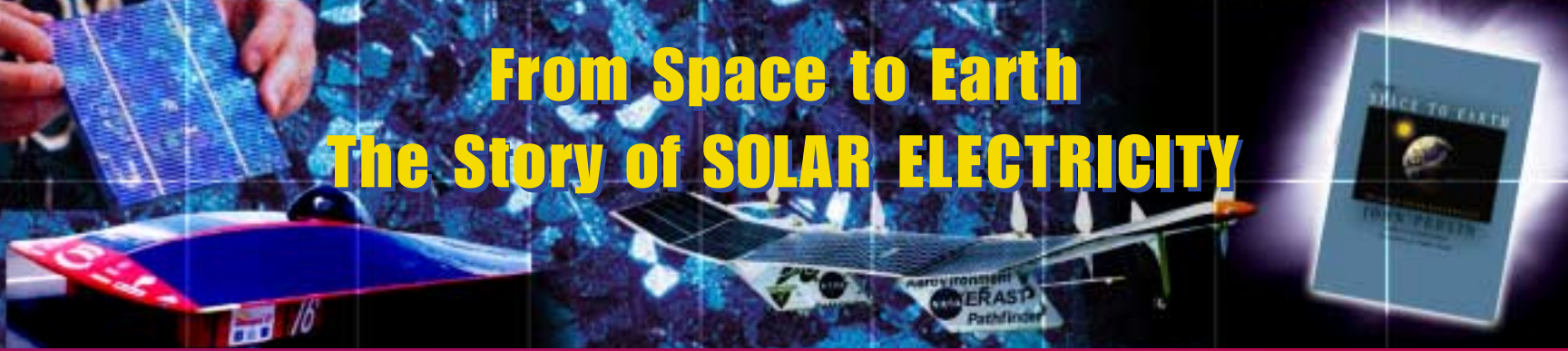


# From Space to Earth The Story of SOLAR ELECTRICITY



## Working on the Railroad

Thanks to advances in communication technology, railroads no longer need telephone lines and poles along railway tracks, though signaling and switching devices necessary for track safety still need power.

Transporting that electricity from the closest utility lines, once those following the tracks have been taken down, can cost tens of thousands of dollars. Solar panels will do the same job for far less.



Courtesy of GE Transportation Global Signaling

## Photovoltaics in Everyday Life

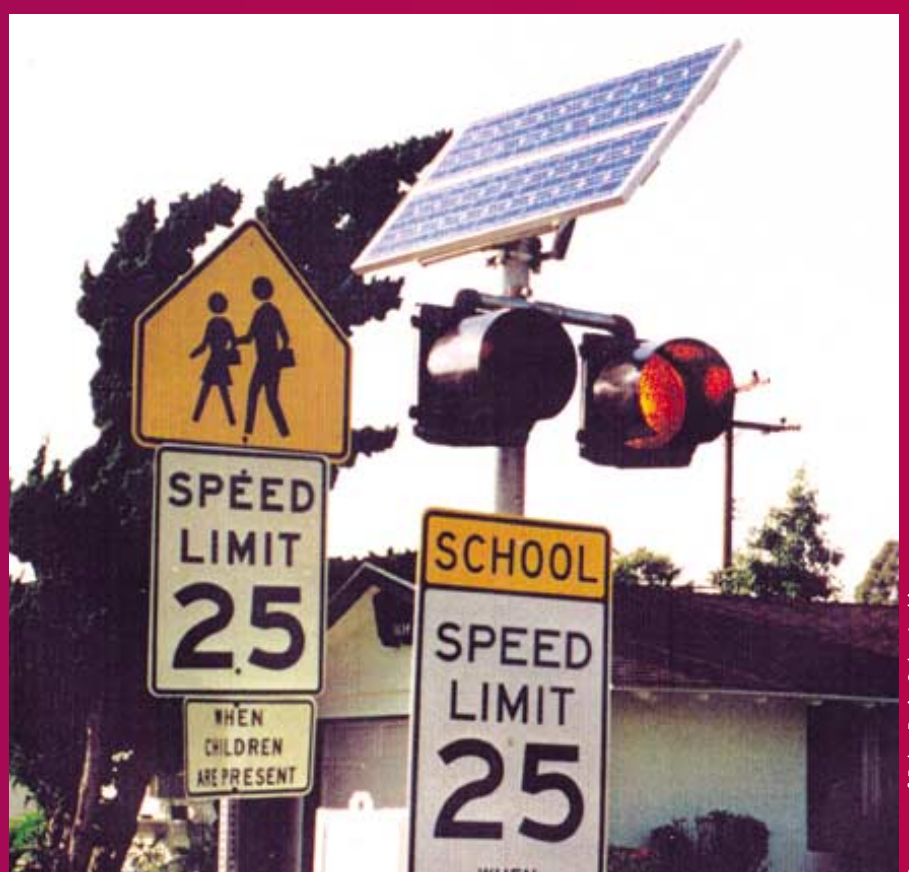
Even when the utility lines stand a few feet away, photovoltaics prove more cost effective than digging up pavement and/or sidewalks to cable in newly installed emergency call boxes, flashing warning lights, illuminated bus shelters, or any other devices requiring power.



Courtesy of John Thornton



Courtesy of John Perlin Solar Archives



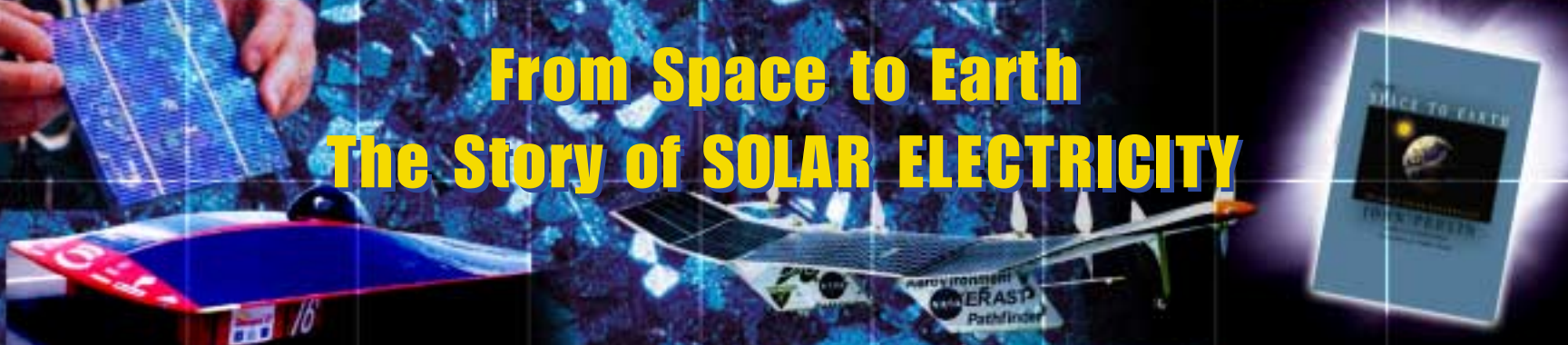
Courtesy of John Perlin Solar Archives

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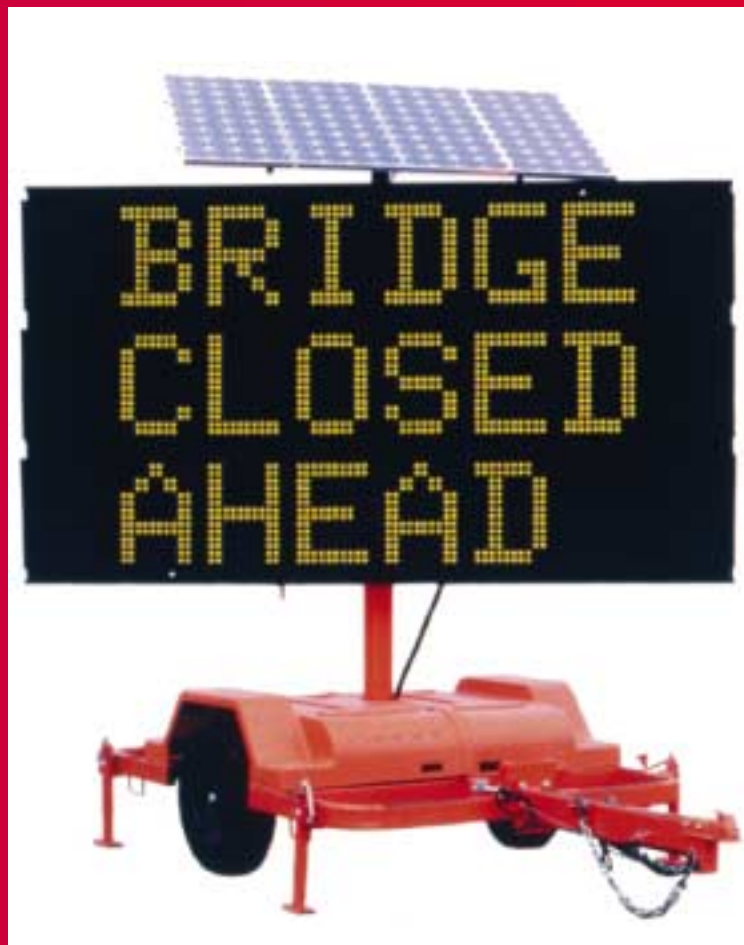


