

*City of Arts & Innovation*

# Utility Services/Land Use/Energy Development Committee

**TO:** **UTILITY SERVICES/LAND USE/ENERGY DEVELOPMENT COMMITTEE** **DATE:** **AUGUST 18, 2016**

**FROM:** **PUBLIC UTILITIES DEPARTMENT** **WARDS:** **ALL**

**SUBJECT:** **APPROVE A FIFTY-YEAR ELECTRIC SERVICE CONTRACT AND AN AMENDED AND RESTATED IMPLEMENTATION AGREEMENT FOR 30 MW OF HYDROELECTRIC POWER FROM THE BOULDER CANYON PROJECT (E.G. HOOVER DAM) WITH WESTERN AREA POWER ADMINISTRATION, BUREAU OF RECLAMATION- ESTIMATED \$800,000 FIRST YEAR COST - DIRECT SUBMITTAL**

## **ISSUES:**

Recommend that the City Council approve the Electric Service Contract between United States Department of Energy Western Area Power Administration and the City of Riverside for the Boulder Canyon Project; and approve the Amended and Restated Implementation Agreement amongst the United States Department of Energy Western Area Power Administration, the Bureau of Reclamation and the City of Riverside.

## **RECOMMENDATIONS:**

That the Utility Services/Land Use/Energy Development Committee recommend that the City Council:

1. Approve the Electric Service Contract between the United States Department of Energy Western Area Power Administration and the City of Riverside to continue the electric service from the Boulder Canyon Project (Hoover Dam) from October 1, 2017, through September 30, 2067;
2. Approve the Implementation Agreement amongst the United States Department of Energy Western Area Power Administration, the Bureau of Reclamation, and the City of Riverside;
3. Authorize the City Manager or his designee, to execute any documents necessary to administer the Electric Service Contract and Implementation Agreement; and
4. Authorize the City Manager or his designee to terminate the Electric Service Contract for circumstances provided in the Agreement.

## **BOARD RECOMMENDATION:**

This report is published on August 3, 2016, for the August 18, 2016 Utility Services/Land Use/Energy Development Committee meeting.

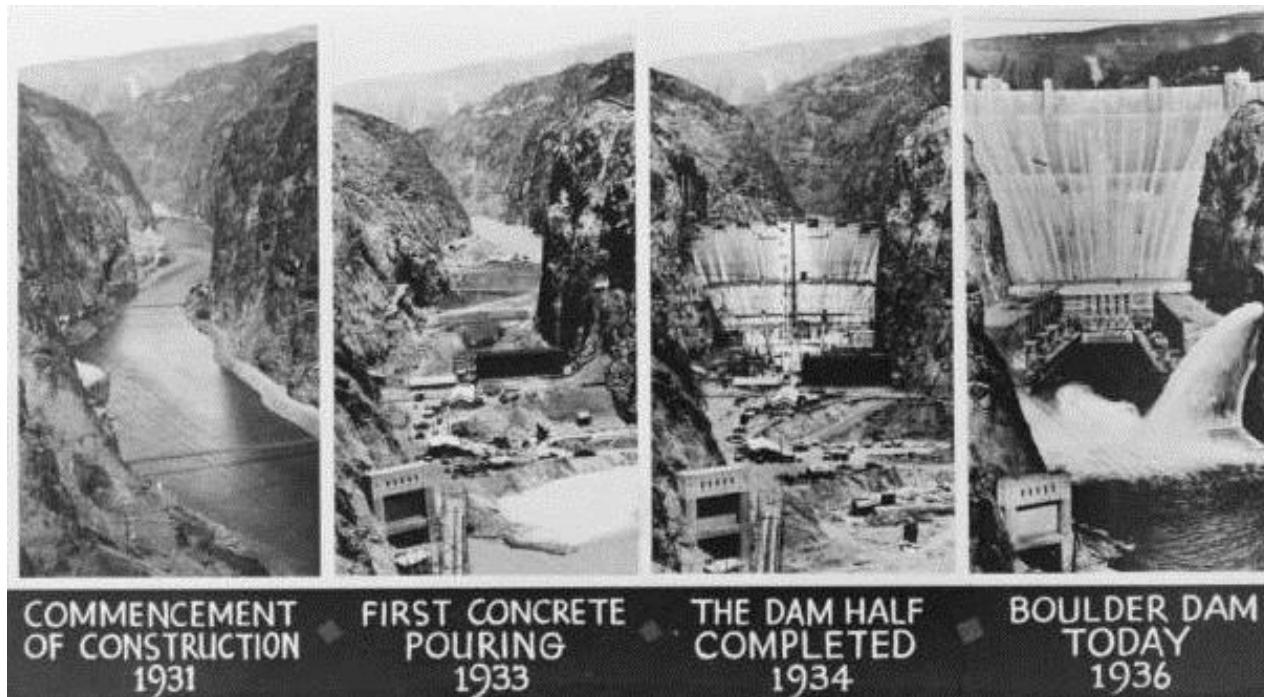
On August 8, 2016, the Riverside Public Utilities' Board will hear this item for consideration to recommend to City Council to approve a fifty-year Electric Service Contract and Amended and Restated Implementation Agreement for Boulder Canyon Project with the United States Department of Energy Western Area Power Administration, the Bureau of Reclamation, and the City of Riverside.

