



Los Angeles
Department of
Water & Power

RESOLUTION NO. 023 036

BOARD LETTER APPROVAL

A blue ink signature of Brian J. Wilbur, consisting of a stylized "B" followed by a long, sweeping horizontal line.

BRIAN J. WILBUR
Interim Senior Assistant General Manager
Power System – Engineering, Planning, and
Technical Services

A blue ink signature of Martin L. Adams, featuring a complex, cursive script with multiple loops and a long horizontal line extending to the right.

MARTIN L. ADAMS
General Manager and Chief Engineer

DATE: August 3, 2022

SUBJECT: Los Angeles Department of Water and Power, Haynes Generating Station Unit 8 Recycled Water Cooling System Retrofit Project, Resolution for an Ordinance Requesting the Los Angeles City Council to Establish Engineer-Procure-Construct Criteria Pursuant to §371(b) of the City Charter

SUMMARY

The proposed Ordinance will authorize the Los Angeles Department of Water and Power (LADWP) to obtain an Engineer-Procure-Construct (EPC) contract for the Haynes Generating Station (HnGS) Unit 8 Recycled Water Cooling System Retrofit Project (Project). This will permit negotiations pertaining to the engineering, procurement, and construction based on criteria established by the Ordinance. The Ordinance will authorize a term not to exceed five years.

Approval of this Ordinance does not authorize any retrofit of Units at HnGS.

Pursuant to a competitive sealed proposal method, EPC criteria adopted by the Ordinance will permit an award to a bidder specialized in the construction and retrofitting of power generation cooling systems. The competitive sealed proposal method, per Los Angeles City Charter (Charter) §371(b), permits negotiations after proposals have been opened to allow clarifications and changes. Per Los Angeles Administrative Code Section 10.47, the Local Business Preference Program will apply.

The approach will be to advertise one Request for Proposal (RFP) with one Agreement which will be awarded in whole at LADWP's discretion.

The contract will be for the design, procurement, and construction of a recycled water cooling system consisting of a cooling tower and associated infrastructure, integration of new cooling system with existing equipment, addition of station service voltage transformer, demolition of the Once-Through-Cooling (OTC) piping and associated equipment, modernization of the existing storm water and waste water systems, and hazardous material abatement and disposal as required.

Los Angeles City Council (City Council) approval is required according to Charter Sections 371(b) and 674.

RECOMMENDATION

It is requested that the Board of Water and Power Commissioners (Board) adopt the attached Resolution recommending City Council approval of an Ordinance authorizing the use of the competitive sealed bid proposal method to let a contract not to exceed five years in length in accordance with Charter Sections 371(b) and 674.

ALTERNATIVES CONSIDERED

One alternative would be to handle the design and construction in-house, while procuring the parts and equipment necessary through an Invitation for Bid. A second alternative would be to handle the design in-house while procuring construction services through an RFP. LADWP has never done a large-scale recycled water cooling system retrofit and does not have employees with the relevant design or construction experience and expertise required. Therefore, it is not feasible to effectively complete the Project utilizing the mentioned alternatives.

This Project requires professional personnel that have specific experience in large-scale generating equipment retrofits, a firm understanding of OTC infrastructure, and in designing a recycled water cooling system within specific operating parameters. The required subject matter experts will need to be able to recognize the long-term operational impacts of every aspect of the cooling system retrofit design in order to minimize risk to LADWP personnel, property, and generating reliability.

The proposed EPC contract through an RFP allows LADWP the opportunity to choose from a pool of qualified and experienced firms, specializing in the construction and retrofitting of power generation cooling systems.

FINANCIAL INFORMATION

The total estimated cost for the proposed contract is approximately \$130 million. The duration will not exceed five years.

BACKGROUND

HnGS Units 1 and 2 were placed into operation in 1962 and 1963, respectively; Units 3 and 4 were placed into operation in 1964 and 1965, respectively; and Units 5 and 6 were placed into operation in 1966 and 1967, respectively. Units 1-6 were constructed as conventional steam-generating boilers and were designed to utilize an OTC system to condense turbine exhaust steam. Due to their age, Units 3 and 4 were decommissioned and replaced by combined-cycle Units 8-10 in 2005, while Units 5 and 6 were decommissioned and replaced by aeroderivative Units 11-16 in 2013. Unit 8 currently utilizes the OTC infrastructure previously associated with Units 3 and 4.

