

## INDUSTRY SPOTLIGHT

### Construction Equipment

The construction industry is an ideal market for PulseTech products. Heavy equipment such as excavators, motor graders, power shovels, asphalt pavers and others are essential on the job site and batteries are required, but battery problems are very common.



The equipment will be used constantly or sit for extended periods. When it sits, lead-sulfation occurs even faster than when it is used all the time. To prevent these time-consuming and potentially expensive problems, many construction companies use our ReNew-IT Pulse Technology® like the Industrial 12-Volt Solargizer (735X130) and 24-Volt Solargizer (735X200).



## TESTIMONIAL

"As a happy user for almost six years, I think PowerPulse units are essential...After installing my units, I noticed improved performance almost immediately. Their claim of increased battery life in my opinion is substantial...these units, with proper care and maintenance, makes batteries far less of a weak link in an alternative energy system."

David Bawden  
Freelance Writer  
Delia, Kansas

## SUCCESS STORY

# PowerPulse Helps Cabin Batteries Provide Full Power

Larry Sunnell has been using PulseTech Products for several years now. One application is his cabin on the Pasayten River near Manning Park, B.C. in Canada. The house is powered entirely by a battery bank charged by two large solar panels on the roof. He and his family use the cabin for only two weeks every Christmas which means the batteries sit unused the rest of the year. Normally that would be a major problem, but not with the PowerPulse® Battery Maintenance System.

**PROBLEM:** Lead-acid batteries that sit unused for extended periods will ultimately suffer from damaging sulfation buildup (*lead-sulfate deposits on the plates*). As a result, the batteries will have to be recharged constantly or even replaced. This was the time-consuming and costly problem Larry had with his batteries on a regular basis.

**SOLUTION:** In 1997, Larry installed PowerPulse units on the battery bank. Since PowerPulse helps keep their plates clean, batteries are always able to accept, store and release a full charge.

**RESULTS:** Larry uses the cabin for two weeks each year and never comes close to running out of power. In fact, one time, as a test, he isolated four golf cart batteries in the bank and used them to power a six-amp pump motor on his hot tub. Even after running the motor for three full days, the batteries still had plenty of energy.

Six years ago, friends using the cabin discharged the batteries to a point where they actually froze. Normally that could damage the batteries, but, thanks to the PowerPulse units, Larry was able to recharge the batter-



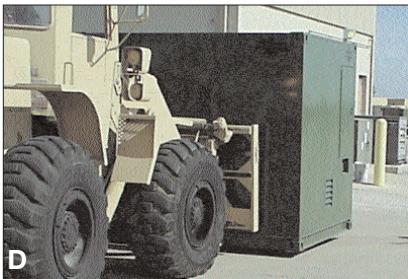
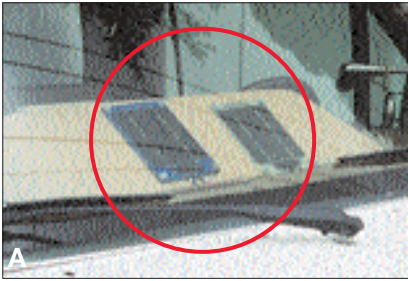
(Top) Larry Sunnell uses two large solar panels to charge the battery bank (below left) on his cabin in Canada. A set of PowerPulse units (below right) helps keep the batteries clean so they can accept, store and release a full charge all the time.

ies once again. He is still using those same batteries today.

He also hasn't had to add water to any of the batteries over the last year and a half. When sulfation buildup occurs in a battery, more and more sulfates attach to the plates and the water level increases in the electrolyte. The water will then evaporate and have to be replaced. But PowerPulse keeps that from happening.

**LEARN MORE:** See your local PulseTech dealer to see how our products can help increase your battery reliability. For a dealer near you, call **1-800-580-7554**. Or visit **www.pulsetech.net**.

## SAMPLE INSTALLS



Installing PulseTech products is easy and well worth the time. Shown above are examples of actual customer installations:

- A. Two 24-Volt Solargizers (735X150) installed on a police S.W.A.T. vehicle.
- B. Pulse Chargers (746X725) recovering 12-volt batteries in a large maintenance facility.
- C. A 24-Volt Solargizer (735X150) solar panel mounted on a large commercial combine.
- D. The Mobile Battery Shop (730X901), a mobile battery maintenance facility with PulseTech products, being positioned on a military base.

## TECHTALK FAQ

Presenting a series of frequently-asked questions regarding the benefits of PulseTech products and how they can help your customers:

### What is the difference between the RediPulse®, PowerPulse® and Solargizer® battery performance systems?

The main difference between these systems is the power source each uses. RediPulse is powered by a specially-designed 110-volt ac adapter (220 volt is also available). It is designed for vehicles kept indoors or in areas without access to sunlight.

Solargizer uses a solar panel to convert sunlight into electrical power. It's designed for vehicles used or stored outdoors. The Receptacle versions of the 24- and 36-Volt Solargizer systems have a solar panel and a 110-volt ac adapter (220 volt is also available). It can be used on vehicles and equipment used outdoors and stored indoors.

PowerPulse is actually powered by the battery itself. There's nothing to plug in. You just attach it to the battery and it works automatically twenty-four hours a day. It's ideal for vehicles and equipment that are used frequently or charged on a regular basis.

### Can these products overcome a battery's internal resistance?

The internal resistance within a battery is a

function of the electro-chemical reaction that is taking place. You would not want to interfere with this as it is part of the energy transfer process. However, you would want to offset the negative impact of this process which is exactly what ReNew-IT Pulse Technology accomplishes.

By using RediPulse, PowerPulse and Solargizer to desulfate a battery on a daily basis, the battery will perform better, be more dependable and have more available energy for your use. It will also last up to three times longer.

### Will they hold up on day-to-day usage?

Absolutely! One of the reasons PulseTech first took this revolutionary technology to the commercial and military markets many years ago was to verify the durability of the product.

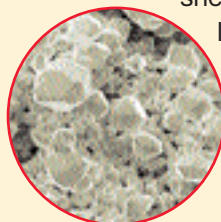
Because of our patented design and proprietary manufacturing process, our products are as durable, if not more so, than the vehicle or piece of equipment you are mounting them on.

This exceptional durability is also why we gave the RediPulse, PowerPulse and Solargizer systems limited product warranties that last for years. 🇺🇸

## Scientifically-Proven Technology

Independent studies by researchers at Oakland University and Ohio State University recently confirmed that ReNew-It Pulse Technology increases battery efficiency and battery life dramatically. These two-year studies showed that our technology allowed a more even distribution of lead-sulfate crystals over the surface area of the battery plates. It also revealed a significant reduction in the size of crystals. These changes greatly improve a battery's ability to store and provide energy.

Our technology also prevents sulfate-induced corrosion that is the primary cause of shedding of active material on the plates. As a result, the life span of the battery is increased dramatically.



*(Left) A battery plate covered in heavy sulfation buildup which reduces the battery's ability to accept, store and release energy. (Right) ReNew-It Pulse Technology™ cleans these lead-sulfate deposits off the plates and converts them to active electrolyte. This process exposes the active material on the battery plates which means batteries are stronger so you get up to three times longer life and maximum performance.*



Visit this local PulseTech dealer today: