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GLENDALE HOOVER POWER ALLOCATION AND CONTRACTS

Staff Contact: Craig A. Johnson, P.E., Director, Water Services
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Purpose and Policy Guidance

This agenda item is for City Council consideration of staff recommendations regarding contracts associated with an allocation of hydroelectric power from Hoover Dam. Glendale received an allocation of Hoover power from the Western Area Power Authority (Western) and will need to execute two contracts to receive the power associated with the allocation. Staff is seeking guidance from Council regarding approval of a contract with the Arizona Power Authority (APA) to receive the allocation and a separate contract with Salt River Project (SRP) to receive the value of the Hoover power.

Background

Water supplies and power generated from the Boulder Canyon Project serve over 20 million people. Power from Hoover Dam is allocated to Arizona, California, and Nevada.

Electricity from the dam's powerhouse was originally sold pursuant to a 50-year contract, authorized by Congress in 1934, which ran from 1937 to 1987. In 1984, Congress passed a new statute which set 30-year power allocations from the dam from 1987 to 2017. In 2011, Congress enacted the Hoover Power Allocation Act that will allow extending the contracts until 2067. The 2011 Act also set aside 5% of Hoover power for sale to Native American tribes, electric cooperatives, and other new entities. Glendale is one of the new entities that received a small allocation of Hoover power as a result of the 2011 Act. The new arrangement will begin on October 1, 2017, pending contract approval.

The 2011 Act distributes Hoover power under four schedules:

Schedule A allocates power to the original purchasers of Hoover power under the Boulder Canyon Project Act of 1928.

Schedule B allocates power to the contractors who provided advance funding of the Hoover power turbine uprating authorized in the 1984 Hoover Power Plant Act.

Schedule C governs allocations of excess energy, if any, to customers in Arizona, California and Nevada.

Schedule D was created as part of the 2011 Act and will allocate power to eligible new entities.

The allocation of Schedule D power in Arizona took place under two methods. Schedule “D1” power was allocated by Western. This Federal process was completed on December 18, 2014. Glendale received an allocation of D1 power from Western, in the amount of 426 kW of contingent capacity, with 650,591 kWh of firm summer energy and 279,359 kWh of firm winter energy for a total of 930,050 kWh.

The second method “D2” was an allocation by the APA. Glendale did not receive any Schedule D2 power as a result of the Arizona process.

A number of other municipalities in Arizona also received new allocations. In the Salt River Valley these include Avondale, Buckeye, Chandler, Peoria, Phoenix, Scottsdale, and Tempe.

Analysis

In Arizona, the Hoover power will be contracted from Western to the APA which will, in turn, contract with specific customers for each class of power schedule.

Glendale will need to enter into an agreement with the APA to receive its Hoover power allocation and then enter into a bill crediting arrangement with one of its host providers, APS or SRP.

Community Benefit/Public Involvement

Water Services became interested in Hoover power as an additional source of electricity to help meet the energy needs associated with our water and wastewater utility. This lower cost electric power will help to maintain efficient and cost effective water and wastewater production, treatment, and delivery for the next fifty years.

Water Services staff have been monitoring and participating in the Hoover power allocation process for more than five years. Glendale submitted an application for Hoover power as part of the Western allocation on March 14, 2014. On April 27, 2015, Glendale submitted an application to the APA as part of the Arizona process.

Sustainable, renewable hydroelectric power is a helpful resource that assists in the production of drinking water and the treatment of effluent. The 2017 Hoover power allocation will be a sustainable resource that allows Glendale to stay green and serve its mission to its citizens.

Budget and Financial Impacts

Having access to low-cost hydroelectric power from Hoover Dam will reduce the amount of money that Glendale will pay for electricity. Because the amount of the Glendale allocation is small, the per-year financial benefit to the City is also small. The financial return is further reduced for the first five years of the 50-year contract by up-front costs that Glendale must pay. In addition, there are annual costs that must be paid to the APA whether or not power is received.

Up-front costs are those related to development of the new contracts and reimbursement of pre-2017 investments in the Project by new customers. The largest portion of the up-front fees is repayable capital advances. These are pre-2017 investments in long-term capital items, like turbines and generation equipment that has 30-50 year service life.

Working with consultant K.R. Saline and Associates, staff has calculated that using the SRP bill-crediting agreement will save the City \$107,919.32 over the first ten years of the APA contract. If the APS bill-crediting arrangement is used, staff estimates the City will save \$82,283.16. These amounts are shown in the table below:

Using SRP	Savings	Using APS	Savings
1st 5 years	\$ 37,610.94	1st 5 years:	\$ 24,530.90
2nd 5 years	\$ 70,308.38	2nd 5 years	\$ 57,752.26
Total Savings	\$ 107,919.32		\$ 82,283.16

The cost-savings benefit over the duration of the 50-year contract will vary based on the utilization of the Hoover Dam generation facility, the capital cost of maintaining the facility, and the bill credit offered by the electric service provider. The amount of savings, however, should increase significantly over time as the cost of other sources of commercial power increases. Using the more favorable SRP credit of \$10,791.93 per year for the first ten years, the total savings to the City would be \$539,596 over fifty years. Water Services recommends that City Council support moving forward with a power allocation contract with the APA and a bill crediting arrangement with SRP.