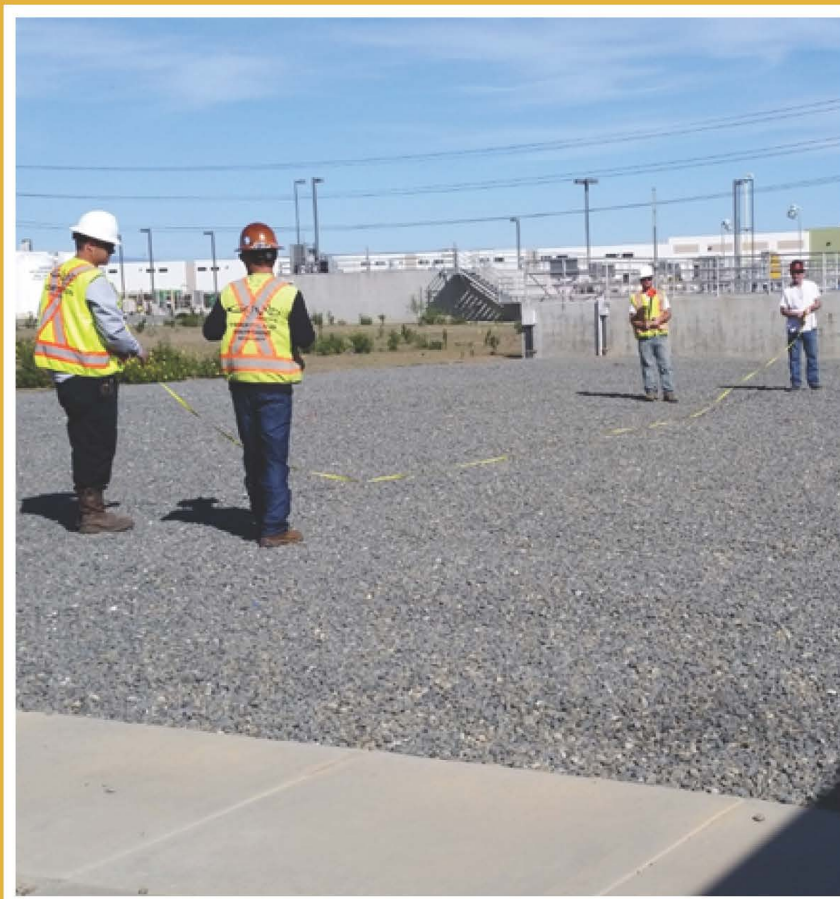


Regional Water Recycling Plant No. 5 Battery Storage

The Inland Empire Utilities Agency (IEUA/Agency) entered into a partnership with Advanced Microgrid Solutions (AMS) to install, operate and maintain 3.65 MW of battery storage at six IEUA facilities (four treatment plants and two pump stations). The batteries, supplied by Tesla, will reduce IEUA's demand for power during peak periods, saving the Agency approximately \$220,000 annually in electricity costs. The project will charge the batteries at night when power costs are at their lowest and use the batteries during the day when grid demand is highest and costs are exponentially higher. These battery storage systems will integrate IEUA's renewable installations and give the Agency a greater ability to cost-effectively meet the Agency's demand and optimize the delivery of self-generated electricity. Furthermore, the batteries can potentially act as a resource for the utility to shed grid load during periods of high demand.

DEVELOPMENT



Construction of the 1 MWh battery storage system at IEUA's Regional Water Recycling Plant No. 5 (RP-5) in Chino, California, began in April 2016. The batteries meter the power generated, in real time, from IEUA's diverse renewable portfolio and consumption from the grid.



The battery storage system electrically interconnects into RP-5's solar, food waste cogeneration, and 12kV grid connections to continuously meter the power consumption and generation. The battery storage system uses a complex algorithm to determine the most cost-effective method of meeting the site's power needs from all three sources.