The proposed Project is necessary to continue operation of Unit 8 while complying with the State Water Resources Control Board's (SWRCB) Water Quality Control Policy on the Use of Coastal and Estuarine Waters for Power Plant Cooling (OTC Policy), governing the use of OTC. As negotiated with SWRCB, LADWP has established the goal of eliminating the use of OTC at HnGS by December 31, 2029. The Project will facilitate compliance with the OTC Policy at HnGS by providing Unit 8 with a means of cooling and condensing turbine exhaust steam independent of ocean water and existing OTC infrastructure.

The Los Angeles 100% Renewable Energy (LA100) Study completed by the United States Department of Energy's National Renewable Energy Laboratory in partnership with LADWP on March 24, 2021, determined several investment pathways to achieve 100% renewable electricity by 2045, or sooner. On April 19, 2021, City of Los Angeles' Mayor Eric Garcetti declared in his State of the City address that by 2030, LADWP will provide an energy mix that is 80% renewable and 97% carbon free — a full six years ahead of the previous LA Green New Deal commitments (80% renewable by 2036), and commit to 100% carbon-free energy by 2035, ten years ahead of schedule. LADWP has identified the Haynes Unit 8 Recycled Water Cooling System Retrofit Project as crucial to achieving its clean energy goals, while ensuring reliability, resiliency, and maintaining cost affordability and equity.

The LA100 Study identified the need to maintain grid resiliency and transmission reliability at 100% renewable energy through the deployment of additional firm capacity resources utilizing renewably derived fuels, such as hydrogen, to meet future peak demands, to address transmission outages contingencies, and to support the accelerated buildout of clean energy projects. Subsequent to LA100 Study completion, on September 2, 2021, the City Council adopted Motion 21-0352 that instructed LADWP to prepare a Power System Strategic Long-Term Resource Plan that achieves 100% carbon-free energy by 2035, that is both 10 years earlier than Senate Bill 100 and more restrictive on acceptable technology (no biofuels) to achieve clean energy targets. Based on the LA100 Study, a minimum amount of total in-basin hydrogen-fueled generation capacity of 2,100 megawatts (MW) by 2035 and 3,370 MW by 2045 would be required to support LADWP's future reliability and resiliency needs.

LADWP has identified this Project, in conjunction with accelerating renewables and energy storage, upgrading transmission, and deploying distributed energy resources equitably, as crucial for LADWP to achieve its clean energy goals while ensuring reliability, resiliency, maintaining affordability, and equity. Furthermore, this Project will ensure an environmentally just transition and offset reliance on Valley Generating Station as LADWP transitions towards a clean energy future.

All elements of the proposed project are subject to the final disposition of the California Environmental Quality Act (CEQA) process.

City Administrative Officer Report

In accordance with the Mayor's Executive Directive No. 4, the City Administrative Officer's (CAO) Report was approved on March 29, 2022.

ENVIRONMENTAL DETERMINATION

Determine item is exempt pursuant to CEQA Guidelines Section 15060(c)(2). In accordance with this section, an activity is not subject to CEQA if it will not result in a direct or reasonably foreseeable indirect physical change in the environment. The approval of this ordinance will authorize the use of the competitive sealed bid proposal method to let a contract, and will not result in any physical change in the environment; therefore, the proposed action is not subject to CEQA. Implementation of the Project is subject to CEQA. Further, in accordance with CEQA, a Mitigated Negative Declaration (MND) was prepared to analyze the impacts associated with the construction and operation of the Project. On February 8, 2022, the Board adopted the MND and Mitigation Monitoring and Reporting Program and approved the project.

CITY ATTORNEY

The Office of the City Attorney reviewed and approved the Resolution and the Ordinance as to form and legality.

ATTACHMENTS

- Resolution
- Draft Ordinance
- CAO Report