER'S RECOMMENDED ACTION:

The methane engine is important to the facility by generating electricity, which in turn reduces the energy that must be purchased from the electric utility to operate the facility. The contractor and subcontractor who were operating the equipment prior to the failure do not feel they have any responsibility in the damage. Resolving this disagreement will take time. It is important to return the engine to service as soon as possible to avoid increasing the operating costs of the WPC facility.

Therefore, it is the recommendation of the City Manager that the City Council adopt Alternative No. 1, as described above.