



BATTERY MONITORING SYSTEM CUSTOMER TESTIMONIALS

Consumers Energy Co
Jackson, Michigan 49201

We are an Electric and Gas Utility in the State of Michigan. We have more than 6 million customers state wide. In 1995, three years after installing 450 KVA of UPS equipment to protect the operation of Consumers Energy's Corporate Computer System we suffered three individual battery failures that interrupted computer operations at critical moments. The interruptions came during storms when our systems are most taxed for support of storm related power outages. Nearly four hours of down time was experienced on the automated Trouble Analysis System which monitors operating systems, prints work orders for outage restoration and handles more than 10,000 calls per hour during each interruption. The batteries were at fault and quarterly checks of the batteries failed to recognize the potential for battery failure or predict their early demise.

We investigated a number of battery monitoring systems and found B-Tech to be the only system that did not perform constant load tests on the batteries which shortens battery life by testing alone. In 1995 we purchased the B-Tech monitoring system for each of 5 UPS units with more than 300 batteries in the system for corporate offices here in Jackson Michigan. Since their installation we have not had one battery related outage of an operating UPS unit. In fact, we have not had any outages in more than 150 power surges, spikes, and interruptions of service in the last 8 years.

The B-Tech system has fore warned of more than 30 potential battery failures allowing us to replace batteries before they fail. The B-Tech system has also extended our use of battery strings as well. Knowing how the batteries are performing late in their life allows us to replace entire strings at less frequent intervals.

The only way to know how your batteries are performing is to monitor their performance on weekly basis. B-Tech has provided flawless service in maintaining our battery back-up systems. It allows us to provide immediate support to our customers when storm outages occur and seamless operation of our computer support systems.

Ken D. Rheault

Ken Rheault
Sr. Technical Analyst
Member ASHRAE
Member AEE

Certifications:

Certified Energy Manager, CEM
Certified Indoor Air Quality Professional, CIAQP



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Florida Department of Law Enforcement
Rick Faircloth
Data Processing Consultant

March 13, 1993... I remember it very well. We dropped our entire load on one of our two fully loaded 300kva UPS systems. We called in our u.p.s. maintenance provider and wanted an explanation of why we dropped the load and why didn't he discover a problem just 3 weeks earlier during the p.m. of the UPS Systems. After doing some checking, he advised us that the u.p.s. was fine, but we had serious battery backup problems. As you also may remember hearing from your u.p.s. maintenance provider, "he does not perform battery maintenance as part of the u.p.s. maintenance" and if you want your batteries checked out, you will need to contract with a battery maintenance provider. That was always a huge frustration because a u.p.s. is basically nothing without a good battery backup.

Needless to say, management was not too happy to be hit with a "surprise" purchase request for 240 batteries (plus installation) at the end of our fiscal year. On 6/30/94, life changed. We installed BTECH's Battery Validation System. Since that date, I have not had to "wonder" about the health of each individual battery. We are now on our third set of VRLA batteries since that last failure in 1993. The BTECH does not make the batteries last any longer, but it lets you know when they are getting unhealthy and that you better start taking some action. We have also used data gathered to assist with discussions of utility power quality and battery replacement warrant. I review the test data each week. When hurricane season or one of those "pleasant" Florida thunderstorms comes around, I honestly do not worry about the batteries. Instead of not really knowing how healthy they are, I've got data that tells me their present condition. I realize there are other factors that can cause load failure, but to eliminate the batteries means one less worry.

We have been very pleased with the product's hardware, software and support. The folks at Btech are very good at giving support to customers, no matter what the customer's level of expertise in battery backup may be. BTECH support knows their product extremely well.

**Robert Wood Johnson University Hospital
New Brunswick, New Jersey**

Robert Wood Johnson University Hospital is one of the nations leading academic health care centers and at the forefront of medical research. Robert Wood Johnson University Hospital is a leader in finding medical breakthroughs and utilizes the latest advances in medicine and patient care to treat over 100,000 patients a year

My department is responsible for ensuring the operation of vital facilities at the hospital. To avoid the impact of devastating blackouts, we employ the use of Backup Power Supply Systems. Since backup power systems rely on backup batteries, which can fail with no notice, we employ BTECH Battery Monitoring Systems. BTECH identifies any developing battery problems that otherwise would go undetected. In this way we can proactively make needed battery substitutions and drastically reduce our risk of experiencing a power outage.

**Mr. Darayes Bharda
Technical Supervisor****ADP
Roseland, New Jersey**

"Eleven years ago, we installed our first BTECH Battery Monitoring System, which promptly found a battery string that would fail open. Since then, we've installed over 30 BTECH systems nationwide for our critical UPS installations. The BTECH systems have proven to greatly reduce battery maintenance costs, extend the life of the batteries and virtually eliminate battery failure by being able to predict precisely which cells need to be replaced in advance. Based on our experience, I highly recommend BTECH Battery Monitoring Systems"

**Samy Alim
Manager of Engineering**

**Multnomah County Facilities
Portland, Oregon**

Multnomah County is geographically the smallest in Oregon but contains approximately 20% of the states population. The Multnomah County Government serves the needs of approximately 700,000 people in an area that covers 465 square miles.

My department is responsible for ensuring the continuing operation of several vital county facilities including a facility where life safety is a prime factor. To avoid the risk of surprise blackouts due to problems with the power grid or weather related causes we have employed the use of Uninterruptible Power Supply systems.

Uninterruptible Power Supply systems completely depend on simple and unpredictable backup batteries to work. Given the mission critical nature of the applications we support, we investigated battery-monitoring systems to virtually eliminate our risks of a complete and catastrophic power outage due to unforeseen backup battery failure.

We looked at several models and found only BTECHs patented technology could warn us of developing battery problems without the use of stressful battery load testing. This is a significant advantage because load testing actually reduces the life of the backup batteries.

BTECH not only reduces our backup battery failure risk, but saves the county money by eliminating the need to blindly change out all 600 backup batteries on a strictly calendar basis. With BTECH is on the job 365 days a year, we can identify and change only the deteriorating batteries which saves us time, money and makes us much more secure

I couldn't explain to the people of Multnomah County how to insure our continued operation during the next power failure until we found BTECH. Now I have an answer.

**Robert D. Novak
Electrical Supervisor**