

Agenda Report

June 2, 2014

TO: Honorable Mayor and City Council

THROUGH: Municipal Services Committee (May 20, 2014)

FROM: Water and Power Department

SUBJECT: AUTHORIZATION TO ENTER INTO A CONTRACT WITH ARB INC., FOR AN AMOUNT NOT TO EXCEED \$55,661,973 TO PROVIDE LABOR AND MATERIALS FOR THE GLENARM REPOWERING BALANCE OF PLANT DESIGN AND CONSTRUCTION

RECOMMENDATION:

It is recommended that the City Council:

1. Find that, on April 8, 2013, the City Council made findings pursuant to the California Environmental Quality Act ("CEQA") and certified the EIR for the Glenarm Repowering Project, adopted a Statement of Overriding Considerations, and approved the Repowering Project, the Glenarm Repowering Balance of Plant ("BOP") Design and Construction contract is a further discretionary action within the Repowering Project, and there are no changed circumstances or new information that would trigger further environmental review;
2. Accept the bid dated April 8, 2014, from ARB Inc. in response to Specifications LD-13-14 for providing labor and materials for the Glenarm Repowering BOP Design and Construction; and
3. Authorize the City Manager to enter into a contract with ARB, Inc. for an amount not to exceed \$55,661,973.

EXECUTIVE SUMMARY:

On March 16, 2009, the City Council adopted the energy Integrated Resource Plan ("IRP"), a 20-year plan for Pasadena Water & Power ("PWP") to deliver reliable and environmentally responsible electricity at competitive rates. One of the key recommendations of the energy IRP was the installation of a new combined cycle unit to replace the existing steam Unit B-3 with equivalent capacity of 71MWs. The energy IRP was updated on March 5, 2012 and it retained the recommendation to replace Unit B-3. The installation of the new combined cycle unit (which is referred to as GT-5) is known as the Glenarm Repowering Project ("Repowering Project"). GT-5 is expected to be commercially operational by May/June of 2016. The Repowering Project is on schedule

and within budget so far. The staff is striving to leverage this project to maximize benefit to the community through the "Pasadena First – Buy Local" program and prioritizing employment opportunities for Pasadena residents through use of a Project Labor Agreement ("PLA"). PWP has been regularly updating the Municipal Services Committee about the Repowering Project status.

The Repowering Project planning phase (preliminary engineering, site investigation, budgeting, environmental approvals and permits) is complete. The development phase (engineering, procurement, and construction) is underway. A number of City Council approvals related to budget, major contracts, California Environmental Quality Act ("CEQA") and Environmental Impact Report ("EIR"), bond issuance, and the PLA have been obtained. Exhibit-1 summarizes key milestones accomplished thus far.

The BOP Design and Construction contract proposed herein is the last major contract for the Repowering Project. While General Electric ("GE") will provide fourteen major pieces of equipment, known as the Power Island Equipment ("PIE"), the BOP contractor will prepare the site for construction, perform detailed engineering design, provide materials for the balance of the plant, construction, and perform commissioning to place GT-5 in regular operation. GE will provide technical assistance to the BOP contractor during the construction phase and be responsible for performance and emission guarantees. The project management will be provided by Process Unlimited International Inc. ("PROU") under the overall supervision by the PWP staff.

A two-step competitive selection process was utilized for the BOP contract. In the first step, a request for qualifications was issued in September, 2013. Staff shortlisted four of the six respondents to be qualified to bid for the BOP contract. In the second step, on December 18, 2013, those four prequalified bidders were invited to bid for the BOP Design and Construction in accordance with the Specifications LD-13-14. Four responsive bids were opened on April 8, 2014. ARB, Inc. ("ARB") was the lowest cost responsive bidder that met all the requirements of the specifications. Staff recommends the award of the BOP contract to ARB Inc., for an amount not to exceed \$55,661,973.

The lowest bid price of \$55,661,973 is approximately \$10.4 million higher than the base estimate prepared by Power Engineers, PWP's Owner's Engineer. The main reasons for the difference in estimate and bid are summarized in Exhibit-2. The higher than expected bid leaves less money for contingency and other purposes in the budget; however, given that the City's contract with ARB defines the scope of work in detail and puts considerable project risk on ARB, staff believes the contract can be accomplished within the bid price. Therefore, instead of adding a contingency for this contract, which is a common practice, staff proposes to seek City Council approval at a later date for a separate **project** contingency within the approved budget. The use of a project contingency for the BOP and other contracts related to Repowering Project would allow a better control on the overall project cost.

