

Los Angeles



Department of Water & Power

ERIC GARCETTI
Mayor

Commission
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WILLIAM W. FUNDERBURK JR., *Vice President*
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MICHAEL F. FLEMING
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BARBARA E. MOSCHOS, *Secretary*

RONALD O. NICHOLS
General Manager

October 21, 2013

The Honorable City Council
City of Los Angeles
Room 395, City Hall
Los Angeles, California 90012

Honorable Members:

Subject: Haiwee Power Plant Penstock Replacement Project Requesting the
Los Angeles City Council to Establish Design-Build Criteria

Pursuant to Charter Section 371(b) and 674, enclosed for approval by your Honorable Body is Resolution No. 014 078, adopted by the Board of Water and Power Commissioners on October 16, 2013, approved as to form and legality by the City Attorney, recommending to the Los Angeles City Council adoption by Ordinance of the proposed Design-build criteria to be used in the selection of a contractor for the proposed Haiwee Power Plant Penstock Replacement Project. As directed by the Board, transmitted to you are supporting documents.

If there are any questions regarding this item, please contact Ms. Winifred Yancy, Manager of Intergovernmental Affairs and Community Relations, at (213) 367-0025.

Sincerely,

Barbara E. Moschos
Board Secretary

BEM:sar

Enclosures: LADWP Resolution
Board Letter
CAO Report
(Ordinance transmitted under separate cover)

Los Angeles Aqueduct Centennial Celebrating 100 Years of Water 1913-2013

111 N. Hope Street, Los Angeles, California 90012-2607 Mailing address: Box 51111, Los Angeles, CA 90051-5700
Telephone: (213) 367-4211 www.LADWP.com

c/enc: Mayor Eric Garcetti
Councilmember Felipe Fuentes, Chair, Energy and the Environment Committee
Gerry F. Miller, Chief Legislative Analyst
Miguel A. Santana, City Administrative Officer
Rafael Prieto, Legislative Analyst, CLA
William R. Koenig, Chief Administrative Analyst
Winifred Yancy

WHEREAS, the Los Angeles Department of Water and Power (LADWP) has conducted studies which have concluded that the Haiwee Power Plant Penstock, which was commissioned in 1927, has exceeded its useful life and has no remaining margin of safety; and

WHEREAS, leaks requiring repair occur along the penstock's 10,000-foot length every few months, and replacement of the entire penstock is necessary in order to maintain safe and reliable operation; and

WHEREAS, LADWP intends to oversee the acquisition, design, engineering, procurement, fabrication, construction, and all associated financing costs of the Haiwee Power Plant Penstock Replacement Project; and

WHEREAS, the primary goal of this project is to improve the reliability and availability of the Haiwee Power Plant which serves the needs of both Power System and Water System by providing generation of renewable energy and water supply to the City of Los Angeles; and

WHEREAS, LADWP desires to advertise a Request for Proposal utilizing the competitive sealed proposal method that permits negotiations after proposals have been submitted to allow clarifications and changes to the proposal; and

WHEREAS, Section 371(b) of the Charter of the City of Los Angeles provides that as an alternative to an award pursuant to open and competitive bidding, a contract may be let pursuant to a competitive sealed proposal method, in accordance with criteria adopted by a two-thirds vote of the Council. The competitive sealed proposal method may permit negotiations in accordance with criteria as established by the Ordinance authorizing the use of such alternative method; and

WHEREAS, an award shall be made to the bidder whose final proposal provides the lowest ultimate cost to LADWP, as determined by LADWP.

NOW, THEREFORE, BE IT RESOLVED that the Board of Water and Power Commissioners approves and recommends to the Los Angeles City Council adoption by Ordinance of the proposed Design-Build criteria to be used in the selection of a contractor for the proposed Haiwee Power Plant Penstock Replacement Project pursuant to Sections 371(b) and 674 of the Charter.

BE IT FURTHER RESOLVED that the Board of Water and Power Commissioners finds that adherence to the rule that the award be made to the lowest responsive and responsible bidder is not practicable or advantageous and that the competitive sealed bid proposal method is in the best interests of the City due to the complexity of the Project. A qualitative assessment of the proposals is equally important as the quantitative assessment and will yield a more qualified contractor and a lower ultimate cost to the City.

BE IT FURTHER RESOLVED that pursuant to Charter Section 1022, the services advertised for in this Request for Proposal are for expert services which require knowledge and skills that are not available within LADWP and can be performed more economically or feasibly by independent contractors than by City employees.

