MANAGED BATTERY MONITORING

Critical Power System Reliability

- Preventative maintenance program enhancement.
- Real-time battery measurements and historical trending metrics.
- Acquisition, analysis, and notification services.
- Patented real-time monitoring system detects signs of battery degradation including conditions that cause Thermal Runaway.
- Measures battery string voltage; float, discharge, recharge current; ambient and battery temperature.
- Applicable to any battery chemistry from 12v to 300v

Hands-Free Monitoring

- Focus on your core business.
- Reduce capital expenditures. No customer infrastructure required - just an internet connection over Cat-5, Wi-Fi, or Cellular.
- Installed, administered and maintained by Battery Research Inc. - No user configuration or administration required.
- Systems monitored around the clock by our analysis servers. Accessible by our knowledgeable battery personnel.
- Non intrusive; installed without taking battery offline.

Globalization

- Data acquisition and analysis on a local to global scale.
- Improve system visibility with a low cost - high value solution.
- Suitable for all applications - from local single system users to users responsible for many systems over a wide geographical area.
- Scale as needed.

We centrally monitor your battery systems
You focus on your core business

Lower Implementation Costs

- No personnel training is needed - compared to monitoring in-house.
- Improve project management - dispatch technicians only when necessary.
- Predict expenses to fit budgeting cycles, assist with replacement planning and personnel deployment.
- Zero installation cost when combined with a PM program.

Data Acquisition/Analysis/Notification

- Immediate notifications of detected problems.
- Monthly trending reports.
- Centralized data mining and aggregation.
- Not just an indication that further evaluation is necessary but an analysis based on trending and history.
- Minimize nuisance alarms from false positives and borderline conditions.
- View battery metrics across time and/or across systems.

Desktop	Web	Mobile
Presentation		
Administration		
Analysis		Notification
Analysis Services		
Acquisition		Database
Acquisition Services		
12v	48v	>48v
Hardware		

Resiliency and Redundancy

- Cloud based - Sensors As A Service.
- Secure - one way data flow from site. Safer than getting email or browsing the Internet from the site.
- No site identifiable information is transmitted.
- Cloud infrastructure utilizes the highest standards in physical security and continuous backup.

Technical Specifications

Battery Voltage
Range: 9-300 Vdc
Resolution: .1 Vdc
Accuracy: .1% (±.1 Vdc)

Battery Temperature
Range: 0 - 60 °C
Resolution: .1 °C
Accuracy: ± .2C

Float Current
Range: .1 to 10 Adc
Resolution: .1 Adc
Accuracy: 2% fs

Ambient Temperature
Range: 0 - 60 °C
Resolution: .1 °C
Accuracy: ± .2C

Discharge/Recharge Current
Range: ≈400 Adc
Resolution: .1 Adc
Accuracy: 1.5% fs

Total System Latency
< 10 sec.

Remote monitoring cannot completely eliminate the need for ongoing hands-on maintenance yet provides crucial information between maintenance visits

All for about a dollar a day