

# Agenda Report

February 11, 2002

**To:** City Council  
Through Municipal Services Committee

**From:** City Manager

**Subject:** Authorization to enter into contract with CH2MHill for owners engineering services to support the local repowering project.

**RECOMMENDATION:**

It is recommended that the City Council:

- 1) Authorize the City Manager to enter into a contract with CH2MHill to perform owner's engineering and consulting services associated with the purchase and installation of new Gas Turbines and related equipment at the Glenarm power plant site for an amount not to exceed \$640,000. Competitive bidding is not required pursuant to City Charter Section 1002(F), Contracts for professional or unique services;
- 2) Grant this contract an exemption from the competitive selection process of the Affirmative Action in Contracting Ordinance, pursuant to P.M.C. Section 4.09.060, contracts for which the City's best interests are served; and,
- 3) Appropriate an additional \$640,000 to the Light and Power Fund Capital Improvement Project (CIP) #3166 budget project entitled "Installation of GT 3 and GT 4" to fund expenses for this contract.

**BACKGROUND:**

***Project History and Urgency***

The City Council unanimously adopted the Pasadena Water and Power (PWP) Power System Strategic Resource Plan (Plan) on November 19, 2001. The Plan was developed in response to recent regional power shortages, energy price volatility, and stricter emissions control requirements recently adopted by the

South Coast Air Quality Management District (SCAQMD). It serves as a guide for developing PWP's portfolio of power supply and transmission resources (Portfolio) to meet PWP's goals of reliable service, stable rates, competitive energy pricing, and environmental stewardship.

A key element of the Plan is the replacement of Broadway 1 and Broadway 2 (B1 and B2) with two new 45MW combustion turbines (CT) by summer 2003. These new units, which will be located on the Glenarm property and designated as Gas Turbine Unit 3 and Unit 4 (GT3 and GT4), are essential and time critical. B1 and B2 provide needed capacity to reliably meet PWP's peak loads and an important hedge against power market price spikes. With their higher efficiency, superior operational flexibility, and 98% reduction in NOx emission rates, GT3 and GT4 will be far more effective in the role currently played by B1 and B2.

By summer 2003, it is possible that energy supplies may be tight and market prices high, thus it is prudent for economic and reliability purposes to schedule the new units commercial operation date for June 2003. Although the current outlook for near term supply is good and market prices have stabilized at reasonable rates, the long-term outlook is very uncertain. Currently, federally mandated regulation is ensuring maximum supply availability and imposing reasonable price caps; however, these measures are expected to expire after summer 2002. Many of the proposed new generation projects have been delayed or cancelled, and it is uncertain whether last year's reduced demand trend will continue under normal or higher temperature patterns.

More importantly, the existing units B1 and B2 will lose their operating permits on January 1, 2003 under strict new emission control requirements imposed by the SCAQMD. This creates an urgent need to get the new units on line in order to meet PWP's peak summer demands in 2003. In short, the new gas turbine units GT3 and GT4 must be on line in 16 months.

### ***Project Implementation Approach***

After evaluating several potential approaches, PWP proposes to purchase engineering services, major long-lead equipment and pre-packaged auxiliaries, and all other equipment needed to complete the new GT project from a single turnkey vendor. Combining engineering design and equipment procurement responsibility under a single "Engineer/Procure" contract will provide PWP with the most comprehensive performance and schedule warranty possible while compressing the schedule as necessary to meet the commercial operation deadline of June 2003. Furthermore, by utilizing pre-packaged auxiliary equipment that is field proven will reduce design and construction time as well as

overall costs to PWP.

***Owner's Engineering Services:***

In order to protect PWP's interests and ensure project success, PWP needs an Owner's Engineer (OE) to supplement PWP staff resources and provide technical expertise. The OE will assist PWP in managing the Project and the Engineer/Procure contract as described in the Scope of Work below. The OE will be an important resource to PWP in managing the Project, but will not be responsible for the Project's design, construction, or performance.

PWP has estimated that OE services will cost approximately \$40,000 per month for up to 18 months, totaling about \$640,000. This assumes the equivalent of approximately 2 FTE will be working full time on these tasks, plus expenses.

Selection Process

Since OE services are needed immediately, PWP conducted interviews with vendors currently under contract with the City to provide services related to this project. These vendors, which included RWBeck, Parsons, and CH2Mhill, have been involved in the Project planning, permitting and preliminary engineering feasibility studies. Each is well qualified to provide the OE services.

Based on an evaluation of each vendor's related experience, team qualifications, knowledge of turnkey project contracting, and feedback from references, CH2Mhill was selected as the best potential vendor for the OE services PWP requires.

Work Scope and Management

The scope of work will include various tasks related to project management and engineering, including:

- Preliminary engineering and electrical integration design
- Independent schedule and budget estimates for initial design and changes
- Develop demolition specifications and assist in bid review
- Assist in PWP's review and confirmation of the Engineer/Procure contractor's efforts:
  - Perform layout, detailed design, performance, and constructibility reviews
  - Perform equipment factory inspections
  - Verify detailed design and major milestone progress
  - Verify permitting compliance

- Assistance with construction management
  - Specification development and bid review
  - Verify construction progress
- Validate progress payments
- Coordinate start up

Because the need for these services will evolve and become more clearly defined over the life of the project, PWP will manage the scope of work performed by the OE on a task basis. Each task will include a list of deliverables and related cost and schedule for each deliverable. The OE will not be authorized to proceed with a task unless it is signed and approved by PWP.

***Additional Services Contract Needs***


PWP anticipates that it will return to Council in the coming months to request approval of contracts with other vendors for additional services, including:

- Financial consulting and/or Independent Engineers report
- Permit preparation
- Electrical integration engineering
- Demolition and site preparation

**FISCAL IMPACT**

An estimated total of \$640,000 in additional expenses will be incurred in the Light and Power Fund capital budget over the next 16-18 months as a result of this recommendation. Funds are available in the unappropriated Light and Power Fund fund balance for these expenditures. These funds will be recovered through a debt financing planned for June 2002.

Prepared by:

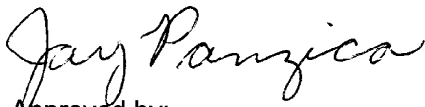
  
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Respectfully submitted,

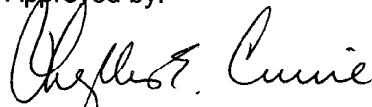
  
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