Battery backup power monitoring helps to eliminate power failures thanks to IoT
A reliable battery backup supply is crucial. Batteries can fail for any number of reasons, but particularly if the battery relay is no longer sufficient to ensure proper operation. Usually, a backup power supply will be on-hand to pick up the strain if the main power source fails. But what happens if the backup battery has failed to? The result is a complete service breakdown that is only reported hours after it has happened. Disruptions are caused, customers are dissatisfied and maintenance crews need to be on-hand to fix the problem as quickly as possible. This typically means that maintenance crews need to be employed round the clock to ensure that if and when a failure happens, they can fix the issue as quickly as possible. It’s an unsatisfactory solution to a serious problem. But for many industries, the advent of the IoT has meant that it isn’t a problem any longer. With the help of IoT-powered remote monitoring devices, companies can monitor backup power supply like never before. Alerts are instant if the power fails and diagnostics are in-depth enough to allow maintenance teams to uncover the problem quickly.
With battery backup monitoring, companies reduce power failure risk, improve maintenance operations and reduce costs

Companies ensure backup power is always active

When both primary and backup power supplies fail, disaster is just around the corner. The problem is that maintenance crews are very rarely aware of issues with backup batteries until they occur. With remote monitoring, this is no longer an issue. If an issue with the backup power supply occurs, maintenance teams are notified instantly. This means that maintenance crews can carry out repairs before the backup battery is completely empty. Assuming timely maintenance, it should mean that critical systems always have the power they need.

All backup power solutions are visible from one dashboard

With wireless monitoring devices, maintenance crews don’t have to carry out regular maintenance work on all battery supplies whether they require repairs or not. They can now see the status of every single backup battery from a single dashboard on any of their devices. Scheduling maintenance work becomes significantly easier when you can see which devices need repairs and which don’t.

Maintenance operatives can conduct remote diagnosis

Maintenance crews can get all of the information they need from the cloud-based dashboard. All of the battery’s key data is transmitted to the cloud so that maintenance teams can see exactly what went wrong and conduct remote diagnostics before venturing onsite to carry out repairs. When the bulk of the detection work can be done online, costs are cut significantly and the time to repair is minimised.

Optimized maintenance

All of this means that maintenance crews can work far more efficiently. Because the status of all batteries is available at a glance from the online dashboard, crews can work out where their efforts are needed most. Remote diagnosis means they understand the issue before they get on site and so the time taken to repair the issue is cut drastically. Rather than taking a reactive approach to problems, wireless monitoring allows maintenance crews to become proactive, fixing issues before bigger problems arrive. In particular, by knowing how many cycles of charge and discharge a battery has been through, crews can anticipate its end of life and better predict how long the back-up power will remain available.
A remote device that gives maintenance operatives complete reassurance

The remote battery backup monitor can be installed on a range of batteries across a number of industries. Once connected, the device will instantly notify the client of any defect within the backup power supply via SMS, email and through the online dashboard. On top of this, it will also alert maintenance staff when there is a loss of main power and how long the power has been inactive. From the online dashboard, maintenance teams can gain an instant overview of all of their backup battery supplies and their conditions. Regular updates are to be made via the Sigfox network to ensure up-to-the-minute reports. But it’s not just alerts that are available from the online dashboard. The system also provides a detailed diagnosis should the power supply fail, as well as data on deep discharges and its end-of-life. The online dashboard is available on any device, including smartphones, tablets and laptops.

The device can be installed with relative ease in under 20 minutes. Three fixing models are available: rail DIN, industrial adhesive and plastic necklaces. Devices come pre-connected to Sigfox’s IoT network and initialization is automatic when the devices are paired.

As a result of the device, maintenance crews don’t have to wait for a breakdown to make repairs. They can take a proactive stance instead. Now, when maintenance teams get notified of issues, they can intervene with repairs before a service is disrupted. Service availability increases and so does customer satisfaction. Maintenance departments can make their entire service more efficient thanks to the data that the devices provide, understanding which backup power supplies may end first and why.

Nicolas Gorisek
Regional telecom maintenance unit manager
SNCF

"Thanks to Intesens we found a solution that meet our needs. As it relies on Sigfox network the deployment is fast. There is no need to invest in any infrastructure (dedicated communication equipment). This IoT solution can be used anywhere and everywhere and is excellent as a remote diagnostic tool for businesses. The life-span of these IoT devices through the Sigfox network is very long so we can have peace of mind as we can receive maintenance data and receive alerts when anomalies are detected. This makes it easy for us to manage, deploy and use anytime, anywhere. "
Sigfox enables backup battery monitoring through a global, secure and cost-effective network

The success of the device relies on Sigfox’s low power wide area network (LPWAN). Sigfox provides the world’s leading IoT connectivity solution which enables low power, low cost communication in over thirty countries across the globe.

Low power

The Sigfox network works by enabling connectivity by sending small messages at regular but infrequent intervals to the cloud. In doing so, the battery backup monitoring devices require very little energy consumption to communicate. This means that devices are capable of achieving remarkable and reliable battery life, which can last for up to five years.

Simplicity

Because the devices only require a connection to the Sigfox network, they become incredibly simple to install and operate. With the Sigfox network, the devices can be shipped pre-connected with no other connection or installation software required. They become a plug and play solution that will work constantly for several years.

Global coverage

The Sigfox network is available globally, including all major western economies. Wherever you need telecommunication backup power monitoring, the Sigfox network will be able to provide a reliable and secure connection. And, because Wi-Fi and Bluetooth networks are not required, the devices can be used in even the most remote locations.

Cost effectiveness

Sigfox provides a low cost connectivity solution to any company looking to improve their battery backup monitoring. The low power nature of network means that ongoing subscription costs can be kept to a minimum, while the devices enable a company to proactively monitor its communications and infrastructure systems remotely, seamlessly and efficiently.

Discover IDIAG Battery solution: partners.sigfox.com