



CITY OF GLENDALE, CALIFORNIA REPORT TO THE CITY COUNCIL

AGENDA ITEM

Report: Grayson Power Plant (GPP) Unit 9 Continuous Emission Monitoring System (CEMS) Replacement Project.

1. Resolution authorizing an alternative procurement method, dispensing with competitive bidding and authorizing the City Manager, or his designee, to negotiate and execute a design-build contract with Cemtek Environmental Inc. dba CEMTEK KVB-Enertec (CEMTEK) for the GPP Unit 9 CEMS Replacement Project in an amount not to exceed \$530,000.
2. Resolution of Appropriation.

COUNCIL ACTION

Item Type: Action Item

Approved for October 11, 2022 **Calendar**

EXECUTIVE SUMMARY

The Grayson Power Plant (GPP) Unit 9 has a Continuous Emissions Monitoring System (CEMS) to comply with applicable local, state, and federal air pollution regulations and permit conditions. Major components of the existing GPP Unit 9 CEMS, installed in 2003, in particular the analyzers, are past their design life requiring replacement due to parts obsolescence. GPP Unit 9, being the City newest and most reliable unit, is highly relied upon by Glendale Water & Power (GWP) to provide the City with local dispatchable generation.

GWP staff is requesting City Council approval to utilize the “design-build” method of procurement, dispense with competitive bidding, and authorize the City Manager, or his designee, to negotiate and execute a design-build contract with CEMTEK in an amount not to exceed \$530,000 to replacement the GPP Unit 9 CEMS, and approve a resolution of appropriations to fully fund the project.

COUNCIL PRIORITIES

Exceptional Customer Service: GWP will be able to ensure uninterrupted service and increase the reliability of the City’s power supply.

Infrastructure & Mobility: GWP will be able to provide a more reliable source of electric generation for the City of Glendale.

Sustainability: A reliable and working CEMS would ensure better emission monitoring which would in turn result to responsibly minimize the impact to the environment.

RECOMMENDATION

Adopt a Resolution authorizing an alternative procurement method, dispensing with competitive bidding and authorizing the City Manager, or his designee, to negotiate and execute a design-build contract with CEMTEK for the GPP Unit 9 CEMS Replacement Project in an amount not-to-exceed \$530,000, and adopt a Resolution of Appropriation to fully fund the project.

BACKGROUND

GWP generates, transmits, and distributes electricity to over 88,000 residential, commercial, and industrial customers in Glendale. GPP Unit 9, commissioned in 2004, is Glendale's newest and most reliable local gas turbine generator designed to generate up to 48 megawatts of electricity.

The GPP Unit 9 CEMS is a Title V air permit requirement and an integral part of the unit providing the necessary feedback to properly report emissions to regulatory agencies such as the South Coast Air Quality Management District (SCAQMD) and the Environmental Protection Agency (EPA). The CEMS helps GWP operate the unit in the most environmentally responsible way possible. It consists of five flue gas analyzers, a natural gas flow rate meter, a sample transport, conditioning and calibration units and the data acquisition, reduction, and recoding units. The flue gas analyzers are highly sensitive, microprocessor-based analytical devices comprised of several components used to measure and convert the concentration of specific constituents into an electrical signal. The equipment is housed in a climate controlled enclosure, a CEMS shelter.

Over the course of the past 17 years since its commissioning in 2004, GWP has been able to maintain the CEMS including the original analyzers through periodic preventative maintenance and the repair/replacement of a few analyzer and conditioning system components. The work has been accomplished with support from Horiba Instruments Inc. (Horiba), the original supplier of the CEMS (except for the natural gas flow rate meter) and the original equipment manufacturer of the analyzers. However, with the analyzers at their end-of-life and Horiba discontinuing their manufacturing, a replacement of the CEMS is necessary to address the fact that analyzer replacement parts are either in low inventory, have to be ordered from Japan, which have a long lead time, or are no longer available (obsolete).

The GPP Unit 9 CEMS Replacement Project will replace the flue gas analyzers, the sample transport, the conditioning and calibration units, and the data acquisition, reduction, and recording units. The existing CEMS shelter, calibration gas bottles and associated regulators, sample line cable trays, load center and circuit breakers, and the plant data acquisition and handling system (DAHS) will be reused.

