



SUSTAINABILITY

FORT CARSON, COLORADO

SOLAR POWER ARRAY CONSTRUCTED ON FORT CARSON LANDFILL



The largest solar power site in the Army, constructed on a closed landfill, will soon supply power to Fort Carson, Colo.

The two-megawatt, ground-mounted photovoltaic array, covering 12 acres, should begin producing power this winter, according to Fort Carson officials.

The system will generate 3,200 megawatt-hours of power annually, according to the Department of Energy Western Area Power Administration (WAPA), one of seven public and private entities responsible for its creation.

The expected power supply equates to approximately 2.3 percent of Fort Carson's energy consumption, or enough to power the equivalent of 540 Fort Carson homes per year.

The innovator behind the idea to use the old landfill for the project was Stephanie Carter, Directorate of Logistics storm-water program manager.

Carter previously worked in environmental cleanup with the Installation Restoration Program. She saw the landfill site as an ideal candidate for the array. Without costly excavation, capping or extensive cleanup, reuse options for landfills are limited.

The former landfill, operational from 1965 to 1973, contains mostly construction debris and is regulated as a solid waste management unit as part of Fort Carson's permit with the Colorado Department of Public Health and Environment.

The ground-mounted solar array could produce energy efficiently for up to 40 years, according to the contractors. The energy produced by the solar array will tie in to a utilities substation located across the street from the site.

To bring the idea to life, the seven entities worked together to create a mutually beneficial arrangement. Fort Carson leased the land to a group of utilities investors who built the system. Under its power marketing authority, WAPA wrote two contracts to allow Fort Carson to buy power from the array as supplemental energy for a low fixed cost for 20 years.

For more information

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The installation will actually buy the power from Colorado Springs Utilities, provider of all of Fort Carson's electricity. The lead contractor, meanwhile, will sell the resulting renewable energy credits to Denver's utility company, Xcel Energy, under Xcel's Solar Rewards program. Xcel will apply the credits to compliance with Colorado's renewable energy portfolio standard. That standard requires the state to get 10 percent of its energy from renewable sources by 2015 and 20 percent by 2020.

"We hope to use this collaboration as a model for other federal customers who have expressed interest in similar types of projects," said Randy Manion, renewables program manager for WAPA.

"Reducing Fort Carson's reliance on fossil fuels helps us build a sustainable energy future that is good for our bottom line, the environment and national security," said Vince Guthrie, who oversees Fort Carson's utilities and electric bills.

Note: This story is partially based on a Western Area Power Administration release.



For more information,
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