



Redstone Arsenal Solar Energy & Battery Storage Project

Bringing Energy Diversity and Cost Avoidance to Team Redstone

The U.S. Army Office of Energy Initiatives (OEI) and Redstone Arsenal, in collaboration with SunPower Corporation, have developed a 10-megawatt (MW), alternating current (AC)*, solar project with battery storage at Redstone Arsenal, Alabama. This project includes the Army's first privately funded, commercially available, and economically viable battery energy storage system, and brings energy diversity and cost avoidance to Team Redstone. The project will be compatible with a potential future microgrid to further enhance energy resilience and security at Redstone Arsenal and its critical missions.

This project is one of three large-scale energy generation projects on Army installations in Alabama. Other projects include the 10 MW solar project at Fort Rucker and the 7 MW solar project at Anniston Army Depot.

Project Details

- The project generates about 10 MW AC from an on-site solar array energy coupled with a 1 MW / 2 MW-hour battery storage energy system.
- The project and battery storage system generates on-site, fuel-free power for use by Redstone Arsenal and its tenants, and stores a portion of that power to be used to offset power and demand charges during peak rate times.
- Redstone Arsenal purchases the electricity produced by the project at a rate that is less than the current and projected utility cost.
- The project enhances energy resilience by adding diversity to the RSA's energy supply, and adds operational flexibility for a potential future microgrid.

- The project includes a lease for approximately 114 acres and a 27-year Power Purchase Agreement as authorized under Title 10 U.S.C. § 2667 and Title 10 U.S.C. § 2922a, respectively.
- This facility generates enough energy annually to power about 2,500 homes for a year.
- SunPower was awarded the project in April 2016.



About Redstone Arsenal

Redstone Arsenal is a United States Army garrison located in the Tennessee Valley in Madison County, Alabama. The installation has over 70 tenant organizations, including the U.S. Army Materiel Command, U.S. Army Aviation and Missile Command, Missile Defense Agency, U.S. Army Space and Missile Defense Command, and NASA Marshall Space Flight Center. The Arsenal has more than 38,000 acres of land, including over 25,000 acres of test areas, and supports 39,000 personnel. The Arsenal is a nationally recognized Department of Defense and Federal Center of Excellence focusing on materiel and logistics management, aviation and missile research, development and engineering, space operations, missile defense, intelligence, and homeland defense.

* Alternating Current (AC) is provided to consumers. Inverters convert the direct current (DC) from solar panels to AC and losses occur during conversion.



Redstone Arsenal, Alabama

About OEI

Secure and reliable access to energy is essential for Army readiness. The Office of Energy Initiatives (OEI)—under the Assistant Secretary of the Army for Installations, Energy, and Environment—serves as the Army's central management office for the development, implementation, and oversight of all privately financed, large-scale, renewable and alternative energy projects. The OEI collaborates with public utilities, industry, and other stakeholders to implement projects that include energy generation, energy storage, and energy control capabilities. These "islandable" capabilities can support critical operations in the event of a grid outage. For more information about OEI visit: www.oei.army.mil.

About SunPower

SunPower Corporation provides a diverse group of customers with complete solar solutions and services. SunPower has more than 30 years of experience with residential customers, businesses, governments, schools, and utilities around the globe. SunPower delivers maximum value and performance throughout the long life of every solar system. SunPower Corporation's headquarters are located in San Jose, California.



A 1 MW / 2 megawatt-hour battery storage system, coupled with a 10 MW, on-site solar array at Redstone Arsenal, AL