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## Photovoltaics in Everyday Life (continued)

It didn't make headlines. But all those mobile road signs, the ones on trailers that tell you, "Slow Down to 40 MPH," or "Caution: Lane Closed Ahead," or warn you about other temporary road problems, have changed from diesel to photovoltaics thanks to the development of light emitting diodes (LEDs), a lighting technology requiring very little power.



Courtesy of John Perlin Solar Archives



*Mt. Everest Expedition – Nepal*

When disaster strikes, the electrical infrastructure many times collapses, leaving entire regions without power. Emergency personnel can quickly carry in ultra light solar panels, and set them up in minutes to reestablish electricity for vital needs.

## Bringing Electricity to Those Without

About 2½ billion people live without access to electricity. Unlike utility power that requires years for the generating plant and distribution lines to go up, solar electric panels providing decades of electricity can be immediately dispatched to the point of need by animal or vehicle and be up and running in a matter of hours.

Courtesy of Shell Solar



*Niger*



*Dominican Republic*

Courtesy of Soluz

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Courtesy of John Perlin Solar Archives

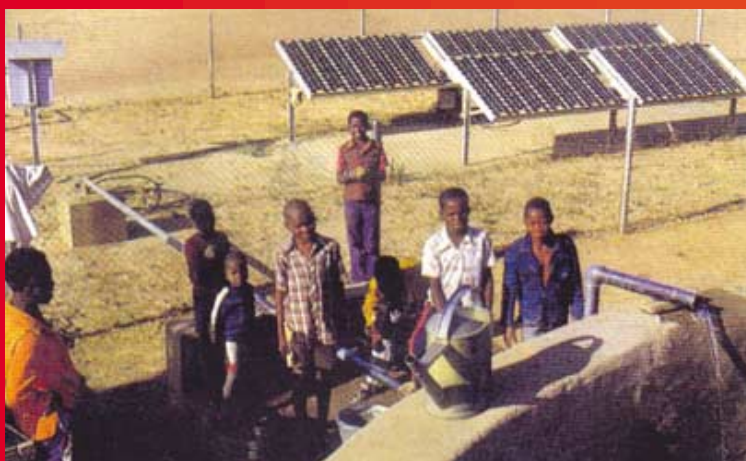


## Bringing Electricity to those Without (continued)

Photovoltaics brings many benefits to those who have lived without electricity. In 1976 the French introduced the first working photovoltaic pump. Since then, tens of thousands of such pumps have provided people with safe, clean water as well as water for livestock.

*The first working solar pump in Corsica in 1976.*

Courtesy of John Perlin Solar Archives



*Photovoltaics bring water to drought-stricken Mali, Africa.*

*Mali, Africa.*

Courtesy of John Perlin Solar Archives

Solar home systems bring high-quality lighting to those formerly without. The introduction of high-quality lighting raises grades by 60% and more effectively reduces birth rates than contraception campaigns.