If the Board approves to forward this to City Council, we respectfully request the Utility Services/Land Use/Energy Development Committee consider the item at the August 18, 2016, Utility Services/Land Use/Energy Development Committee meeting.

## **BACKGROUND:**

**Boulder Canyon Project Act of 1928 (1928 Act):** In 1928, Congress passed the 1928 Act, authorizing construction of the Boulder Canyon Project (e.g. Hoover Dam and Power Plant). Construction began in 1931 and the plant became operational in 1937. Southern California Edison and the Los Angeles Department of Water and Power jointly operated the project for the 50 year term of the original Electric Service Contract (ESC) that expired in 1987. The project originally consisted of 9 contractors.

The following pictures show the plant during various stages of its original construction.



**Hoover Power Plant Act of 1984 (1984 Act):** As the termination of the ESC pursuant to the 1928 Act approached, congress passed the 1984 Act to increase the rated capacity (e.g.,

uprate/increase the output of the project), and extend the life of the plant for an additional 30 years (from 1987 through 2017). The 1984 Act stipulated that the project be operated by the Bureau of Reclamation (Reclamation) and marketed by the United States Department of Energy Western Area Power Administration (Western).

Seventeen hydroelectric generating units were uprated, resulting in an additional 503 megawatts (MW) of capacity shared among the new contractors, including the City of Riverside (Riverside). There are 15 contractors participating in the Hoover project. Riverside's entitlement was initially approximately 30 megawatts (MW).

Subsequent to the uprating, additional equipment upgrades have increased the plant's output to today's rated capacity of 2,080 MW. Riverside's current entitlement is approximately 32 MW or 1.538% of the plant's capacity.

This following picture represents eight of the hydroelectric generators at the Hoover plant after the uprating.



**Hoover Power Allocation Act of 2011 (2011 Act):** In December 2011, President Obama signed the 2011 Act, to extend the life of the power plant for an additional 50 years through September 30, 2067. Therefore, a new ESC is required to govern the contractual arrangements for operating the Hoover power project post 2017.

The 2011 Act requires that the 15 current contractors contribute 5% of their entitlement, creating a new power pool that Western can remarket to new contractors. After its 5% reduction, Riverside's entitlement under the new ESC will be approximately 30 MW. Assuming all contractors execute the ESC, the total number of contractors increases from 15 to 46.

Power produced from the Hoover project has no greenhouse gases, and power from Hoover has historically been one of Riverside's lowest cost sources of peaking power. Hoover has no negative impacts on Riverside's carbon footprint or its GHG obligations under California's Cap-and-Trade regulations.

