

# Maryland SRF Supports Wind Turbine at WWTP

Crisfield, Maryland, a small, economically-disadvantaged city on the Maryland's Eastern Shore, is combining CWSRF and other funding to design and construct a wind turbine at their wastewater treatment plant. The turbine will reduce the city's electric bill and its carbon footprint.

## *The Project*

Using CWSRF funding received from Maryland's Water Quality State Revolving Fund, a 750 KW wind turbine and related equipment is being designed and built to provide electricity to the City of Crisfield Wastewater Treatment Plant. Crisfield's location at the lower end of Maryland's Eastern Shore, surrounded by water on three sides, will allow the 300-foot high wind turbine to use the strong, unobstructed winds off Chesapeake Bay's Tangier Sound to power the plant. Taking the local conditions into account, the wind

turbine is sized to meet the wastewater treatment plant's peak demand. Energy produced off-peak in excess of the plant's need will be fed back into the commercial electric power grid.

## *Financial and Other Benefits*

For a small, economically disadvantaged city like Crisfield, where the wastewater treatment plant accounts for more than half of the city's electric bill, the wind power will mean big savings—between \$140,000 and \$165,000 a year—and a boon to the environment. The project, expected to be completed in the summer of 2016, will enable the city to apply the funds it usually spends on power toward other needed projects.

Based on an average wind speed of 18 miles per hour, the turbine is expected to produce 2,717 megawatt hours per year of electric power. This wind power is expected to reduce greenhouse gas emissions related to wastewater treatment in Crisfield by 765 metric tons per year.



Wind Turbine. Photo credit: U.S. Department of Energy



ECOS

This factsheet was developed by the Environmental Council of the States. It is one of ten factsheets on how states have used flexibility in the Clean Water State Revolving Loan Funds to pursue innovative projects. To view the other factsheets and information on other state projects visit [www.ecos.org](http://www.ecos.org).

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## ***Financing***

This work is being financed through a combination of mechanisms. Maryland's Water Quality State Revolving Fund provided a \$453,000 low-interest loan, as well as, \$3.17 million in loan principal forgiveness. This funding is being combined with a \$530,000 Community Development Block Grant from the U.S. Department of Housing and Urban Development. This financing is key to Crisfield's ability to pursue this project.

## ***Timeline***

CWSRF funding for this project was awarded by the state in 2013. While the city had hoped to have the turbine up and running by the summer of 2015, delays in equipment delivery have pushed that back a year. Now, in the summer of 2016, the city is looking forward to reducing its carbon footprint and saving money on its electricity bill that can then be spent on other critical projects.



Mock up of Crisfield with turbine at wastewater treatment plant. *Image courtesy of Maryland.*

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## ***More Information***

For more information on this project contact:

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