

The New Jersey Environmental Infrastructure Financing Program



CCMUA Net Zero Program

Camden County Municipal Utilities Authority

The Camden County Municipal Utilities Authority (CCMUA) is on target for Net Zero energy use by 2020. The CCMUA has received accolades for its green and gray infrastructure improvements within its facilities and throughout the City of Camden, completed through the New Jersey Environmental Infrastructure Financing Program (NJEIFP). Now, with the help of NJEIFP financing, the CCMUA is on its way to becoming 100% energy self-sufficient by 2020, and has gained recognition as a Net Zero Hero by the EPA! The CCMUA received funding for several projects included in the Net Zero Program through the NJEIFP, a joint partnership between the New Jersey Department of Environmental Protection (NJDEP) and the New Jersey Environmental Infrastructure Trust (NJEIT).



Camden County Municipal Utilities Authority Solar Array
Photo courtesy of the Camden County Municipal Utilities Authority

CCMUA Net Zero Program Components:

- **Sedimentation Tank and Aeration System Upgrades (Completed NJEIFP Project):**

Upgrades to the sedimentation tank and aeration system enabled the CCMUA Wastewater Treatment Plant (WWTP) to remove and treat more solids through the natural gravity process and rely less on the energy-intensive pure oxygen aeration system. Upgrades to the aeration system further reduced the CCMUA's energy usage. These improvements reduced the WWTP's energy

consumption by approximately 25%. The two projects were funded with \$25 million in low-interest financing from the NJEIFP.

Apply Online

Under the NJEIFP rolling application process, applications can be submitted anytime of the year via our online H₂LOans portal (www.h2loans.com).

Fund Your Project

Have project specific questions?
Contact our program staff:

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- **Solar Array (Externally Funded):** A new 1.8 MW Solar Array is in service and providing approximately 10% of the energy required to run the CCMUA WWTP.

- **Sludge Digestion/CHP Facilities (Current NJEIFP Project):** A new Sludge Digestion facility will reduce the sludge generated by the WWTP by approximately 50% and use it to produce biogas, which in turn will be converted to electricity by a new combined heat and power facility. Once complete, the 3.5 MW combined heat and power facility will provide at least 50% of the WWTP's energy requirements. Construction is anticipated to begin in late 2017 and estimated to take 2 years to complete.

- **Sustainability Loop (Proposed NJEIFP Project):** Treated effluent will be transferred to an energy-from-waste incinerator for use as cooling water, and the incinerator will send electricity generated from trash to the CCMUA. The effluent will replace one

million gallons of groundwater withdrawn by the incinerator per day from a critical water supply area. The Sustainability Loop project is expected to provide approximately 30% of the CCMUA's energy requirements.

Cleaner Environment, Healthy Communities

Investing in the CCMUA's wastewater infrastructure is creating numerous positive impacts for the city's economic development, public health and environment.

City Benefits

- *Reduced City-wide Carbon Footprint*
- *Affordable User Rates*
- *Decreased Odors*

Environmental Improvements

- *Reduced Greenhouse Gas Emissions*
- *Less Landfill Space for Sludge Disposal*
- *Reduced Groundwater Withdrawal*

CCMUA Executive Director Andy Kricun on NJEIFP cost savings,

Only because of the low interest rates offered by the NJEIFP, our annual debt service payments are lower than the annual savings in electricity and maintenance costs from the new equipment. As a result, we were able to undertake all of these green energy improvements without raising rates to our customers. That would not have been possible if not for the low interest rates.

Get Your Permit

Once you submit a loan application with the NJEIFP via H₂LOans (www.h2loans.com), a program manager will be available to assist you through the permitting process.

For large projects that need 3 or more permits, submit a *Permit Readiness Checklist* (www.nj.gov/dep/pcer/introchecklist.htm) to NJDEP's Office of Permit Coordination and Environmental Review.



CCMUA Solar Panels. Photo by NJDEP DWQ

Navigating Environmental Permits

In order to construct or change the operation of a wastewater collection, conveyance or treatment facility (such as CCMUA's wastewater treatment plant improvements), the proper environmental review(s) and permit(s) from the NJDEP are required. NJDEP is readily available to help applicants through the permitting process as quickly and efficiently as possible.

NJEIFP financing is a great way for treatment facilities to complete energy efficiency upgrades and renewable energy features, and maybe even go for Net Zero. Renewable energy projects for these facilities, including solar, wind, biogas combined heat and power, geothermal, and micro-hydroelectric, are all eligible for financing.