

Emergency Backup Power

California power utilities have started to issue preemptive power shutoffs in high-fire risk areas and in response to weather conditions. These safety shutoffs present power concerns for critical facilities. Take action and mitigate risk with an emergency power generator.

Facility Types

- Pump Stations – potable water, recycled water, and sewage
- Water Wells
- Oil Fields and Facilities
- Treatment Plants – water and wastewater
- Industrial Facilities and Plants
- Critical Facilities
- Commercial Buildings
- Cellular Sites
- Medical Buildings and Centers
- Data Centers
- Residential High Rises

Services

- Electrical Engineering
- Structural Engineering
- Vendor Coordination
- Design - Site and Layout
- Siting
- Sizing
- Surveying
- Permitting
- Construction Support

Projects



Multi-Facility Backup Generators Project

Various Sites Throughout California

Due to massive wildfires throughout California, Southern California Edison (SCE) implemented a Public Safety Power Shutoffs (PSPS) program where they will preemptively shut off power in high fire risk areas to reduce risk during extreme and potentially dangerous weather conditions. A California-based water company has numerous facilities such as wells, pump stations, and reservoirs in these areas which must remain operational during any power shutoffs. This agency contracted with Cannon to provide electrical engineering services to add permanent automatic backup power systems to these facilities. Cannon is in the process of designing diesel generators and automatic transfer switches for 26 facilities. Engineering design efforts include electrical engineering, structural engineering, coordination with generator vendors, preparing permitting applications, and construction support services such as submittal reviews and answering contractor RFIs.



Ventura Water Generators

Ventura, California

In response to the Southern California Edison Public Safety Power Shutoff Program, Ventura Water contracted Cannon to provide civil, electrical, and structural engineering for ten sites total. Seven sites are proposed to receive permanent backup diesel generators and automatic transfer switches, and three sites to receive mobile generators. Cannon's civil engineering efforts included siting the location of the generators, grading, and site restoration. Electrical engineering efforts included assisting with the sizing of the generators, electrical design of the new backup power systems, and vendor coordination. Structural engineering and survey services were also provided.



Plant 224 Pump Station Engineering and Backup Generator

Covina, California

Suburban Water Systems (SWS) designed a new pump station and reservoir site at Plant 224 and selected Cannon to provide the electrical, controls, instrumentation, and SCADA panel design of the pump stations. Cannon also designed a backup power plan that utilized an emergency diesel generator and an automatic transfer switch. The backup power system was designed to provide power for two separate pump zones and operate one zone at a time. To accomplish this, the control system was designed to allow this single-pumping zone scheme. The low voltage power and SCADA system was also designed to be powered by the generator.



Emergency Power for Pump Station Upgrade

Burlingame, California

The City of Burlingame needed to make upgrades to two stormwater pump stations and one sewage pump station at the same location as one of the stormwater sites. Cannon was contracted to provide electrical engineering design services for the upgrades for these facilities. Part of our scope is to provide emergency backup power systems using diesel generators and automatic transfer switches. Our electrical engineering efforts include utility coordination, electrical distribution design, assistance with sizing and coordination of the generators, and incorporating the backup power design into the distribution design.