



STAFF REPORT

DATE: NOVEMBER 20, 2018
TO: HONORABLE MAYOR AND CITY COUNCIL MEMBERS
FROM: BILL SMITH, CITY MANAGER
PREPARED BY: DAVID KOLK, PUBLIC WORKS & UTILITY SERVICES DIRECTOR
SUBJECT: SCPPA PSA MAMMOTH CASA DIABLO IV ENERGY PROJECT

RECOMMENDED ACTION

Staff recommends that the City Council take the following action:

Approve Resolution R-111-18, authorizing the participation in the Southern California Public Power Authority (SCPPA) Power Purchase Agreement (PPA), for up to 15 MW of renewable energy, with ORNI 50, LLC. Mammoth Casa Diablo IV Energy Project and authorizing the City Manager to execute the Power Sales Agreement (PSA) documents in substantially the form provided.

BACKGROUND

In April 2011, the State of California passed legislation (SB X1 2) amending the State's Renewable Portfolio Standard (RPS), and setting specific renewable energy resource targets each electric utility, including publically owned utilities (POUs), must meet. SB X1 2 also set specific reporting periods and enforcement rules for meeting the RPS targets. With the adoption of SB X1 2, utilities are required to meet 20% of their retail load with renewable energy by the end of 2013; 25% of their retail load by the end of 2016; and 33% of their retail load by the end of 2020.

In October 2015, the State Legislature passed SB 350, which, among other things, increased the RPS requirements from 33% in 2020 to 50% by 2030. In September 2018, the State again passed legislation, SB 100, which further increased the RPS mandate to 60% by 2030, and encourages the use of zero-emission resources to meet 100% of retail sales. Colton Electric Department (CED) is currently meeting the requirements of 29% of its retail load with renewable energy sources for calendar year 2018, and will meet the 33% goal for 2020.

CED's largest resource (30 MW), San Juan 3 Generation Station (SJ3) ceased operations in December 2017. CED had increased its procurement of renewable energy in advance of the SJ3 shutdown, as indicated in its Integrated Resource Plan (IRP), adopted in 2012 and updated in 2017.

Since 2013, CED has entered into several PSA's with SCPPA for renewable energy from various facilities, including 7 MW of solar PV from Astoria II, 3 MW of Solar PV from Kingbird B, and up to 10 MW of landfill gas from Puente Hills Gas-to-Energy Facility. CED also has four (4) Power Purchase Agreements (PPAs) for approximately 5 MW of solar PV on its distribution system (Colton Solar 1, Colton Solar 2, Gonzales Center Carport, and Arbor Terrace Community Solar). CED also has a PPA with Avangrid Renewables, LLC for up to 3 MW of wind generation from the High Winds facility, and 3.72 MW from the MWD Small Hydro facility.

In February 2013, the City Council approved SCPPA Renewable Development Agreement, Phase II, allowing Colton to participate in the annual SCPPA Request for Proposal (RFP) process for renewable energy projects. Each year, various developers submit proposed renewable projects to SCPPA. SCPPA staff and the member utilities regularly evaluate the proposals and determine interest from the various members. If there is sufficient interest, SCPPA and the members begin negotiations with the developers for a power purchase agreement (PPA). The PPA is generally between SCPPA and the developer; however, each utility and its legal counsel are involved in the negotiation. In addition to the PPA, the project also involves a Power Sales Agreement (PSA) between SCPPA and each member utility, for each utility's share of the project output.

ISSUES/ANALYSIS

CED's 2017 IRP update identified the need for an additional 10 to 15 MW of baseload energy to meet its load forecast beginning in 2021. Ormat Nevada, Inc. (dba ORNI 50, LLC) submitted a proposal through the SCPPA RFP process for a 25 MW baseload renewable, geothermal, with resource facility, with resource adequacy (RA) attributes in Mono County, California. The capacity factor for the facility is approximately 95%. The facility will have a direct interconnection into the CAISO, allowing the energy from the facility to qualify as a PCC1 resource for RPS.

CED staff evaluated the proposal and feels this project is a good fit for its resource portfolio because it is a baseload renewable resource, with RA, and qualifies as PCC1 energy for RPS compliance. The City of Banning Electric Department also identified this project as a good fit for their portfolio. Ormat's proposal is for a minimum of 20 MW of energy from the facility. Colton can take up to 15 MW and Banning is willing to take up to 5 MW. Commercial operation date (COD) of the facility is July 1, 2021, with a possibility of an earlier Cod in April 2020.

SCPPA's staff and legal counsel, together with each staff from CED and Banning, entered into PPA negotiations in January 2018. At the onset, the PPA price was \$76.50 per MW. The SCPPA team has negotiated the price down to \$68.00 per MW, for a 25-year term. This is an annual

savings to CED of \$1,191,360, or a total savings of \$29,784,000 over the 25-year term of the PPA. The price per MW includes resource adequacy (RA) and environmental (renewable energy credits, or RECs).

This is the lowest price geothermal project proposed to SCPPA. In comparison, CED is currently paying \$80 per MW for baseload renewable energy from the Puente Hills Landfill Project. The \$68 PPA price is higher than current proposals for solar PV; however, solar PV is only available during daytime hours, unless some form of storage is added to the facility which extends generation by 2 to 4 hours each evening but reduces energy production during the day. A recent analysis of solar PV with sufficient storage to essentially make the intermittent solar consistent with baseload shows the cost would be approximately \$67 MW. The \$68 MW price negotiated is reasonable and good for CED and its ratepayers.

The SCPPA Board of Directors approved the Power Purchase Agreement and the Power Sales Agreements for Colton and Banning on October 18, 2018. CED placed this item on the agenda for the Colton Utilities Commission for the regular meetings in August and September, 2018, however, both meetings were cancelled due to lack of quorum. The item has been placed on the Colton Utilities Commission Agenda for November 19, 2018, for a recommendation to the City Council.

FISCAL IMPACTS

CED's entitlement will be 75% of the PPA energy. Whenever the facility is operating CED will be required to take its share of the output at \$68.00 MW. CED will pay only for the energy that is delivered at this fixed price. Since this is a power purchase agreement, Colton will not have ownership in the project and will not incur any capital expenditures. At full capacity, the total annual cost for energy, including RECs and RA, from this facility will be \$8,935,200, for approximately 131,400 MWh. The Electric Department will include sufficient funds in its power supply budget in Fiscal Year 20/21 for the energy expected from this project. If the developer expects an earlier COD in April 2020, CED will include sufficient funds in the Fiscal Year 19/20 power resource budget.

ALTERNATIVES

Provide alternative direction to staff.

ATTACHMENT

1. 11-20-18 Resolution R-111-18 Mammoth Casa Diablo IV
2. Mammoth Casa Diablo IV 11-20-18