

## SOLAR ARRAY

**STATE PROGRAM:** Florida Department of Environmental Protection

**ASSISTANCE RECIPIENT:** City of Marianna

**ASSISTANCE AMOUNT:** \$5M



### PROJECT DESCRIPTION

Electricity for the City of Marianna wastewater plant and spray field constitutes over 23 percent of operational costs, with an expense exceeding \$30,000 per month. Marianna is a small rural community with a population less than 6,000 and energy costs place a great deal of pressure on the wastewater rates of its residents. To reduce electrical costs, the City received a \$5 million CWSRF loan for the installation of two solar facilities, including all transformers, power distribution lines, site clearing, grading, and fencing in addition to the installation of the solar arrays.

The solar power systems were designed to provide nearly all the energy needs for the City's wastewater treatment system through net metering. By reducing the operational cost over 20 percent, it will ensure that wastewater rates are stable and affordable for the future. As a direct result of this project, the electrical costs have been reduced by more than 90 percent. This reduction in costs is especially important since the City was devastated by Hurricane Michael in 2018. Completed approximately one year after the hurricane, this project is greatly assisting the City's residents in their recovery. In addition to a \$301,000 state grant for this project, the \$5 million CWSRF loan was made at zero percent interest with an extended term of 25 years, and it included \$2,711,000 in principal forgiveness. As a result, the City is only responsible for repaying \$41,000 annually. Since the savings is approximately \$25,000 each month, the debt service can be paid annually from less than two months of savings. This solar project helps the City cover much of their expenses by allowing them to create their own energy. With this new source of energy, plus the affordable financing provided by the CWSRF, this project addresses the problem of affordability in a creative approach, especially for a community rebuilding after experiencing their most devastating hurricane.

To read more about this case study, please visit [https://www.epa.gov/sites/default/files/2021-02/documents/2020\\_pisces\\_compendium.pdf](https://www.epa.gov/sites/default/files/2021-02/documents/2020_pisces_compendium.pdf).