

## CASE STUDY

# Cell Voltage Monitoring allows H-TEC SYSTEMS to extend lifetime of PEM electrolyzers

H-TEC SYSTEMS takes the quality of their system very seriously and pays high effort to ensure maximum lifetime of their electrolyser systems for their customers. This is why they decided to measure continuously each cell of all produced electrolyzers. **They have chosen Cell Voltage Monitoring from Kolibrík** which helps them to identify so-called critical operations, that could lead to damaging the whole electrolyzer, and react accordingly. This allows to protect the electrolyzer stack and to ensure its maximum lifetime.

H-TEC SYSTEMS wanted to design and build the ME450 electrolyzer. Each ME450 has an electrolysis capacity of 1 MW and can produce 450 kg of high-purity hydrogen per day. This means that in the space of just one standard 40-foot container, can be produced enough hydrogen to fuel 90 cars a day. With cell voltage monitoring support, the ME450 electrolyzer is reliable and the risk of early failure is minimized.

„We use Kolibrík’s Cell Voltage Monitoring system because of their accurate and reliable system. They are open to customization of their solution to meet our needs. They are flexible to meet our requirements and have a sufficient capacity to match our growing demands. They also provide excellent technical support,” evaluates the cooperation senior buyer Björn Wawrok.

Cell voltage monitoring is an inexpensive characterization method, which can run under operation and without interruptions, providing real-time information about electrolyzer stack’s health.



**Company H-TEC SYSTEMS specializes in hydrogen technology. They design and manufacture innovative PEM electrolyzers and stacks**, which enable the efficient and sustainable production of green hydrogen. H-TEC Systems GmbH is part of MAN Energy Solutions and contributes to the CO<sub>2</sub>-neutral transformation.

## About Kolibrík

Kolibrík.net offers a complete range of electronic solutions and testing equipment for the hydrogen industry, specializing in H<sub>2</sub> 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)