"Wireless" Traffic Control Solutions

APPLICATION: *School/Pedestrian-Activated Solar Flashers*
LOCATION: Mono County, California U.S.A.

Description

Situated on the eastern slope of the Sierra Nevada, Mono County, California, has completed installation of solar flashers in two communities: Bridgeport and Lee Vining located along Highway 395, the main corridor from the Los Angeles basin to Reno, NV. The project was planned and executed with input from the Bishop, CA office of Caltrans.

Dual application school/pedestrian-activated solar flashers

The solar flashers are unique: they act as normal school flashers on a time clock and also include a radio activation function. In the morning and afternoon, the flashing lamps warn motorists of children crossing on their way to or from school.

The radio feature was included since the schools in each community are located across the highway from the town libraries that are used by students during the school day. Each school has two hand- held radio transmitters enabling teachers to activate the lights from the curb when taking their students to the library. Each mast arm assembly is equipped with a white 8-inch tram light fixture on the rear of the arm to give the user a visual indication that the lamps on the front have been activated.

Lee Vining, Caltrans installation

Maintenance of the flasher falls within the jurisdiction of Caltrans. To minimize spare parts, the design required solar electric for the primary power source and AC power for the lamp/flasher circuit. The system uses a Solar Traffic Controls' Speed Awareness Display (SPAD) power system, and was modified to include a DC- to-AC inverter to produce AC power for the AC LED lamp modules. A NEMA flasher module was included for the flasher function. Timing and logic functions use a modified version of the STC-01 time clock. A license-free radio receiver unit with digital addressing was included to detect signals from the handheld transmitters. Installation was done by a crew from TDS Engineering and proved somewhat tricky due to he extreme winter weather in the Sierra Nevada range during the early part of the year.

According to Kelly Garcia, assistant director of public works, both communities have expressed a great deal of satisfaction with the systems.

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Take these steps to insure the success of your solar-powered project:
1. Location - identify the site of the application; for example, the nearest town, village or city and state.
2. Load - specify the number and size of lamps, timers or other controls (anything which draws power).
3. Duty Cycle - determine how many hours per day and which days per week the load will be drawing power.

Go to "Send us your requirements" at www.SolarTrafficControls.com/support/requirements.php for more details.

Solar Power: a free source of energy
STC's solar-powered systems are designed for quick and easy installation in the field. Our careful front-end engineering minimizes your installation costs and provides years of trouble-free operation. The standard solar power system includes the solar array, system enclosure with all the necessary electronics, color-coded wiring harnesses, sealed batteries and full documentation. DC LED lamp kits can also be purchased. These include the LED beacon, lamp housing and mounting hardware.

STC Systems are Cost Effective
Our solar flasher systems allow you to stretch your budget to obtain the traffic safety devices you need at affordable prices. Most systems are equivalent to the cost of obtaining an AC power drop. Battery life is typically three to six years; less expensive than grid electricity for the same period of time.

Solar Traffic Controls (STC) provides solar-powered traffic control systems for city, state and federal DOTs; police, firefighting and public works departments; facility maintenance and plant safety industries. Our primary products are solar-powered flashing beacon systems used for school zones and 24-hour applications. We also supply specialized flasher systems using environmental sensors and custom communications packages to control the flashing beacon systems. Our product spectrum also includes wireless power systems for ITS, EMS and HAR. STC's products and services are sold through a network of regional distributors who offer technical support for your project.

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