After providing for the proposed BOP contract amount of \$55,661,973, there will be approximately \$4 million of uncommitted funds out of the total approved project budget

of \$131,904,183 (see Table 1 for details), plus an additional \$1,676,000 of unspent contingency amounts that have been committed to existing contracts. As with any project of this magnitude, unforeseen circumstances could result in a need for additional funding. One possibility may be the discovery of greater than expected amount of contaminated soil or unknown substructures once site demolition commences, which staff believes could be handled through the proposed project contingency and within the current project budget. If more significant unforeseen events were to occur, staff will advise the City Council at the earliest indication of such event(s) and seek the City Council approval to revise the project budget. Given current information, PWP does not anticipate that more than a \$5 million upward adjustment in the project budget would be needed should significant unforeseen changes in the scope of work or equipment occur.

The project is being funded by Power Fund reserves and revenue bonds. Approximately \$80 million of bonds, of which \$55 million of net proceeds are available for the Repowering Project construction, have been issued to date. City Council approval will be requested to issue a letter of credit which will provide short-term financing during the construction phase, with the intention of replacing the interim financing with long-term revenue bonds when construction has been completed. If any change is required in the project budget, adjustments will be made in the Power Fund Capital Improvement Plan to offset any additional costs.

In addition to the above, there is also a risk of delay and additional cost associated with this project due to a pending lawsuit against the validity of the EIR process. After evaluating possible outcomes of the lawsuit, the staff recommends moving forward with this project as per the current schedule.

BACKGROUND:

The key objectives which will be achieved with the City Council approval of the GT-5 are:

- Maintain the reliability of the electric system within the City. The need for local generation from the power plant arises as the City's electricity demand exceeds its electricity import or distribution capability. Such occasions may occur when the transmission system that delivers power to the City is constrained, the electrical distribution system inside the City is constrained or being repaired, or electric market rates rise unreasonably. Unit B-3 is about 49 years old and cannot be relied on for long. Unit B-3 breaks down frequently and availability of spare parts is scarce.
- Provide for mandated reserve capacity. The guarantee of back up capacity to generate power is required by the California Independent System Operator ("CAISO"). If the City's power plant cannot generate power when required by the CAISO, there are heavy penalties. Otherwise, the City will have to purchase reserve capacity from the market at substantial costs.
- Provide for mandated Flexible Resource Adequacy Capacity. Beginning in 2015, the CAISO has mandated an additional reserve capacity requirement called

Flexible Resource Adequacy Capacity ("FRAC"). The GT-5 technology would help operate the electric grid efficiently and reliably by compensating for the unpredictability of electricity generation by renewable resources such as solar and wind. The ability of GT-5 to start and generate power within ten minutes makes it a preferred technology to meet FRAC requirements compared to the three-day start time required by B-3.

The combined cycle with once-through steam generator technology for GT-5 makes it the best available state-of-the-art least-emitting technology in its class to replace B-3 with the equivalent gross capacity of 71MW.

Contracting Summary & Status

After the GT-5 Repowering Project approval by the City Council, PWP proceeded with a two phase approach to complete the project. The first phase consisted of planning and obtaining necessary regulatory approvals. The first phase is already completed. The second phase consists of site development activities such as procurement of major equipment, construction and project management.

Under the terms of the PIE agreement, GE will provide a new gas turbine generator, steam turbine generator, once-through steam generator, condenser, wet-type cooling tower, water storage tanks, electric-powered fuel gas compressors, air compressors, inlet air chilling system, emissions monitoring and control equipment, generator step-up transformer and major pumps. GE has placed orders for the PIE and the design and manufacturing are currently underway. Delivery of the equipment will start in January 2015 and will continue through June 2015. PROU has been actively providing project management related services.

The BOP design and construction contract, which is the subject of this agenda report, includes detailed design, procurement of non-PIE equipment and materials, site preparation, construction, training and commissioning of the GT-5. PWP is executing this contract utilizing the two-part bidding process under Section 4.08.135 of the Pasadena Municipal Code. This process was selected to ensure that the most qualified contractor is hired to meet the strict schedule, stringent air quality and noise requirements, and the PLA requirements of the project. In addition, the firm must have financial stability, the highest safety standards and excellent experience to cover liquidated damages, absorb risks, and deliver the project in a safe, timely, and workmanlike manner. Under Section 4.08.135 of the ordinance, the competitive bidding for such a complex project can be completed in a two-part bidding process. The first part is a Request for Qualifications ("RFQ") element which was approved by the City Manager and City Attorney prior to publication. The second part of the two-part bidding process consists of obtaining sealed bids on the detailed specifications for the project by all responsive and responsible bidders as determined in the first part of the bidding process.

RFQ for BOP Design and Construction

PWP issued the RFQ for the Design and Construction of the Glenarm Repowering Balance of Plant project and posted it on the City's website on September 4, 2013. The RFQ was downloaded by 57 contractors and six responded. The proposals received were independently evaluated by three city staff based on the criteria stated in the RFQ. Contractors were considered pre-qualified if they met or exceeded the criteria regarding their organizational performance, provided financial information, furnished sufficient evidence demonstrating their claimed qualifications, and had demonstrated experience and expertise in the field of power plant design and construction. The evaluation yielded the following results:

<u>BIDDERS</u>	<u>RESULTS</u>
Abeinsa, Chesterfield, MO	Qualified
ARB, Inc., Lake Forest, CA	Qualified
I + Icon Energy, LLC, Pittsburgh, PA	Qualified
Wood Group Power Solution, Houston, TX	Qualified
Black & Veatch, Farmington, CT	Declined
DVBE Contractors Consultant, Van Nuys, CA	Not Qualified

Black & Veatch met the qualification criteria but declined to submit a bid. DVBE Contractors Consultant did not have the qualifications and experience to execute the project. The top four firms were invited for an interview at the Broadway Steam Plant location. Following the interviews, the four top bidders were deemed to be qualified and notified to participate in the sealed bid process.

BOP Construction Specifications and Bidding Summary

On December 18, 2013, Specifications LD-13-14 to provide labor and materials for the Repowering BOP Design and Construction was posted on the City website for the four pre-qualified firms selected in the first part of the bidding process. The four pre-qualified firms attended the mandatory job walk.

The four responsive bids were opened on April 8, 2014.

<u>BIDDERS</u>	<u>BID AMOUNT</u>
ARB, Inc., Lake Forest, CA	\$55,661,973
I + Icon Energy, LLC, Pittsburgh, PA	\$55,798,000
Wood Group Power Solution, Houston, TX	\$64,241,178
Abeinsa, Chesterfield, MO	\$82,616,414

ARB, Inc. has the lowest contract price and is the responsive bidder that met all of the requirements of the specifications. The bid price is approximately \$10,000,000 higher than the base estimate prepared by Power Engineers for the BOP Design and Construction in 2013. The difference between the estimate and the bid is mainly due to change in scope of work, City's additional builder's risk insurance requirement, and cost related to engineering, equipment and laydown area. Exhibit-2 provides a summary of "Cost Estimate and Bid Amount Comparison".

The scope of the BOP contract includes the following:

- Detailed design
- Soil remediation and demolition
- Excavation and foundation work
- Design and re-route existing storm drain
- Design and construct State Street closure requirements
- Receive and install City purchased equipment from GE
- Furnish and install balance of plant equipment not supplied by GE
- Furnish and install duct banks and piping systems
- Pull, terminate, and test cabling
- Furnish, install and calibrate instrumentations
- Furnish and install modular control room
- Furnish and install paving and fencing; and
- Furnish and perform testing, commissioning, and start up support services

Since the BOP contract defines scope of work in great detail and places considerable risk of engineering design, noise control and construction on ARB to complete the work, the staff believes further changes in scope of work would be minimal, other than underground structures and soil contamination which might be discovered during site demolition. Though the contract provides for costs based on the best estimated quantities, the actual quantities would only be known during the excavation.

ARB Inc. submitted their local participation plan which indicates that the total subcontract work for the project is about \$20,360,000. Based on their plan, ARB will subcontract and procure goods and services from local Pasadena businesses for an amount of \$4,800,000 (approximately 24% of the total subcontract). This meets the 15% threshold established in the Pasadena First - Buy Local Program of the combined dollar value of subcontract work and procurement of goods and services as required by the City in the Specifications.

ARB, Inc. has agreed to execute a PLA with the State Building and Trade Council. The City will not be a signatory party to the PLA. Construction work is tentatively scheduled to start in August 2014 and be completed in May 2016.

The proposed contract complies with the Competitive Bidding and Purchasing Ordinance, Pasadena Municipal Code, Chapter 4.08 and the Living Wage Ordinance, Pasadena Municipal Code 4.11.

