

Draft Request for Proposals

Introduction

On December 6, 2016, Council adopted Resolution 16-219 establishing the goal of achieving ZNE for electricity and natural gas use for the City's portfolio of facilities by 2025. On July 16, 2018, staff presented a report¹ showing that in 2017, the City's renewable energy facilities produced approximately 56% of the electricity consumed by all City facilities, and approximately 45% of the City's total energy consumption (electricity and natural gas, combined).

The City currently purchases 100% carbon free electricity (Brilliant 100) from East Bay Community Energy (EBCE) for all City accounts except for those enrolled in PG&E's RES-BCT program. The City seeks to further reduce emissions and to increase resiliency by increasing on-site generation, and by possibly implementing energy storage.

Scope of Work

Provide a ZNE Roadmap that identifies a plan the City can implement to meet its goal of ZNE-by-2025 for the City's facilities. The Roadmap will include recommendations for:

- Suitable locations for the cost-effective installation of renewable power generation sufficient to equal the kilowatt hours of electricity purchased by the City on an annual basis.
- - For each location, include the size of the generation facility; the recommended tariff, PPA or other method for realizing revenue, bill savings, or bill credits; and the estimated payback and IRR.
 - Specifically, City Hall should be considered for solar – both on the flat portion of the roof and on the sloped copper portions.
 - Renewable power generation should consider future electrical demand related to switching existing appliances and equipment from natural gas-powered to electric.
 - The analysis should assume that some of the City's vehicles will be replaced with electric models by 2025 and should identify potential EV charging infrastructure. (Number of EVs anticipated will be provided prior to start of work.)
 - Recommendations for the above must make good economic sense and must include cost impacts related to the use of the property.
- A rate analysis to determine the most cost-effective tariff for each of Hayward's 400+ accounts, including Hayward's existing renewable energy facilities.
- Upgrades to existing equipment and facilities (including switching existing natural gas appliances to electric), and

¹ Report is available at <https://hayward.legistar.com/LegislationDetail.aspx?ID=3551019&GUID=3859A452-BF4B-4C3D-BDA5-D20F843A1F11&Options=&Search=>

- Ways to leverage or optimize the deployment of the City's existing energy-related assets and program involvement, including but not limited to the City's existing solar PV arrays, the Cogeneration system at the Water Pollution Control Facility, and the City's participation in PG&E's RES-BCT program
- Evaluate impact of new solar facility currently in construction on City's ZNE goal
- Load shifting and/or demand response
- Possible use of batteries to reduce demand charges

Resiliency – In addition to reducing greenhouse gas emissions, the City seeks to improve resiliency and its ability to continue to perform essential services during and after a natural disaster. The Roadmap should include:

- Evaluate the potential for micro-grids and/or battery storage on City facilities where feasible.
- Include recommendations for increasing the resiliency of the City's Emergency Operations Center (located in City Hall).
- Evaluate possible use of batteries to partially power critical facilities such as fire stations during a grid service disruption.
- (Evaluation of the City's Water Pollution Control Facility for a possible microgrid is currently underway and will not be included in this scope.)

Financing – The Roadmap should seek to be a revenue neutral endeavor over the life of the infrastructure (i.e. capital investments would be paid for through savings in the City's Operations and Maintenance expenses). Exceptions may be granted for investments required because of safety concerns, scheduled upgrades, or end-of-life replacements. Financing strategies for implementation of the Roadmap should clearly identify the sources of funds to pay for the upfront costs of the capital investments, savings and avoided costs, and rebates, grants, and incentives that may be secured to assist with the Roadmap's overall economics.

Data – Upon request, the City will provide the following data:

- 15-minute interval data for all of the City's electricity meters, with each meter clearly identified as to what facility it serves and what tariff the meter is currently under.
- Consumption data for all of the City's natural gas meters, with each meter clearly identified as to what facility it serves and what tariff the meter is currently under.
- A list of the benefiting accounts enrolled in the City's RES-BCT program, the locations, sizes, ownership arrangements, and annual production data of all the solar arrays on City facilities
- A list of additional benefitting accounts to be added to the City's RES-BCT program following completion of the current expansion of the solar facilities currently under construction at the WPCF
- The biogas production at the WPCF, the load profile of the WPCF, and the electricity generation profile of the WPCF's cogeneration facility
- The age, make and model of the major energy-consuming equipment across the City's facilities (e.g. HVAC equipment, boilers, etc.)