

FUTURE-PROOF PLANT OPERATION

with Jenbacher Monitoring-as-a-Service

Background

Modern plant control systems capture, process, and generate a seemingly overwhelming volume of data, which, at first glance, demands considerable expertise and time for analysis. For the operating personnel on site, this brings correspondingly great challenges. For this reason, automated analyses of the operating status and easy access to expert knowledge are increasingly becoming the focus of economically successful plant management, particularly in light of the growing scarcity of skilled workers.

Avacon Natur operates more than 300 energy plants with an electrical output of more than 44 megawatts, generating more than 330 gigawatt hours of heat and 190 gigawatt hours of electricity annually. The plants are using INNIO's Jenbacher myPlant Performance remote plant monitoring platform to provide real-time data for their operations. The high availability of Avacon's plants is further enhanced by an in-house team responsible for plant maintenance and repairs, ensuring exceptional service quality.

Solution

Working with Avacon Natur at its Salzwedel combined heat and power (CHP) plant, INNIO successfully completed a project for the automated, proactive use of plant data based on INNIO's digital myPlant Performance platform. The project resulted in the **Monitoring-as-a-Service (Maas)** concept.

New algorithms are analyzing data to enable the company to react quickly to changing trends or anomalies. INNIO's Jenbacher customer service representatives generate and proactively forward individual suggestions for solutions or improvements to Avacon. Jenbacher experts also are available for a comprehensive plant analysis, taking into account the complete engine history.

»INNIO's Jenbacher myPlant Performance platform and myPlant Customer Connect App have been crucial to the economic operation of our plant, and also a flagship project for intelligent plant management.«

Frank Rümper, Asset Manager at Avacon Natur



Operating personnel also benefit from the myPlant Customer Connect App by receiving push notifications with suggestions for improvement, such as optimizing plant performance or increasing efficiency. In addition, the app facilitates direct contact with the Jenbacher Service team, allowing the company to swiftly make decisions that positively impact operating results in an even shorter timeframe.

By simplifying communication with INNIO, the Maas concept helps operators quickly identify optimization potential for their energy solutions and effectively capitalize on them in a resource-efficient manner.

Result

Reliable operating data are needed to increase the economic efficiency of CHP plants, and to expand the role of such plants in the power and heat sector. By linking historical data with forecasts of future behavior, deviations can be detected in advance and measures can be taken at an early stage to avoid shutdowns. Modern automated methods and proactive analysis by engine experts actively support plant operators in improving efficiency, thereby contributing to a positive operating result.

With the innovative Jenbacher myPlant Performance technology, INNIO and Avacon Natur have shown that algorithm-assisted plant management on an industrial scale can be implemented today, setting the course for a greener, safer, more economical, and future-oriented energy supply.

At the Salzwedel plant's CHP module, data points from the Jenbacher DIANE XT engine control system helped the operators recognize that an increase in efficiency would be possible through modifications in mixture formation. Corresponding adjustments were successfully carried out during the following maintenance event.



Technical Data & Saving Potential with Modification (mixture formation)

Installed engine	1 x J416	
Energy source	Pipeline gas	
	Before modification	After modification
Electrical energy	1,189 kW	1,189 kW
Electrical efficiency	43%	43.2%
Difference		0.2%-Points
Energy input (gas input)	2,768 kW	2,752 kW
Gas price (assumption)	0.12 €/kWh	0.12 €/kWh
Operating hours per year	ca. 5,000	ca. 5,000
Gas cost savings per year	0 €	9,600 €
Cost to the customer for the modification		~ 15,000 €



You can find your local support online at:
www.innio.com/en/company/providers

Customer benefits

Benefits from Jenbacher MaaS plant monitoring by INNIO:

- Support for operational management by means of intelligent algorithms
- Plant analysis by means of modern diagnostic technology
- Cost reduction through proactive 24/7 online monitoring by a dedicated team of experts from the original manufacturer
- Tailored upgrade recommendations based on analyzer-specific engine data
- Direct access to the Jenbacher Technical Support team via INNIO's myPlant Customer Connect App
- Reduction of unplanned downtime and early detection of deviations even before they become noticeable

INNIO is a leading energy solution and service provider that empowers industries and communities to make sustainable energy work today. With our product brands Jenbacher and Waukesha and our digital platform myPlant, we offer innovative solutions for the power generation and compression segments that help industries and communities generate and manage energy sustainably while navigating the fast-changing landscape of traditional and green energy sources. INNIO is individual in scope, but global in scale. With our flexible, scalable, and resilient energy solutions and services, we enable our customers to manage the energy transition along the energy value chain wherever they are in their transition journey.

INNIO is headquartered in Jenbach (Austria), with other primary operations in Waukesha (Wisconsin, U.S.) and Welland (Ontario, Canada). A team of more than 4,000 experts provides life-cycle support to the more than 55,000 delivered engines globally through a service network in more than 100 countries.

INNIO's improved ESG Risk Rating again secures the number one position across more than 500 companies globally in the machinery industry assessed by Sustainalytics.

For more information, visit the INNIO website at innio.com or the Jenbacher website at jenbacher.com

Follow INNIO on Twitter and LinkedIn.

© Copyright 2023 INNIO.
 Information subject to change without notice.

INNIO, INNIO, Jenbacher, , myPlant, DIANE are trademarks in the European Union or elsewhere owned by INNIO Jenbacher GmbH & Co OG or one of its affiliates. All other trademarks and company names are property of their respective owners.