Courtesy of Shell Solar



*Mongolia*



*Kenya*

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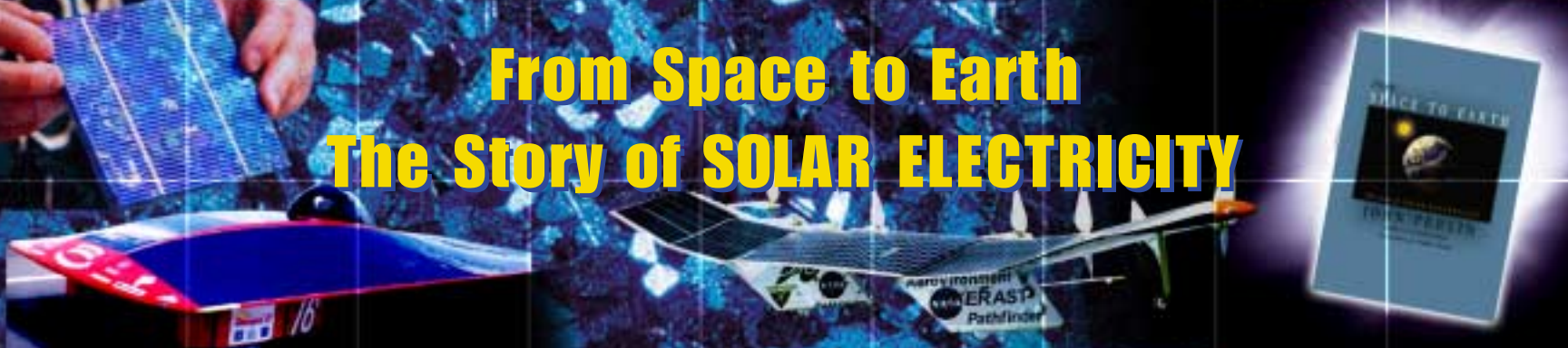
*Kenya*

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# From Space to Earth The Story of SOLAR ELECTRICITY



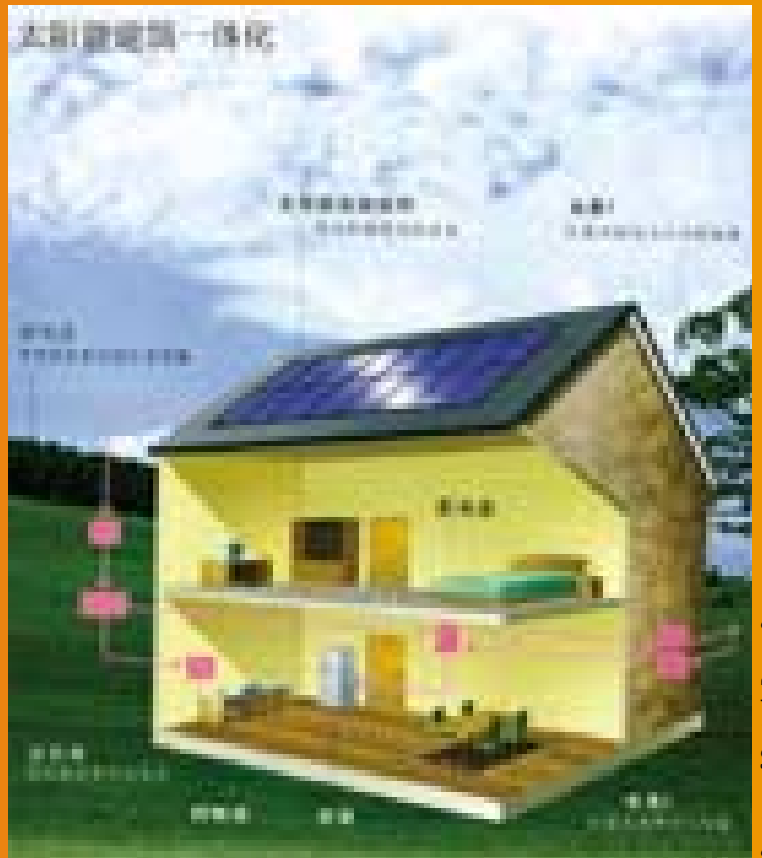
## Bringing Electricity to those Without (continued)

No matter what language people speak, solar modules translate into a better life for those who had previously lived without electricity.

Courtesy of SELCO



Courtesy of Soluz



Courtesy of Suntech Power Co.

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ಸುಯೇನಿಂಧ ವಿದ್ಯುತ್

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