Fact Sheet: City of Healdsburg's Floating Photovoltaic Solar Array

What is this project about?

In January 2021, the City of Healdsburg completed a 4.78-megawatt photovoltaic (PV) solar array – the largest in the U.S. -- for the recycled-water ponds at its Wastewater Treatment Facility.

How does the floating solar array benefit the community?

This solar-array project is a major milestone for Healdsburg. It will provide 8 percent of the City's electric needs as well as reduce harmful algae blooms and improve the quality of the water to recycled-water users, which include local vineyards and farms.

The project also helps Healdsburg's publicly owned utility to meet the State of California's environmental sustainability requirements and climate goals. Healdsburg's electric utility must continuously add renewable and carbon-free energy. In 2025, our electric power must be at least 50 percent renewable. In 2030, that requirement increases to 60 percent. These climate policies help ensure clean power for all ratepayers.

Given the need for shade and new renewable energy, the floating solar project provides an important co-benefit to City operations, recycled-water customers, and the community.

Some unique design aspects of the City's solar array:

- It floats! Most solar PV arrays are ground- or roof-mounted.
- It is the largest floating solar array in the United States.
- The floatation devices can be moved so City wastewater staff can inspect and repair the pond liners if needed.
- The project has a design life of 25 years but it may operate much longer and can incorporate a future utility-scale battery storage system.

Background

Healdsburg's Wastewater Treatment Facility is a state-of-the-art tertiary treatment system processing raw sewage into clean and disinfected recycled water. This water is stored in large thermoplastic-lined ponds and conveyed through pipelines for agricultural users, thus reducing demand for precious groundwater. The containment ponds bloom algae during hot summer days and require shade to reduce algae growth and ensure the highest quality recycled water.

Healdsburg staff conceived the project with the support of the Northern California Power Agency. The contract was awarded to Dissigno in June 2020 and construction began in

October 2020. Through collaboration with Dissigno, White Pine, and Collins Electric, the City moved this project from contract award to interconnection in the same year.

The project was contracted as a Power Purchase Agreement (“PPA”). The solar developer paid for the entire project and owns the array. Healdsburg Electric simply pays a fair market price for the electricity delivered to our system. One important benefit of a PPA is that it allows the solar developer to apply for federal tax incentives that governmental entities are not eligible for, and in turn, cuts Healdsburg’s cost for energy.

For more information on the City’s solar-array project, please contact Utility Director Terry Crowley, tcrowley@ci.healdsburg.ca.us.