SOSALEY

Battery Monitoring System

DAIRY PRODUCT MANUFACTURER

ABSTRACT

In this case study, it has been clearly explained how Sosaley's BMS aide a industry veteran dairy product manufacturer to carry out their seamless business operation without any production downtime. Sosaley's battery software takes a modular approach to battery monitoring that gives accurate information 24/7.

INTRODUCTION - CLIENT

One of the leading dairy product manufacturer who cater to both cooking and consumption, like milk, curd, ice creams, dairy whitener, skimmed milk powder, ghee, paneer and lots more.

Their brands have become a popular choice for households over one million across the country. They also have a healthy global presence with dairy ingredients exported to 38 countries around the world – primarily in America, the Middle East and South Asian markets.

PROBLEM STATEMENT

The dairy product manufacturer has to keep their process machineries turn on for 24/7 365 days. A few minutes halt of machine results in huge production loss. The manufacturer has some pain points in monitoring and maintaining the batteries such as:

- Personnel involved in monitoring the batteries manually.
- Difficult to identify the battery fault.
- Due to battery failure, unexpected power cut leads to productivity loss.
- Unplanned battery purchase and maintenance cost impacts surge in financial sheet.

ANALYSIS

Sosaley's top-to-bottom approach, identified all the potential problem area and provided a solution to the client. The approach examined the problem root cause in all perspectives like:

1. Checking the overall string voltage.
2. Internal Resistance (IR) of the battery. If it is high the battery is weak
3. Battery SoC trend.
4. Battery voltage of that faulty battery in charging and dis-charging cycles
5. To check the external factors like any cable damage, cable lose connection, etc.

SOLUTION

Our proven solution of BMS working principle relies on 3'C' pillar.

CONNECT

The BMS will take a modular approach once the device is connected with batteries. The industry specific sensors in battery module (fitted on the battery) will scan the condition of the batteries. The battery module will send all the potential data to the 'Master Controller' unit.

COLLECT

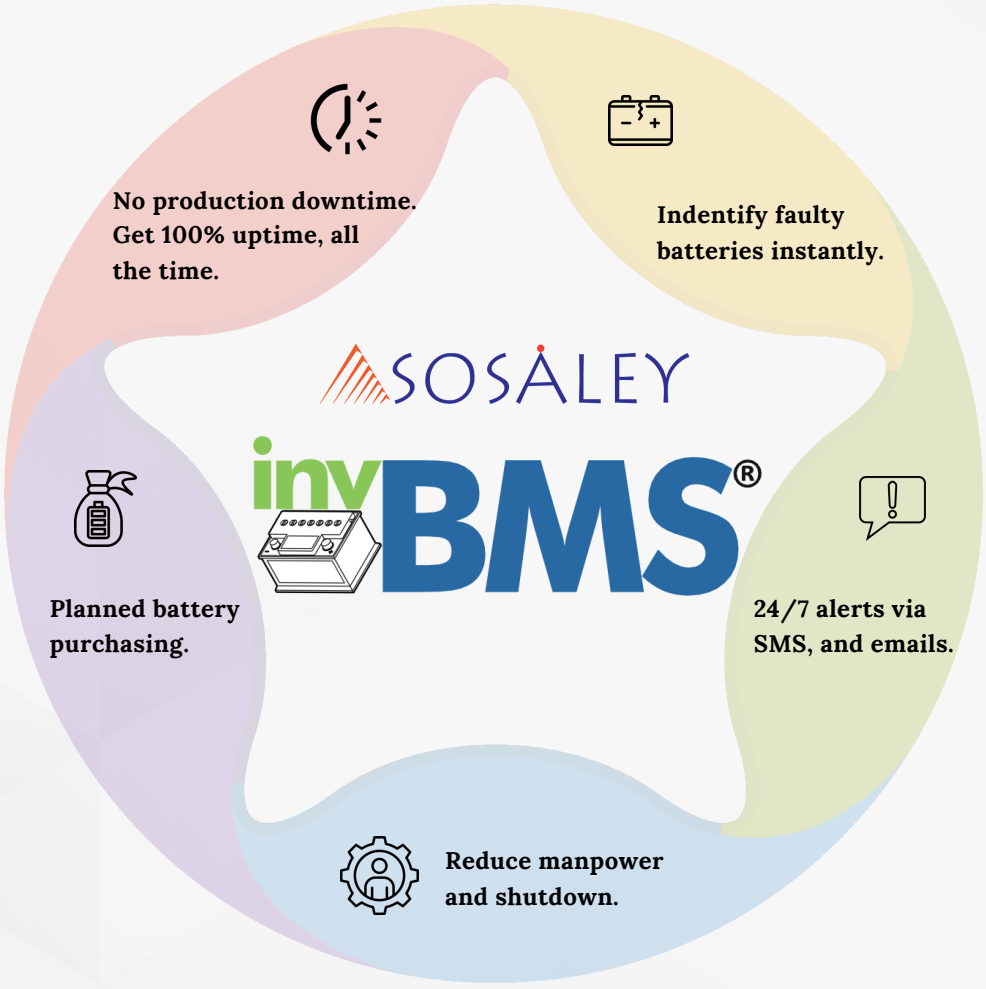
The master controller will then processes the data such as voltage, temperature, current, State of Charge (SOC), State of Health (SOH), and battery status. The master controller will handle up to 150 batteries without any lag. It is also capable of both wired and wireless communication protocols, as per the specific needs.

CONQUER

The BMS will take corrective actions on the fly based on 'What-If' analysis. Data comparison will occur over time periods and detects any leakages or shortcomings to improve quality, efficiency and productivity. By obtaining the battery data, proactive service can be rendered before it fails.

BENEFITS

After the installation of Sosaley's BMS, the client enjoyed factual benefits such as:



Become a industry specific leader and raise the standard in terms of delivery, quality and customer happiness with Sosaley's 'Battery Monitoring System'.