- **Board of Directors**
  Engineering and Operations Committee

9/13/2022 Board Meeting

7-5

Subject

Authorize an agreement with Calpine Energy Solutions, LLC for the sale of renewable energy from the Phase I-II hydroelectric power plants; the General Manager has determined that the proposed actions are exempt or otherwise not subject to CEQA.

Executive Summary

This action authorizes the General Manager's execution of an agreement with Calpine Energy Solutions, LLC (Calpine) for the sale of renewable energy and renewable energy credits (RECs) from nine Phase I-II hydroelectric power plants.

Details

Background

In the 1970s, Metropolitan initiated a program to develop conduit hydroelectric power plants on its water distribution system. Nine of these plants were developed in phases and have a total nameplate capacity of 80.4 megawatts. The Phase I plants include the Foothill Feeder, Lake Mathews, Yorba Linda, and San Dimas plants that were built between 1979-1981. The Phase II plants include the Red Mountain, Venice, Corona, and Temescal plants that were built between 1982-1986, as well as the Diamond Valley Lake plant that was converted to hydroelectric generation in 2002. These Phase I and II hydroelectric power plants: (1) meet the definition of eligible renewable energy projects under state law; (2) are located near electrical load centers; and (3) generate electricity as water moves through Metropolitan's distribution system to meet member agency water demands. Power generation from Phase I plants was sold to the California Department of Water Resources (CDWR) under a previous agreement that terminates on September 30, 2022. Phase II generation was sold to CDWR under a separate agreement that terminated on December 31, 2020, and has been sold at market prices since the Phase II agreement expired.

The energy from these plants qualifies as renewable, and as such, offers the buyer the ability to count the output toward its State of California Renewable Portfolio Standard (RPS) obligation. Although RPS requirements will increase to 50 percent by 2026, 60 percent by 2030, and 100 percent by 2045, RPS contract prices have been decreasing due to: (1) falling prices for wind and solar technologies, which together are expected to make up a majority of the total renewable generating capacity in California; (2) a surplus in RPS energy with investor-owned utilities' RPS requirements being met through 2025; and (3) the requirement that began in 2021 that 65 percent of RPS resources be contracted for ten or more years. RPS contract prices for short or intermediate terms are forecasted to remain relatively flat for the next several years.

On May 25, 2022, Metropolitan issued a Request for Offers (RFO) requesting proposals from approximately 50 entities for traditional and flexible term purchase of bundled and stand-alone products of Energy, RECs, and Resource Adequacy (RA) capacity output from the nine plants. In response to the solicitation, Metropolitan received offers from six bidders for the plants' outputs. Based on an evaluation of the proposals completed by Metropolitan staff, the 10-year term proposal submitted by Calpine was identified as providing the best economic value and portfolio fit for bundled renewable energy and RECs to Metropolitan over a long-term period, starting October 1, 2022, through September 30, 2032.

Key Terms and Conditions

The key terms and conditions of the agreement with Calpine are:

1. An electric industry standard contracting document, Western Systems Power Pool (WSPP), will be utilized. Both Metropolitan and Calpine are parties to the WSPP, and Metropolitan has used it on numerous Colorado River Aqueduct energy transactions.
2. The term of the ten-year agreement would be from October 1, 2022, through September 30, 2032.
3. The buyer would take possession of and can claim all environmental and renewable attributes for the energy sold.
4. Metropolitan's contractor would act as the Scheduling Coordinator to interface with the California Independent System Operator (CAISO) for the sale of the generation into the CAISO energy market on behalf of Calpine, for which Metropolitan would receive a payment from CAISO settlements directly for the value of the renewable energy. Metropolitan would receive a separate payment from Calpine for the value of the RECs.
5. The energy pricing under the new contract is based on the daily market energy price plus a fixed adder. The fixed adder represents the premium for the environmental and renewable attributes.
6. Estimated total annual revenue varies depending on the generation achieved at each of the nine plants which have a combined total nameplate capacity of 80.4 megawatts. Annual generation from these nine plants has varied based on water deliveries in the past ten years (2012-2021) between 86 to 197 gigawatt hours (GWh), with an average generation of 148 GWh hours per year.
7. Based on recent generation amounts and projected market energy prices, annual revenues from this agreement are estimated to range from $1.1 million to $2.5 million, averaging around $1.85 million per year.
8. There are no minimum generation requirements, and this agreement does not create any restrictions on Metropolitan's water system operations.

Policy

Metropolitan Water District Administrative Code Section 8121: General Authority of the General Manager to Enter Contracts

Metropolitan Water District Administrative Code Section 11104: Delegation of Responsibilities

California Environmental Quality Act (CEQA)

CEQA determination for Option #1:

The proposed action is categorically exempt under the provisions of CEQA and the State CEQA Guidelines. In particular, the proposed action involves the operation of existing equipment and facilities with negligible or no expansion of use beyond that existing at the time of the lead agency's determination. In addition, it will not have a significant effect on the environment. Accordingly, this proposed action qualifies as a Class 1 Categorical Exemption (Section 15301 of the State CEQA Guidelines)

CEQA determination for Option #2:

None required

Board Options

Option #1

Authorize an agreement with Calpine Energy Solutions, LLC for the sale of renewable energy from the Phase I-II hydroelectric power plants.

Fiscal Impact: Estimated total annual revenues would be approximately $1.85 million, depending on water delivery requirements and resulting generation.

Business Analysis: Provides Metropolitan with a stream of revenues tied to the renewable power value that is greater than selling energy into the CAISO energy market. The sale also assists other power entities in their renewable goals.

Option #2

Direct staff to continue negotiations or initiate new negotiations with the same or new parties.

Fiscal Impact: The fiscal impact of this option is unknown. If new agreements are not in place by the time the existing agreement expires on September 30, 2022, Metropolitan would sell the energy for the Phase I and II plants into the CAISO energy market. It is expected that the environmental attributes of the energy would have to be sold separately, and revenues would be substantially less than with the proposed agreement.

Business Analysis: Completing negotiations for the renewable power under an alternative agreement will take more time and may not be completed before the existing agreement expires. Without an agreement, the energy could be sold into the CAISO energy market, but the value of the environmental attributes would be significantly discounted.

Staff Recommendation

Option #1

8/23/2022

Brent M. Yamasaki *Date*
Water System Operations Group Manager

8/24/2022

Adel Hagekhalil *Date*
General Manager

Ref# wso12691361