ANALYSIS

Alternative Project Delivery Method

GWP recommends using the “Design-Build” project delivery method rather than the traditional “Design-Bid-Build” method for the GPP Unit 9 CEMS Replacement Project, due to the high level of technical complexity of the project and the time savings that can be achieved using the Design-Build method, and because the project requires expertise that the City does not have.

Design Build procurement is an “alternative project delivery method” under the City’s Alternative Project Delivery Method Ordinance (Chapter 4.13 of the Glendale Municipal Code). The Ordinance requires an alternative project delivery method to be authorized by the City Council before utilizing the alternative project delivery method. GWP recommends that that City Council authorize the use of the Design-Build procurement method for the GPP Unit 9 CEMS Replacement Project, and authorize GWP to dispense with competitive bidding and negotiate and award a contract with CEMTEK for the project.

Under the traditional method of Design-Bid-Build, the project would require multiple procurement, contract negotiation, and approval processes which, along with additional administrative processes and project coordination, would extend the project’s delivery date. In contrast, Design Build project delivery method is streamlined. The Design-Build procurement method means the City would enter into one contract for the design and development of plans and the supply and installation of the CEMS equipment.

With the Design Build method, the City can achieve time savings compared to the City’s traditional construction method. This is a critical consideration as Grayson Unit 9 is critical to GWP’s power supply. Allowing procurement and installation to begin relatively soon after the start of engineering will help reduce the procurement window, and allow the new CEMS to be installed quickly to continue to meet Title V requirements. Additionally, using the Design-Build method will minimize project cost and risk by integrating the design and construction processes, avoiding the communication gap and potential errors that can occur when the engineering and construction work are separated between two contractors. On September 2, 2022, the General Manager of GWP obtained the City Manager’s approval for the proposed alternative procurement method for the Balance of Site Contractor, as required by Glendale Municipal Code Section 4.13.070 (See Exhibit A).

Dispensing with Competitive Bidding

Although Horiba offers a newer replacement model analyzer, it no longer has a local field service technician to support GWP in a timely manner. Horiba has also moved its Irvine, California repair facility to Houston, Texas. As such, for onsite support, the regional field service technician must be dispatched from their Houston office. To minimize potential downtime, GWP requires a vendor who has local field service technicians that can be onsite within hours of an emergency service call. Horiba, at this time, does not provide this service nor does it see the need to.

Article VI Section 9 of the Charter states that: “upon recommendation of the City Manager, the council may dispense with competitive bidding for any contract when it determines that it is in the best interests of the city so to do and acts by resolution setting forth the reason for such action.” In accordance with the Glendale Charter, staff recommends dispensing with competitive bidding and executing a Design-Build contract with CEMTEK for the following reasons:

1. CEMS integration is a highly specialized service that must strictly adhere to the applicable local, state and federal regulations and permit requirements.
2. After the decommissioning of GPP Units 1-8, and until new units are constructed and commissioned at the site, GPP Unit 9 will be GWP’s only source of dispatchable local generation. Having a reliable CEMS, and the necessary local support, will be critical in helping to minimize potential downtime and to maximize the unit’s availability to generate power for the City when it is needed the most.
3. CEMTEK is a leading local CEMS integrator. For the past 35 years, CEMTEK has installed many CEMS in the SCAQMD area. CEMTEK has extensive experience, having completed services to power plants for the Cities of Pasadena, Burbank, Riverside, Anaheim and the Los Angeles Department of Water & Power Scattergood and Haynes Facilities. CEMTEK has ongoing projects with Southern California Edison. CEMTEK has successfully replaced a Horiba CEMS for the City of Pasadena, just recently, and has installed and services many different analyzers from different manufacturers such as Rosemount, AMETEK, Thermo Scientific, ABB, Teledyne Technologies, etc.
4. CEMTEK has a robust full-service team from consulting, engineering and design, permitting, training and emergency support that can complete the project from start to finish and provide the necessary onsite support to maintain the new CEMS.
5. CEMTEK has large stocks of CEMS spare parts and equipment to execute the project with minimal interruption to the operation and availability of the unit. CEMTEK can deliver the equipment within 20 weeks of receiving the order and complete the installation, commissioning, and training in an additional two weeks.
6. The City’s standard bidding process, which takes approximately three to six months for a contract in place and the long lead time of equipment (20 weeks), will not allow for this project to be completed alongside the Grayson Repowering Project – Unit 9 Separation work which is scheduled to commence in the Spring of 2023. In doing so, it will allow for Unit 9 to be available in operation for the 2023 Summer peak demand.
7. CEMTEK’s proposal includes an industry standard 12-month warranty from start-up or 18 months from shipment, whichever occurs first.

