

CASE STUDY

ENDLESS BACKUP POWER AT A CRITICAL INTERSECTION

Western Systems partnered with El Dorado County to provide clean and reliable backup power for intersections

A CENTRAL CORRIDOR FOR BUSINESSES AND A NEW SHERIFF'S DEPARTMENT

Placerville, California, located in El Dorado County, has been a business community since its founding as a gold rush town. The Missouri Flat Road corridor connecting Placerville's two main highways, US Highway 50 and Highway 49, is lined with businesses and one intersection now serves the new El Dorado County Sheriff's Department.

The new Sheriff's office is on an 11-acre complex and has more than 100,000 square feet of building space. With the addition of the Sheriff's office, the County is expecting a noticeable increase in Sheriff dispatch traffic along this busy corridor.

A CRUCIAL INTERSECTION VS. ROLLING BLACKOUTS

The intersections along the Missouri Flat Road corridor have always been a priority for the County, but with the completion of the new Sheriff's Department facility, keeping the intersection up and running during an outage became paramount.

With energy shortages forcing Pacific Gas & Electric (PG&E) to issue rolling blackouts and wildfire Public Safety Power Shut Offs (PSPS) across the state, El Dorado County needed a solution to keep traffic moving safely during an outage. Other intersections throughout the County have experienced outages of 2 days or more, creating the need for a backup power system with extended run time.



FUEL CELL TECHNOLOGY FROM ALTERGY

Western Systems facilitated the installation of an Alteryg backup power system at the critical intersection. With Alteryg's fuel cell technology, the County can keep this intersection running for days, weeks, or even months during a power outage.

"We've seen what happens when other intersections are dark for one, two, or even three days, and we knew we didn't want that to happen at this intersection. With the new Sheriff's office, it's very important that we keep traffic moving safely during PG&E's PSPS's and rolling blackouts. Working with Western Systems, we were able to find the perfect solution to fit our needs, Alteryg's fuel cell technology."

— Darryl Brown, Traffic Superintendent at El Dorado County DOT

The Alteryg backup power unit can be easily refueled, enabling unlimited run times while producing clean, uninterrupted energy. The fuel cabinet is free-standing and easily accessible, so the bottles can be replaced even while the system is operating. A fill-in-place option will soon be installed to eliminate the replacement of bottles. The fuel cell enclosure is attached to the side of the cabinet, off the ground, to reduce the system's overall footprint.

RELIABLE, GREEN, LOW-MAINTENANCE BACKUP POWER

In addition to the unlimited run time of the Alteryg systems, El Dorado County also gets to enjoy its numerous other benefits, including:

- **Green energy** — Alteryg fuel cells are certified by the California Air Resources Board as zero-emission power generators.
- **Easy maintenance** — Alteryg's fuel cell backup power systems are easy to maintain. The entire PM checklist is an annual air filter replacement.
- **Small footprint** — The Alteryg cabinet has a smaller physical footprint than traditional fuel cells.
- **Quiet operation** — With no moving parts, there's no hum or noise from the fuel cell cabinet.

The Alteryg system installed on the Missouri Flat Road corridor is the first of its kind in the State of California. With rolling blackouts and wildfires becoming commonplace, El Dorado County is already working with Western Systems to pursue adding additional units at other critical intersections.

