



Photo: Wireless Lighting Control at Pleasanton Library. Courtesy of Energy Solutions

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Utility Scale Renewable Energy

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Utility scale renewable energy (USRE), as defined by the renewable energy program, is considered on a scale equal to 10 megawatts (MW) or larger. Research is targeted at filling knowledge gaps and technology needs to deploy and integrate utility scale renewable energy in a stable, secure, and environmentally friendly way. Research projects focus on system engineering in addition to developing data, technologies, and tools for planning and operating large renewable energy power plants that work with state, regional, and local transmission resources. Some of the main objectives of the USRE program are to:

- Advance the mixed use and hybridization of renewable energy technologies in order to synergistically maximize plant output while minimizing environmental impacts
- Develop and demonstrate effective utility scale storage technologies for one or more renewables
- Refine forecasting techniques to more accurately predict periods of low solar and wind generation and better plan for reserve generation
- Develop and demonstrate tools and techniques to minimize adverse environmental impact resultant from construction and operation of utility scale renewable energy plants

Renewables Research

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