CEMTEK’s scope of work includes project management; evaluation and field verification of existing site conditions; engineering and design; factory acceptance testing; shipping, and all necessary labor, material, and equipment to complete the replacement work. GWP will be responsible for providing utilities and calibration gases, receiving and inspecting new equipment when it arrives at the GPP, moving the new equipment to the GPP Unit 9 CEMS shelter for CEMTEK to install, and disposing of the removed old equipment, and providing a remote access connection to the plant DAHS for remote

support and software warranty purposes. GWP will also be responsible for providing third-party services such as onsite testing for regulatory purposes.

CEMTEK’s proposed payment schedule for the equipment is ten percent upon award, 25% upon transmittal and acceptance of engineering drawings, 35% upon receipt of major material at CEMTEK factory, and 30% upon shipment of equipment. Field Services will be billed upon completion and based on time and material rates, subject to a five percent retention.

STAKEHOLDERS/OUTREACH

Not applicable.

FISCAL IMPACT

The GPP Unit 9 CEMS Replacement Project is estimated to cost \$530,000, which was not included as a part of the FY 2022-23 approved budget. Therefore, staff is requesting for an appropriation of \$270,000 from City’s Net Position fund balance. The appropriation request is outlined below:

Existing Appropriation			
Amount	Account String		Funding Source
\$260,000.00	GL: 51200-5830-GWP-0020 PL: GWP00459AN		GWP Electric Depreciation Fund
Requesting Appropriation			
Amount	From (Account String)	To (Account String)	Funding Source
\$270,000.00	GL: 27900-5810-GWP-0000	GL: 51200-5830-GWP-0020 PL: GWP00459AN	GWP Electric Depreciation Fund

ENVIRONMENTAL REVIEW

This project is Categorically Exempt under the provision of the California Environmental Quality Act (CEQA) pursuant to the California Code of Regulations, Title 14, Division 6, Chapter 3, Article 19, Section 15301 which exempts “the operation, repair, maintenance, permitting, leasing, licensing, or minor alteration of existing public or private structures, facilities, mechanical equipment, or topographical features, involving negligible or no expansion of existing or former use.”

CAMPAIGN DISCLOSURE

The names and business addresses of the members of the board of directors, the chairperson, CEO, COO, CFO, subcontractors and any person or entity with more than ten percent interest in the company proposed for contract in this Agenda item report are attached in Exhibit B, in accordance with the City Campaign Finance Ordinance No. 5744.

ALTERNATIVES

Alternative 1: Dispense with competitive bidding and authorize the funding, negotiations and execution of a Design-Build contract with CEMTEK to replacement the GPP Unit 9 CEMS as recommending herein. This would help minimize potential downtime of the unit and maximize its availability to serve the City.

Alternative 2: Do not adopt, dispense with competitive bidding or authorize the funding, negotiations, and executions of the contract as recommended herein. This would increase the risk of a prolong outage with GPP Unit 9 and delay the project.

Alternative 3: Consider any other alternative not proposed by staff.

ADMINISTRATIVE ACTION

Prepared by:

Scott Mellon, Assistant General Manager - Power Management

Approved by:

Roubik R. Golanian, P.E., City Manager

EXHIBITS / ATTACHMENTS

Exhibit A: Alternative Project Deliver Method Memo to City Manager dated September 2, 2022

Exhibit B: Campaign Disclosure Form for CEMTEK.