I **HEREBY CERTIFY** that the foregoing is a full, true, and correct copy of a resolution adopted by the Board of Water and Power Commissioners of the City of Los Angeles at its meeting held

OCT 16 2013

Barbara E. Moschovis


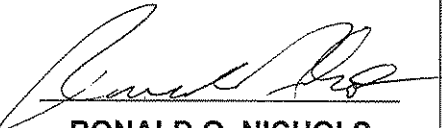
Secretary

APPROVED AS TO FORM AND LEGALITY
~~SARAH E. TRIFANICH, CITY ATTORNEY~~
MICHAEL N. PEVEL

JUL 10 2013

BY *Eric Rosenblatt*
ERIC ROSENBLATT
DEPUTY CITY ATTORNEY

LOS ANGELES DEPARTMENT OF WATER AND POWER (LADWP) BOARD APPROVAL LETTER

TO: BOARD OF WATER AND POWER COMMISSIONERS		DATE: October 3, 2013
  ARAM BENYAMIN Senior Assistant General Manager Power System		SUBJECT: Haiwee Power Plant Penstock Replacement Project Requesting the Los Angeles City Council to Establish Design-Build Criteria Pursuant to Section 371(b) of the City Charter
RONALD O. NICHOLS General Manager		FOR COMMISSION OFFICE USE: RESOLUTION NO. _____
CITY COUNCIL APPROVAL REQUIRED: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	IF YES, BY WHICH CITY CHARTER SECTION: 371(b), and 674	

PURPOSE

Transmitted for approval by your Honorable Board is a Resolution, approved as to form and legality by the City Attorney, requesting the transmittal of an Ordinance the Los Angeles City Council to approve the advertisement of a Request for Proposal (RFP) for the design and construction of the Haiwee Power Plant Penstock Replacement Project (Project). The Project will replace the existing steel penstock with fiber reinforced polymer composite material.

The Ordinance will authorize LADWP to let a design-build contract pursuant to a competitive sealed proposal method permitting negotiations relating to the engineering, procurement, and construction of the Project based on the criteria established by the Ordinance. The Ordinance will authorize a term not to exceed three years for the contract.

Pursuant to a competitive sealed proposal method, design-build criteria adopted by the Ordinance will permit an award to a bidder specialized in the design, engineering, procurement, construction, test and commissioning of fiber reinforced polymer composite systems. The sealed proposal method, per Charter §371(b), permits negotiations after proposals have been opened to allow clarifications and changes to the proposal. Per Charter §371(a) and Los Angeles Administrative Code §10.47, the Local Business Preference Program will apply.

The approach will be to advertise one RFP to obtain an agreement with one qualified and experienced contractor.

COST AND DURATION

The total estimated cost for the project is approximately \$21 Million. The duration of the proposed contract will not exceed three years.

BACKGROUND

The Haiwee Power Plant is located in Owens Valley, approximately 30 miles south of Lone Pine. The penstock serves the needs of both Power System and Water System by providing hydro power to Haiwee Power Plant for generation of renewable energy and water supply to the City of Los Angeles as part of Los Angeles Aqueduct 1. A large portion of the penstock from the base of the Haiwee reservoir dam to the powerhouse is in disrepair due to collapse and corrosion. In 2008, a comprehensive third-party study was performed, which reviewed multiple previous studies, inspection reports, operation and maintenance records. It was determined that the penstock has exceeded its service life and has no remaining safety margin. The study's conclusion was that complete replacement of the penstock was needed. In 2010, a net present value study was conducted, comparing the use of steel versus composite pipe for penstock replacement. The study concluded that composite material was the more feasible option.

Approximately 10,000 feet of the Haiwee penstock will be replaced with composite pipe in the 84 inches to 102 inches outside diameter range some portions of the penstock will be repaired and refurbished rather than replaced. The project will include the installation of at least two new high performance butterfly valves and a state of the art, bi-directional, ultrasonic flow measurement system which will be housed in a ventilated, non-confined space vault. Installation will also include a vacuum/air release system.

Charter Section 1022

The Project will consist of a design-build contract. At this time, LADWP does not have the in-house resources or expertise to perform the requirements of the contract.

Los Angeles City Council Approval

Per Charter §371(b), and 674, Los Angeles City Council approval is required. Accordingly, attached is the signed City Administrative Officer report dated September 13, 2013.

METHOD OF SELECTION

Competitive Cooperative Purchase Sole Source Single Source

ENVIRONMENTAL DETERMINATION

This proposed project is subject to the California Environmental Quality Act (CEQA), Public Resources Code §2100, et seq. As such, it is important to note that the LADWP Board of Commissioners (Board) has made no final determinations regarding the proposed Project. The Board retains its full discretion to make a determination regarding the proposed Project, including the selection of no project at all. The Board will review the CEQA analysis and make a determination pursuant to law. Bidders recognize and assume this risk. No contract shall be awarded prior to the completion of CEQA compliance.

RECOMMENDATION

It is requested that your Honorable Board adopt the attached Resolution recommending the Los Angeles City Council's approval of an Ordinance to allow the use of competitive-sealed bid proposal method and to set forth the selection criteria therefor.

