

Customer Motivation:

Seeking an ultra-reliable solution to power an intermediate signal in a flood-prone stretch of track along the Mississippi River.

Solar Power System

The R1060 Solar Power System was designed using high quality components and combined in a manner to ensure proper battery charging under the range of expected on-site conditions and customer loads of . The system features our patented 20' RP Series Retractable Mast which allows personnel to raise and lower the solar array for safe and convenient installation, maintenance and troubleshooting.

Batteries

The system battery bank consists of (3) parallel strings of (20) cells of Saft Sunica.plus 760AH Ni-Cd Batteries. Batteries are housed inside the Equipment House and Battery Box. The Batteries are sized to handle 15 no-sun days.

Battery Box

A 56"L x 56"W x 24"H All-Welded Aluminum Battery Box provides excellent year-round protection for the system batteries. The Battery Box features fully insulated paneling, pre-fitted conduit access and a tamper resistant lockable lid.

Wind Generator

Primus Windpower's Air30 400W Wind Generator provides supplemental power to the overall system during periods of inclement weather. The Wind Generator extends above the Solar Array to access the best local wind conditions.

Solid Oxide Fuel Cell

The Ultra-USSI P250i Solid Oxide Fuel Cell provides extended run backup power protection to the Solar Power System during periods of insufficient sunlight. Powered by propane, the P250i sits in standby mode until the batteries dip below a certain pre-determined threshold voltage. After a 25-30 minute startup, the P250i will charge the batteries and power the load. The Fuel Cell Enclosure is mounted on the raised platform to protect against flooding prone to the area.



RP Series Retractable Mast w/Wind Generator Adaptor



Battery Box



P250i Fuel Cell



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