

## **Generator Monitoring**

How Energiequelle solved a damage in the generator

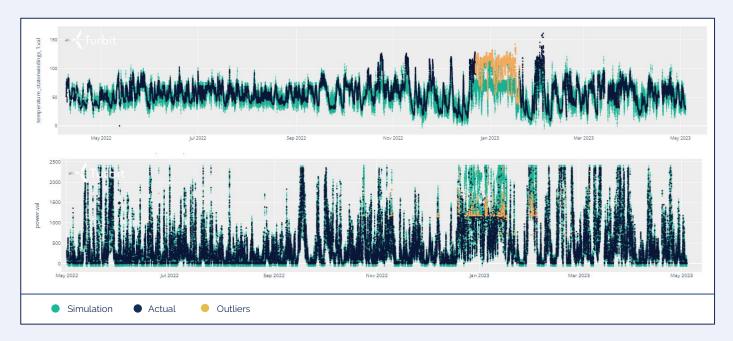
Reading Time: 2 Minutes

Turbit's alarm system enabled us to quickly identify and rectify an anomaly in our wind turbine, ensuring uninterrupted energy production.

Philipp Grytz - Energiequelle

## 1. Sudden change in Generator Temperatures

On October 24th, 2022, an initial temperature increase was detected in the stator windings of the generator of one of SAB's wind turbines under the operation of Energiequelle, indicating an alteration in the turbine behavior. Turbit's alarm system identified the anomaly and raised the alarm.



In addition, the turbine's output intermittently varied between 2300kW and 1185kW since October 24th and was continuously throttled to 1185kW from December 19th, 2022 on.

## 2. Collaboration and Problem Resolution

Energiequelle investigated the issues behind this anomaly and revealed that a malfunctioning frequency converter led to elevated temperatures. Energiequelle sent this analysis to the service partner, and the replacement of the faulty frequency converter was scheduled.

On February 7th, the Service Partner replaced the frequency converter. The temperatures returned to their normal range immediately after the converter exchange. No subsequent incidents have been reported and the turbine has been operating at rated power without any anomaly.

## 3. Successful Collaboration and Minimal Impact

Turbit's precise and timely alert facilitated early information on the issue. Energiequelle provided the service partner with a comprehensive analysis of the anomaly enabling an incident resolutions resolved within 3.5 months after its initial detection. During this time period, an energy loss of 137 MWh took place.

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