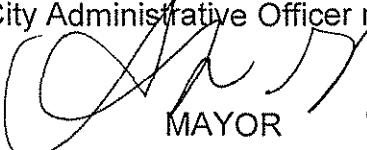
EAC:sk

Attachments

e-c/att: Ronald O. Nichols
Richard M. Brown
Aram Benyamin
James B. McDaniel
Philip Leiber
Gary Wong
Marvin D. Moon
Edward A. Congdon

PSED

POWER SYSTEM
SEP 17 2013
EXECUTIVE OFFICE

TRANSMITTAL		0150-10050-0000
TO Ronald O. Nichols, General Manager Department of Water and Power	DATE SEP 13 2013	COUNCIL FILE NO.
FROM The Mayor	COUNCIL DISTRICT NA	
<p>ORDINANCE FOR THE HAIWEE POWER PLANT PENSTOCK REPLACEMENT PROJECT AUTHORIZING DESIGN-BUILD CRITERIA FOR A CONTRACT TO BE AWARDED USING A COMPETITIVE SEALED BID PROPOSAL METHOD.</p> <p>Approved and transmitted for further processing including Council consideration. See the City Administrative Officer report attached.</p> <p style="text-align: center;"> MAYOR (Ana Guerrero)</p>		
MAS:RPR:10140051t		

REPORT FROM

OFFICE OF THE CITY ADMINISTRATIVE OFFICER

Date: September 10, 2013

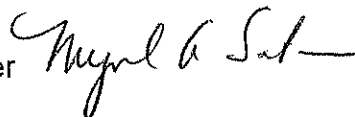
CAO File No.: 0150-10050-0000

Council File No.:

Council District: NA

To: The Mayor

From: Miguel A. Santana, City Administrative Officer



Reference: Communication from the Department of Water and Power dated July 16, 2013; referred by the Mayor for report on July 26, 2013

Subject: **ORDINANCE FOR THE HAIWEE POWER PLANT PENSTOCK REPLACEMENT PROJECT AUTHORIZING DESIGN-BUILD CRITERIA FOR A CONTRACT TO BE AWARDED USING A COMPETITIVE SEALED BID PROPOSAL METHOD.**

SUMMARY

The Department of Water and Power (DWP; Department) requests approval of a proposed resolution, which authorizes by ordinance, the criteria for a Design-Build contract for the Haiwee Power Plant Penstock Replacement Project (Project) that the DWP intends to award using a competitive sealed bid proposal method. The proposed Project serves both the Power System and Water System by providing hydro power to Haiwee Power Plant for generation of renewable energy and water supply to the Los Angeles Aqueduct 1.

Included in the Project is the installation of approximately 10,000 feet of composite material penstock to replace the current steel penstock; although certain portions of the penstock will be refurbished rather than replaced. A penstock is a pressurized pipe or intake structure, which in this project, controls water flow to a hydroelectric generating system. Also included in the Project is the installation of at least two high performance valves, an ultrasonic flow measurement system, and a vacuum/air release system.

Approval of the proposed resolution, and accompanying ordinance, will specifically authorize the Department to (1) establish criteria for DWP to award one Design-Build contract for the Project; (2) permit negotiations to allow clarifications and changes to the proposals, pursuant to a competitive sealed proposal method; and (3) award one Design-Build contract for design, engineering, procurement, and construction, for a term not to exceed three years, to a bidder with the lowest ultimate cost, as determined by DWP. The Department asserts that a competitive sealed proposal with negotiations is necessary due to the complexity and technical details of the Project that make it impractical to write detailed specifications, advertise, open bids publicly, and award a contract without any clarifications, changes, or negotiations. Pursuant to Charter Section 371(b), a vote of two-thirds the City Council approving the contract selection criteria is required to award a contract using a competitive sealed proposal method. The City Attorney has approved the proposed resolution and ordinance as to form and legality.

DESIGN-BUILD CONTRACT

The Design-Build criteria proposed for approval will permit an award to a bidder specialized in the design, engineering, procurement, and construction of large diameter fiber reinforced polymer composite material piping systems; qualified in providing technical services to support construction and commissioning of the penstock; and demonstrated experience in financial, labor, material procurement, and equipment resources available for the Project.

The Project will require work that the Department does not have the expertise or manufacturing capabilities to perform these tasks. DWP intends to award a single agreement for the replacement of historic steel penstock pipe and installation of new composite material penstock pipe; installation of at least two high performance valves and an ultrasonic measurement system; and the installation of a vacuum/air release system to prevent potential damage caused by a sudden vacuum event. According to the Department, approximately 17 DWP staff members will be involved at various phases of the Project to perform project management, civil engineering, electrical engineering, geotechnical engineering, and oversight activities including all associated financing costs.