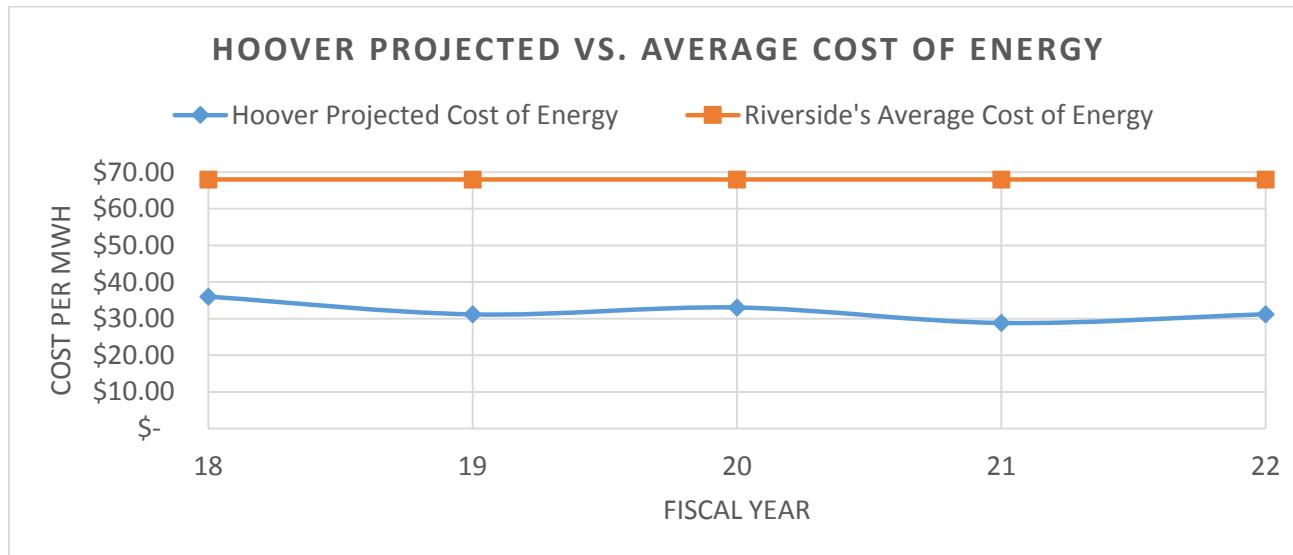
***The ESC provides an option -- but not an obligation -- to Riverside to participate over the fifty-year term, under terms offered by Western.***

**Amended and Restated Implementation Agreement (IA):** The IA is a supplemental agreement to the ESC and establishes administrative, budgetary and project oversight by creating project committees and processes for decision making for plant operations.

Negotiations of the ESC and the IA [amongst the contractors (including Riverside), Western and the Bureau] occurred over the last 12 months, with Western and Reclamation having final authority over the form and content of the contract offered. Terms under the new ESC are substantially similar to the existing ESC. The ESC is offered as-is to contractors.

- **Key Terms of the ESC and IA Agreements:** Contract effective 10/1/2017 – 9/30/2067
- Riverside's entitlement is approximately 30MW (1.461% of total project)
- Riverside entitled to all environmental attributes associated with the project
- Initial price is estimated to be \$36/MWh
- Contracts must be executed by 10/1/2016 to participate in the project
- Working Capital funded with carryover from existing contractors (including Riverside) and will be reimbursed by contractors participating in the extension (including Riverside)
- Additional terms and conditions are included in the attached ESC and IA.

The graph below displays the five-year projected cost of the project compared to Riverside's Fiscal Year 14/15 (the most recent audited costs) overall average cost of energy. Because the capital costs for construction were financed with debt that has been paid off, the costs for operations and repairs/maintenance are expected to be low.



Staff recommends that Riverside continue its participation in the project under the terms and conditions offered by Western for the fifty year term of the ESC.

### **FISCAL IMPACT:**

The annual cost of power under the ESC is estimated to be approximately \$800,000 in Fiscal Year 2017/18. Sufficient funds are available in Fiscal Year 2017/18 budget in Power Resources' Capacity Account No. 6120100-422915 and Energy Account No. 6120100-422914. The remaining contract costs will be included in future budgets.

Prepared by: Girish Balachandran, Public Utilities General Manager  
Certified as to  
availability of funds: Scott G. Miller, Interim Finance Director/Treasurer  
Approved by: John A. Russo, City Manager  
Approved as to form: Gary G. Geuss, City Attorney

Attachments:

1. Electric Service Contract between Western and the City of Riverside
2. Amended and Restated Implementation Agreement between Western, the Bureau of Reclamation, and the City of Riverside
3. Presentation