

# RAILROAD SOLAR

REMOTE SOLAR POWER SYSTEMS

Intermediate Signal Installation  
1440 Watt Solar Array, 40 Watt Wind Hybrid, 20 Day Reserve  
Northern Illinois



THE NEW VALUE FRONTIER



# SOLAR POWER RAILROAD SYSTEM SOLUTION



Control Point  
2400 Watt Solar Array  
15 Day Reserve  
Northern Utah

RAILROAD SOLAR is Kyocera Solar Inc.'s solution to providing solar electric power systems for railroad applications. As a pioneer in solar technology, Kyocera has been actively engaged for the past 30 years in the research and development of solar power, from developing new materials and devices to designing new products and systems.

Kyocera Solar, Inc. specializes in pre-installation design assistance. This ensures the solar power supply is properly designed and installed to deliver years of top level performance and low cost, low maintenance service.

With over 20 years of servicing the railroad industry, the Kyocera Solar team is dedicated to providing the very best solution to your railroad installation. Supplying fully engineered, highly reliable, low cost power systems for a wide variety of applications, a Kyocera Solar power system is the answer to your remote power needs.

**SOLAR** by KYOCERA



Highway Crossing Installation  
1440 Watt Solar Array  
400 Watt Wind Hybrid  
Generator Back-up  
15 Day Reserve  
Southern California

## COMPLETE SYSTEM SOLUTIONS

Kyocera Solar, Inc.'s RAILROAD SOLAR, an application of Kyocera's remote solar power systems, is designed to meet the unique demands of the railroad industry. Each system is designed for site specific installation requirements.

All systems are extremely durable and secure, and include rugged theft-resistant mounting hardware for the photovoltaic array. Kyocera specializes in *fully integrated equipment shelters and hybrid system design*. Custom application and higher voltage systems are also available.

Kyocera Solar, Inc. offers in-house training to support your design/engineering team efforts. With standard system packages, your engineering team can quickly select and specify a Kyocera Solar, Inc. system package.

## APPLICATIONS

- Wayside Signaling
- Intermediate / Approach Lit Signals
- Repeater Locations
- Hot Box Detectors
- Grade Crossings
- Telecommunication Power Supplies
- Control Points
- Electric Switch Locks
- AEI Equipment
- Dragging Equipment Detectors
- Railcar Solar Power Supplies
- Switch Machines
- 2-Volt Track Circuit Systems and Controllers
- Primary Battery Replacement

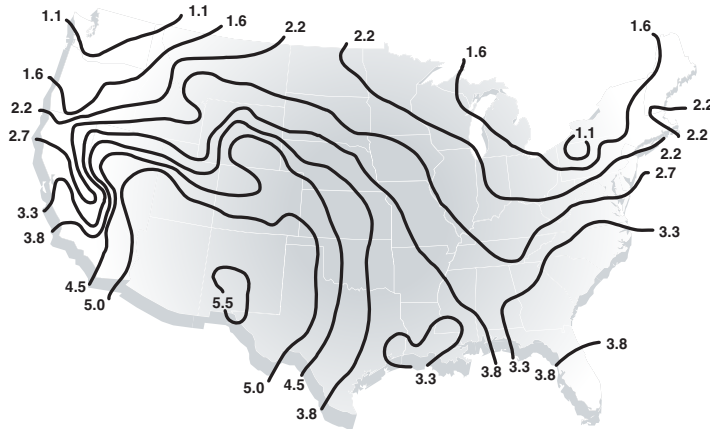
# RAILROAD SOLAR

## Estimating Procedure

Track Circuit  
 10 Watt , 2-Volt  
 30 Day Reserve  
 Northern Nevada



### Sunlight Map



#### Instructions:

1. Identify installation site on the sunlight map above and determine the Peak Sunlight hours.
2. Calculate your daily load in Amp Hours.
3. Cross-reference the Load Current with the Peak Sunlight hours in the chart below, then select your system type.
4. Contact Kyocera Solar, Inc. for pricing.

# RAILROAD SOLAR

## Sizing Matrix

Total Daily Load AHrs	PEAK SUNLIGHT HOURS (from map)							
	1.1	1.6	2.2	2.7	3.3	3.8	4.5	5.0
25	D	C	B	B	B	A	A	A
50	F	E	D	D	C	B	B	B
75	J	H	F	E	D	D	C	C
100	K	J	H	F	E	E	D	D
125	J	K	I	H	G	F	E	D
150	L	K	J	I	H	G	F	E



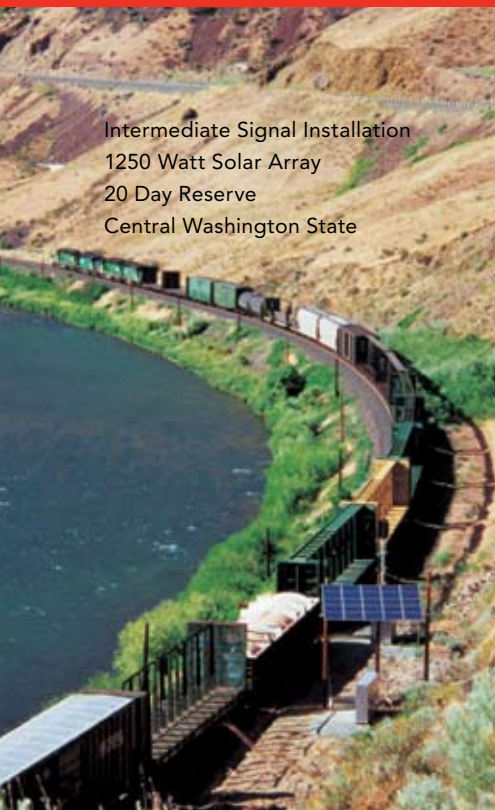
RR Intermediate Signal Installation  
720 Watt Solar Array / Wind Hybrid  
Generator Back-up  
Southern Washington State

## KYOCERA SOLAR, INC. CAPABILITIES

Kyocera Solar, Inc. offers comprehensive dealer support packages including customized engineering, proactive service and sales support, extensive training and a variety of field services.

## FEATURES

- Site Survey Analysis (before & after installation)
- CAD Sizing (Stand Alone and Hybrid)
- Complete System Installation Kits/Packages
- Thorough Documentation and O&M Manuals
- Telephone/HDG Steel/Aluminum Pole Mounting System
- Factory Calibrated Charge Regulation



Intermediate Signal Installation  
1250 Watt Solar Array  
20 Day Reserve  
Central Washington State

THE NEW VALUE FRONTIER



**KYOCERA Solar, Inc.**  
800-223-9580 toll-free  
800-523-2329 fax  
[www.kyocerasolar.com](http://www.kyocerasolar.com)

*Represented by:*  
**TRANSPORTATION PRODUCTS SALES CO.**  
618 Cepi Drive, Suite B  
Chesterfield, MO 53005  
Phone: 636-532-1144  
Fax: 636-532-1482  
Email: [cgillette@tpsc-arms.com](mailto:cgillette@tpsc-arms.com)