

## CASE STUDY

# Pinflow improves their redox flow batteries using Potentiostats, TEVOMETs and Cell Voltage Monitoring

Pinflow develops Energy storage systems with redox-flow technology and needed to test and improve their efficiency. They decided on **Potentiostat to measure EIS and improve performance and efficiency**. They chose **TEVOMETs** for temperature and voltage monitoring. **Cell Voltage Monitoring** was used to continuously monitor the operation of the entire system.

Pinflow energy storage, s.r.o. is developing and producing redox-flow batteries from very small laboratory batteries and pilot-scale batteries for other scientists and companies involved in redox-flow batteries research. Their largest batteries demonstrate the advantages of redox-flow technology in pilot industrial installations such as non-flammability, high cycle load up to 15000 cycles or full recyclability of electrolyte in new systems. For this purpose, they need to perform a lot of electrochemical measurements of our batteries at different scale levels.

„We have been successfully cooperating with Kolibrík for several years. We have their broad portfolio of trusted devices for electrochemical testing, we are able to perform everything from very precise measurement of EIS or CV needed for our lab-scale research to complex testing of large batteries even including monitoring of voltage of each individual battery cell in our battery stack,“ comments Jaromír Pociďič, Product development manager at Pinflow.



Cell voltage monitoring is an inexpensive characterization method, which can run under operation and without interruptions, providing real-time information about stack's health. While EIS analysis provides detailed characterization that allows the optimization and to improve the performance and efficiency of the system.



**Pinflow energy storage is developing new highly efficient batteries based on redox-flow technology.** Stacks with low internal resistance are built on know-how from New Technologies Research Centre at University of West Bohemia and are hearts of our batteries. With our laboratory products we also make research of redox-flow batteries easier.

## About Kolibrík

Kolibrík.net offers a complete range of electronic solutions and testing equipment for the hydrogen industry, specializing in H2 technology design, optimization, high-power fuel cell stack and electrolyzer testing, stack control system development, cell voltage monitoring, power conversion, and more.

[www.kolibrík.net](http://www.kolibrík.net)