



Los Angeles  
Department of  
Water & Power

RESOLUTION NO. \_\_\_\_\_

BOARD LETTER APPROVAL

Handwritten signature of Michael S. Webster in blue ink.

**MICHAEL S. WEBSTER**  
Executive Director – Power System  
Engineering and Technical Services

Handwritten signature of Marcie L. Edwards in blue ink.

**MARCIE L. EDWARDS**  
General Manager

**DATE:** May 23, 2016

**SUBJECT:** Sylmar Ground Return System Replacement Project Ordinance Requesting the Los Angeles City Council to Establish an Engineer, Procure and Construct Criteria Pursuant to Section 371(b) of the City Charter

**SUMMARY**

Transmitted for approval by your Honorable Board is a Resolution, approved as to form and legality by the City Attorney, recommending to the Los Angeles City Council approval of LADWP's engineer-procure-construct criteria for two new Direct Current (DC) electrode cables, rated at a minimum of 25-kV, for the Sylmar Ground Return System Replacement Project (Project).

The DC electrode is an integral and necessary part of the Pacific DC Intertie (PDCI), a major electrical transmission link between the northwestern and southwestern United States. The existing DC electrode is essentially the original equipment that was commissioned along with the PDCI in 1970. Since that time, the PDCI has more than doubled in capacity. Also, over the years, the DC electrode (part of which extends into the Pacific Ocean) has deteriorated to the point where it has failed repeatedly and has required frequent repairs. The PDCI capacity of 3100 MW is shared among the PDCI participants which are LADWP (40 percent and managing participant), Southern California Edison (50 percent), the City of Burbank (3.846 percent), the City of Glendale (3.846 percent), and the City of Pasadena (2.308 percent), with LADWP acting as the operating agency. All participants of the Sylmar Converter Station (SCS) will be responsible for costs of the project based on their respective ownership shares.

The Ordinance will authorize LADWP to use an engineer, procure and construct 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 five years for the contract.

Furthermore, the Ordinance will permit an award to a bidder specialized in the engineering, procurement, construction, and commissioning of DC Electrode cables. The sealed proposal method, per Los Angeles City Charter (Charter) §371(b), permits negotiations after proposals have been opened, in order to allow clarifications and changes to the proposals.

Per Charter §371(a) and Los Angeles Administrative Code §10.47, the Local Business Preference Program will apply. The extended term of the contract, per Charter §373, is necessary because of the complexity of the Project, the long lead times to fabricate major components, and schedule uncertainties in the permitting process.

The approach will be to advertise one Request for Proposal, and to award a design-build contract for a term not to exceed five years, to a bidder with the lowest ultimate cost, as determined by LADWP with the approval of the Board of Water and Power Commissioners. The contract will be for engineering studies and final design verification, Direct Current cable equipment and material procurement, associated technical services, and the construction of two DC electrode lines, rated at a minimum of 25-kV. The electrode design, material and equipment specifications will be administered and managed by LADWP personnel.

City Council approval of the Ordinance is required pursuant to charter §§371(a), 371(b), 373, and 674. Accordingly, attached is the signed City Administrative Officer report, dated September 11, 2015.

### **RECOMMENDATION**

It is requested that the Board of Water and Power Commissioners adopt the attached Resolution recommending the City Council's approval of an Ordinance to allow the use of a competitive sealed bid proposal method in accordance with §371(b), to allow a contract term not to exceed five years in accordance with §373, and to grant the Board the power to let a contract/contracts for a project assisting in the transmission of electric energy, in accordance with Charter §674, for the Sylmar Ground Return System Replacement Project.

### **FINANCIAL INFORMATION**

The total estimated cost for the Agreement is approximately \$114 million. The duration of the proposed contract will not exceed five years.

### **BACKGROUND**

The Sylmar Ground Return System (SGRS) is an essential component of the Pacific Direct Current Intertie (PDCI) Transmission Line which transmits bulk power from the Pacific Northwest to Southern California, primarily from hydroelectric and wind energy facilities.

The PDCI is a direct current (DC) system of +/- 500-kV and cannot operate without a ground return system. The purpose of the ground return system is to carry current away from the PDCI during a disturbance, outage, or anomaly on the system that prevents the normal distribution of energy. Utilization of the SGRS allows for the continued operation of the PDCI during short-term system anomalies, allowing time to resolve system issues or to provide alternative generation sources, if needed.

From 1970 until now, the PDCI has had several upgrades increasing its capacity from +/-400-kV, 1,440 MW to +/-500-kV, 3100 MW. However, the ground return system has yet to be upgraded. As a result, the submarine and land cables of the ground return system are no longer optimally suited for present operation at full power, and the elements and vaults in the ocean have deteriorated significantly since their original installation.

In the meantime, the State of California has established a Renewable Portfolio Standard (RPS) policy requiring the increased production and use of renewable energy (such as wind, solar, small hydroelectric, biomass, and geothermal energy). LADWP has adopted an RPS policy that matches California's. One of the primary purposes of the Project is to assist LADWP in meeting its 2020 RPS goal which is to meet the renewable energy the PDCI mandate of 33 percent by the year 2020. Implementation of the Project would allow the PDCI to continue transmitting wind and hydro –generated energy to Southern California.

In order to maintain the reliability and flexibility of the PDCI, and to continue to deliver renewable energy to Southern California to meet California's RPS goal of 33 percent renewable energy by 2020, LADWP's Power System Reliability Program (PSRP) requires the replacement and upgrade of the SGRS.

## **ENVIRONMENTAL DETERMINATION**

In accordance with §15060 (c)(2) of the California Environmental Quality Act (CEQA) Guidelines, 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 not result in any physical change in the environment, therefore, this activity is not subject to CEQA. LADWP, as the lead agency for the Sylmar Ground Return Replacement Project, is preparing an Environmental Impact Report (EIR) to evaluate the potential environmental impacts associated with the construction and operation of the project. It is expected that the EIR will be certified by the Board of Water and Power Commissioners in August 2016, which will occur before award of the contract to begin work on the project.

## **CITY ATTORNEY**

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

## **ATTACHMENTS**

- Resolution
- Ordinance
- CAO Report