The Project duration is anticipated to be three years with an estimated cost of \$21 million funded with base rates. DWP states that the cost impact for the average residential customer is approximately \$0.03 per month. The total estimated cost includes a 10 percent contingency for costs that result from unforeseen conditions or uncertainties such as the extent of repair and refurbishment necessary for sections of penstock encased in concrete or located underground. An estimate of costs is provided in the table below:

Haiwee Power Plant Penstock Replacement Project Cost Estimate (CE30)	
Category	Total Cost (000's)
Mechanical Engineering (Composite pipes, fittings, and valves)	\$7,160
Repair and Refurbish Penstock	\$750
Civil Engineering (Excavate, trench, and backfill)	\$5,690
Structural Engineering (Valve vaults)	\$5,220
Electrical Engineering	\$190
Instruments, Controls, and Training	\$80
Contingency (10 percent)	\$1,910
TOTAL	\$21,000

The Department states that a competitive sealed proposal with negotiations, in accordance with Charter Section 371(b), is necessary to allow DWP to obtain the best value for the Project. Furthermore, the technical details and complexity of the Project make it not practical or feasible to write detailed specifications, advertise, open bids publicly, and award these contracts without any clarifications, changes, or negotiations for this highly complex project. Consistent with Charter Section 371(b) competitive bidding requirements, Design-Build or other appropriate project delivery method may be used when justified by the type of project and approved by the contracting authority. A benefit of the Design-Build contracting method (compared to the traditional Design-Bid-Build method) is the ability to overlap certain design and construction tasks and processes which offer a potentially reduced overall project duration.

BACKGROUND

The Haiwee Power Plant, which is located in Owens Valley, consists of two 2.5 megawatt (MW) hydroelectric generating units originally constructed and put in service in 1926. DWP states that the original penstocks bringing water to the generating units were mostly riveted steel pipe. In approximately 1950, the original penstock was replaced with welded steel plate pipe.

In 1984, approximately 1,690 feet of the Haiwee penstock collapsed due to an unexpected vacuum event. Partial restoration of the collapsed penstock was achieved by pressurizing the collapsed area and inflating the steel pipe; however, the restored section is highly distorted.

In 2008, a third-party review was performed on the condition of the penstock that determined the penstock is in disrepair due to the 1984 collapse and corrosion. Additionally, the penstock has exceeded its service life and has no remaining safety margin. The review concluded that a total replacement of the penstock is necessary and advised utilizing fiber reinforced polymer composite (composite material) for the penstock instead of the current steel pipe.

In 2010, the Power System recommended complete replacement of the penstock using fiber reinforced polymer composite material. Technical concerns regarding the composite material were reviewed by the Water System and a determination was made that the composite material meets or exceeds performance parameters when compared to steel. Furthermore, a net present value study was completed by a third-party consultant, comparing steel to the composite material, concluded that the composite material was a more feasible option due primarily to lower maintenance costs. The absence of corrosion in composite material reduces the anticipated cost of maintaining the penstock. After considering both the technical aspects and the cost, both the Water System and Power System are in agreement to utilize a composite material for the penstock replacement.

Composite material is not currently utilized by the DWP for penstock or aqueduct applications; however, composite material pipe is utilized at other Power System projects including the Haynes Generating Station, Scattergood Generating Station, and Valley Generating Station.

The above-mentioned aspects of the proposed resolution, ordinance, and this report, are based upon revised information received from the Department subsequent to the initial request submittal.

CONTRACTUAL COMPLIANCE

The City Attorney has approved the proposed resolution and ordinance as to form and legality. According to the Department, information regarding contractual compliance to the City policies and procedures will be available when the proposals are received and after the ordinance related to City Charter Section 371(b) is approved by the City Council.

RECOMMENDATION

That the Mayor:

1. Approve the proposed resolution, which authorizes by ordinance, the criteria for a Design-Build contract for the Haiwee Power Plant Penstock Replacement Project that the DWP intends to award using a competitive sealed bid proposal method, pursuant to Charter Section 371(b); and,
2. Return the proposed resolution to the Department for further processing, including Council consideration and approval by a two thirds vote pursuant to Charter Section 371(b).

FISCAL IMPACT STATEMENT

Approval of the proposed resolution and ordinance will not have a fiscal impact; however, the ensuing contract will result in a total expenditure estimated to be approximately \$21 million which is included in the Multi-Year Expenditure Plan of the DWP Power System Capital Budget for fiscal years 2013-14 through 2016-17. Approval of the proposed resolution and ordinance will have no impact on the City's General Fund. The proposed request complies with the Department's adopted Financial Policies.

TIME LIMIT FOR COUNCIL ACTION

The City Attorney has advised that there is no time limitation on this action due to the ordinance approval requirement.

MAS:RPR:10140051