



The Interrogator - the latest word in battery monitoring

Issue: October 2003 - 1 October 2003

Announcing a breakthrough in battery monitoring and analysis, World Energy Labs (WEL) has launched the Interrogator H model, a new, portable all-in-one battery monitoring/test system.

WEL, a US-based company that focuses on the scientific development of technologies in the stored energy sector, will make the Interrogator commercially available in January 2004. It hopes that the Interrogator H model will completely change the way in which companies and engineers monitor the state-of-health and state-of-charge of industrial batteries and battery banks.

The Interrogator H model came about as a result of WEL's experience in providing consulting services for battery applications in the satellite industry, where back-up power is vital. This technology was first developed to meet the needs of battery monitoring in space and a number of years were spent making the same technology affordable for maintenance teams working with general industrial batteries.

At the first Batteries International conference in Duesseldorf on September 29th to 30th, Sean Salloux from WEL and Dave Smith, CEO of Cellcare Technologies, WEL's European business development partner, gave a demonstration of the Interrogator H model.

By applying a series of patented test signals to a cell or bloc, the Interrogator can immediately determine the exact state-of-health and state-of-charge of any cell, whether under load, fully discharged or in service. Other key health parameters the unit reports on are: impedance/conductance, grid corrosion, plate sulfation, identification of post seal problems, identification of post corrosion problems and of course cell/block voltage.

The tests are all non-invasive and WEL says that results are delivered within 3 to 5 seconds. The information can also be downloaded to a PC or network. The Interrogator's software has been designed to allow for new software and algorithms to be simply uploaded making the product open-ended as manufactures add new cell models. WEL has designed the Interrogator for use on any battery size and the test leads can be connected to either battery post, as battery polarity is sensed and adjustments made before any testing is carried out.

WEL also claims the Interrogator will make a major cost saving for those companies who invest in the device. The ability to accurately predict failure, as well as identify the failure mechanisms and provide this information to maintenance crews in real time, removes the need to replace batteries entirely based on age. This will allow companies to effectively and responsibly extend the useful life of their battery banks. Other sources of operational savings include decreased labour costs through the ability to obtain rapid, conclusive measurements of cells without historic trend data and with less technical expertise required within maintenance crews.

This could save up to 50% of total battery maintenance and replacement costs. These savings apply to companies in markets ranging from mobile and landline telecommunications, utilities, hospitals, railways, ISPs, data centres and financial institutions - in fact anywhere where there are mission-critical back-up batteries. Interesting applications opportunities are also being developed in the areas of quality control for battery manufacturing, automotive applications and remote monitoring of geographically distant sites, such as telecoms towers, rail networks and oil platforms.

In theory, the technology sounds almost too good to be true. However, what about in the real world? To

date, WEL has been able to obtain field data that clearly demonstrates the precision of this new technology and during this last quarter of 2003, WEL will be obtaining a much larger sample of field data through its beta test program.

Some of the largest users of industrial back-up batteries in the US, Latin America, Europe and Asia have been chosen to test the product. These anonymous 'beta partners' include international mobile telecom companies, power generation companies, utilities, hospitals and financial trading exchanges. This international testing process will enable WEL to perfect any inaccuracies that may occur when working with industrial batteries in different operating environments. These beta tests are being deployed under strict non-disclosure agreements, but the general results, however, will be used to ensure the Interrogator is suitable for the range of battery environments in which the product has been designed to operate.

For its part, Cellcare Technologies will be assisting WEL in the development of the European market for the Interrogator. Both companies are enthusiastic about the great deal of interest that the market is already showing in this new technology. The high level of interest in obtaining the technology is evident from communications held with WEL's various beta partners. Although several companies have already requested a priority status in receiving the first batch of market-ready devices, WEL emphasises that the beta test program will first be completed before any advanced purchase orders from customers are accepted.

Batteries International

To subscribe, tel: +44 (0) 20 7779 8999 **email:** hotline@euromoneyplc.com

Contact: +44 (0) 20 7779 8024/8639 **Fax:** +44 (0) 20 7779 8747

Nestor House, Playhouse Yard, London EC4V 5EX