Staff recommends the award of the contract to ARB Inc. for an amount not to exceed \$55,661,973 without a provision for contingency amount. While it is not a common practice to omit a contingency amount for such a large contract, given the detailed scope and risk assumption, staff believes the contract should be limited to the bid price. As stated earlier, in the near future, the staff would request City Council approval for a project contingency that would address any unforeseen issues associated with the BOP contract as well as other Repowering Project contracts.

Project Budget and Financing

On November 18, 2013, the City Council adopted a resolution confirming the award of its electric revenue/refunding bonds, 2013 series, to finance improvements to the electric system, which include the local repowering project.

The approved budget for the Capital Improvement Project (“CIP”) Budget Number 3194, “Local Generation Repowering Project” is \$131,904,183. As of March 31, 2014, the approved contracts, purchase orders and projected PWP staff cost amounts to \$72,180,529. If approved, the contract for ARB, Inc. for the sum of \$55,661,973 when added to previously approved commitments will result in a total cost for the Repowering Project of \$127,842,502 as shown in Table-1 below:

Table 1 - Project Budget Summary

Approved Budget		\$131,904,183
Approved Contracts and Committed Expenditures		
GE Package Power	\$61,870,529*	
Process Unlimited International	\$3,304,000*	
Power Engineers	\$3,000,000	
Other Contracts, P.O's and Art Funding (1% construction)	\$2,113,600	
PWP Staff Cost	\$1,892,400	
Sub Total (currently approved/committed expenditures)	\$72,180,529	
Recommended Contract Award to ARB Inc.	\$55,661,973	
Total (Contracts and Committed Expenditures including ARB, Inc.)		\$127,842,502
Remaining uncommitted budget		\$4,061,681

* These contracts include unspent contingency amounts totaling \$1,676,000

After providing for the proposed BOP contract amount of \$55,661,973, there will be approximately \$4 million of uncommitted funds out of the total approved project budget of \$131,904,183. An additional \$1,676,000 of unspent contingency amounts have been committed to existing contracts. As with any project of this magnitude, unforeseen circumstances could result in a need for additional funding. If significant unforeseen events were to occur, staff will advise the City Council at the earliest indication of such event(s) and seek the City Council approval to revise the project budget. Given current information, PWP does not anticipate that more than a \$5 million upward adjustment in the project budget would be needed should significant unforeseen changes in the scope of work or equipment occur. If any change is required in the project budget, adjustments will be made in the Power Fund Capital Improvement Plan to offset any additional costs. Preliminarily, the staff has identified existing generation and distribution capital improvement funds such as renewals, replacements and improvements related to GT-1, GT-3, GT-4 and B-3; power distribution capacity and reliability; and 4 kV distribution system conversion whose implementation schedule could be postponed or work scope reduced to provide for the additional funding for the GT-5 Repowering Project, if needed. Each of these projects will be analyzed for the potential impacts before recommending additional funding for the GT-5 Repowering Project.

Project Labor Agreement

On April 8, 2013, the City Council authorized the City Manager to enter into negotiations with the State and Local Building and Construction Trade Councils for a PLA. Upon completion of successful negotiations, the successful bidder for the BOP design and construction will be required to enter into a PLA with the State and Local Building and Construction Trade Councils as a condition of contract award. A PLA was considered for this project to promote local hiring and to ensure that construction proceeds continuously without interruptions due to labor issues, and in a safe and efficient manner with due consideration for protection of labor standards, wages, and working conditions. Should the project be delayed, there would be a significant storage and maintenance cost for approximately 110 truckloads of parts and equipment that make up the PIE. The draft PLA agreement is attached to the BOP Design and Construction Specifications.

The key feature of the PLA is the promotion of local hiring. The PLA is designed to be an operational extension of the "Pasadena First - Buy Local" program. The objective of the program includes achieving a minimum percentage of the project's certified payroll through the hiring of Pasadena residents, the training of Pasadena residents in construction and technical skills, inclusion and fostering the growth of local partners, and supporting the local economy through Pasadena business participation. Under the draft PLA agreement, the Contractor is required to hire Pasadena residents to meet 25% of total hires, measured as a percentage of certified payroll expenses. The estimated costs for 25% of payroll expenses for the project are approximately \$3,000,000. The unions are required to refer Pasadena residents for work requests before any other union members not residing in Pasadena, until the 25% hiring goal has been met. In addition, the PLA will require the contractor and unions to facilitate, encourage and assist Pasadena residents to join and progress in apprenticeship programs.