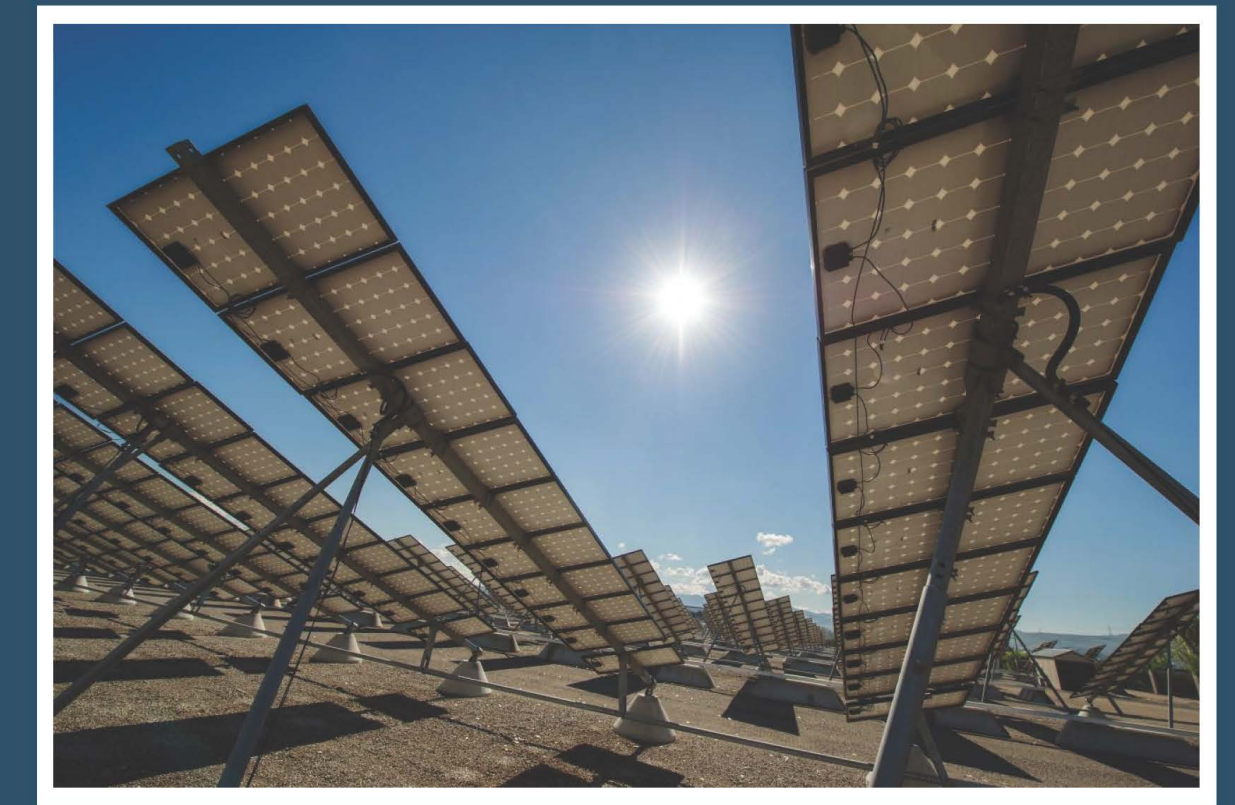


Construction of the RP-5 battery storage project was completed in June 2016. Storing electricity during periods of low grid demand and supplementing RP-5's power needs during peak periods saved IEUA approximately \$17,000 in the last half of 2016.

RENEWABLE INTEGRATION AND SUSTAINABILITY



The Tesla batteries enhance power reliability and stabilize energy costs, both invaluable benefits to an Agency providing an essential public service.



The batteries will be integrated into the 3.5 MW of solar at IEUA facilities. The ability to store renewable power aligns with the Agency's sustainability goals and reduces Greenhouse Gas emissions.



Food waste digesters at the RP-5 Solids Handling Facility process locally sourced food waste to produce biogas that is combusted in a 1.5 MW cogeneration engine. The biogas engine is interconnected to the battery storage system.



IEUA operates the Inland Empire Regional Composting Facility (IERCF) in Rancho Cucamonga, California, as a Joint Powers Authority with the Sanitation Districts of Los Angeles County. All biosolids processed at IEUA's treatment plants are transported to IERCF and processed in the largest indoor composting facility in the nation.



IEUA's Regional Water Recycling Plant Number 4 (RP-4) is located adjacent to IERCF in Rancho Cucamonga, California. The facility houses a 1 MW wind turbine to provide renewable power to the facility. A 2.5 MWh battery storage system is expected to complete construction at RP-4 in 2017.



In addition to integrating renewable power systems, the Tesla batteries improve IEUA's demand side management capabilities during demand response events, as Operations staff can call upon the energy stored to reduce grid imports to supplement reduction of operational loads.