The City staff is actively coordinating local hiring and local business participation efforts. As of March 14, 2014, Staff had accomplished the following efforts in the local business and resident participation program:

- Held opportunity fairs on January 8 and 22, 2014 that were attended by all four bidders. These opportunity fairs allowed the bidders to meet local Pasadena businesses and solicit their participation on the project prior to submitting bids on April 8, 2014.
- Held the first of a series of meetings with Advisory Group for Local Participation that recommend strategies the City can use to maximize local participation of Pasadena residents and businesses for employment and procurement opportunities.
- Identified the potential top trades to work on the project. Potential top trades include: laborers, iron workers, electricians, carpenters, cement masons, and boilermakers.

- Coordinated and scheduled an Opportunity Fair for Pasadena residents through the Los Angeles Urban League, Local 300, Local 433, Local 461, Local 11, and local 409.
- Started the analysis to assess the overall “readiness” of the database of Pasadena residents. Technical assistance is being coordinated with Technical Assistance Providers (i.e., Foothill WIB, Los Angeles Urban League, and Flintridge Foundation) for Pasadena residents not part of a trade to prepare them to compete for future opportunities on the project.
- Started coordination and demonstration of the web-based tracking and reporting system for the project.

RISK due to pending lawsuit:

Last year, the California Clean Energy Committee filed a lawsuit citing deficiencies in the City’s EIR process for approving this Glenarm Repowering Project. In December, 2013, the Los Angeles Superior Court ruled in favor of the City and denied the petition for writ of mandate regarding the EIR for the Glenarm Repowering Project. The petitioner filed an appeal and requested a Stay Order for the construction of the project. The City filed a Declaration against the Stay Order. On April 30, 2014, the judge denied the petition for the Stay Order. The briefing on the merits will be complete by late May, and the hearing and judgment are anticipated in the later part of this year. Accordingly, at this time and pending a court decision there is nothing about the litigation that prohibits PWP from continuing to move forward with the GT-5 Repowering project. After evaluating the possible outcomes of the lawsuit, the staff recommends moving forward with this project as per the current schedule.

COUNCIL POLICY CONSIDERATION:

This authorization supports the City Councils strategic goals to improve, maintain, and enhance public facilities and infrastructure, to increase conservation and sustainability, and maintain fiscal responsibility and stability. This authorization also supports PWP’s energy efficiency and renewable portfolio standard goals, as well as the major strategic planning targets identified in the Energy IRP.

ENVIRONMENTAL ANALYSIS:

On April 8, 2013, the City Council certified the Final EIR for the Glenarm Repowering Project, made environmental findings, adopted a Mitigation Monitoring and Reporting Program and a Statement of Overriding Considerations, and granted the land use approvals for the Repowering Project. The actions proposed herein are a subsequent discretionary step required to implement the Project studied in the EIR. Pursuant to State CEQA Guidelines Section 15162, there are no changed circumstances or new information which would trigger further additional environmental review.

FISCAL IMPACT:

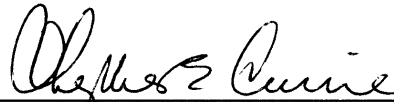
The recommended action will cost \$55,661,973 for the BOP Design and Construction as shown in Table below. It is anticipated that \$34,252,116 will be expended during fiscal year 2015, and that the remaining costs will be expended during fiscal year 2016.

Expenditures	FY 2015	FY 2016	Total Expenditures
Base Contract Amount	\$34,252,116	\$21,409,857	\$55,661,973
Contingency	\$0	\$0	\$0
Total Fiscal Impact	\$34,252,116	\$21,409,857	\$55,661,973

Funding for this action will be provided by the proceeds of the Series 2013A Revenue Bonds and Power Fund capital reserves. The Series 2013A revenue bonds were issued in December 2013 to finance a portion of the repowering project. Additional funding will be provided by a short term line of credit to provide interim financing until construction is completed. Upon completion of the project, the financing plan calls for the issuance of additional revenue bonds to replace the line of credit.

There is no anticipated impact to other operational programs or capital projects as a result of this action.


Respectfully submitted,



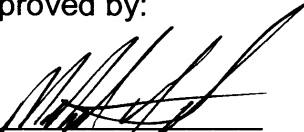
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