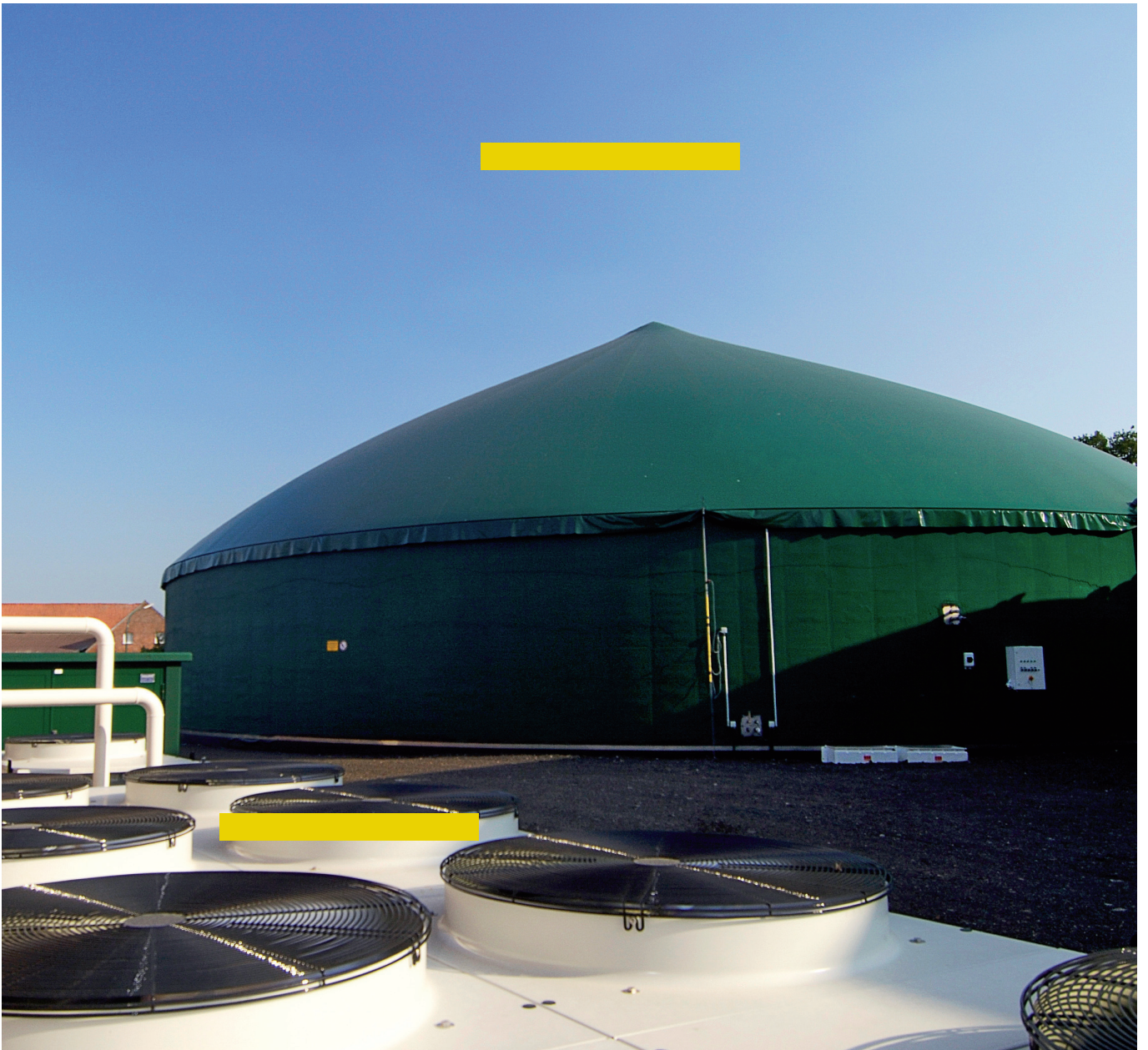


Power out of waste

Control and integration of biogas plants



bachmann.



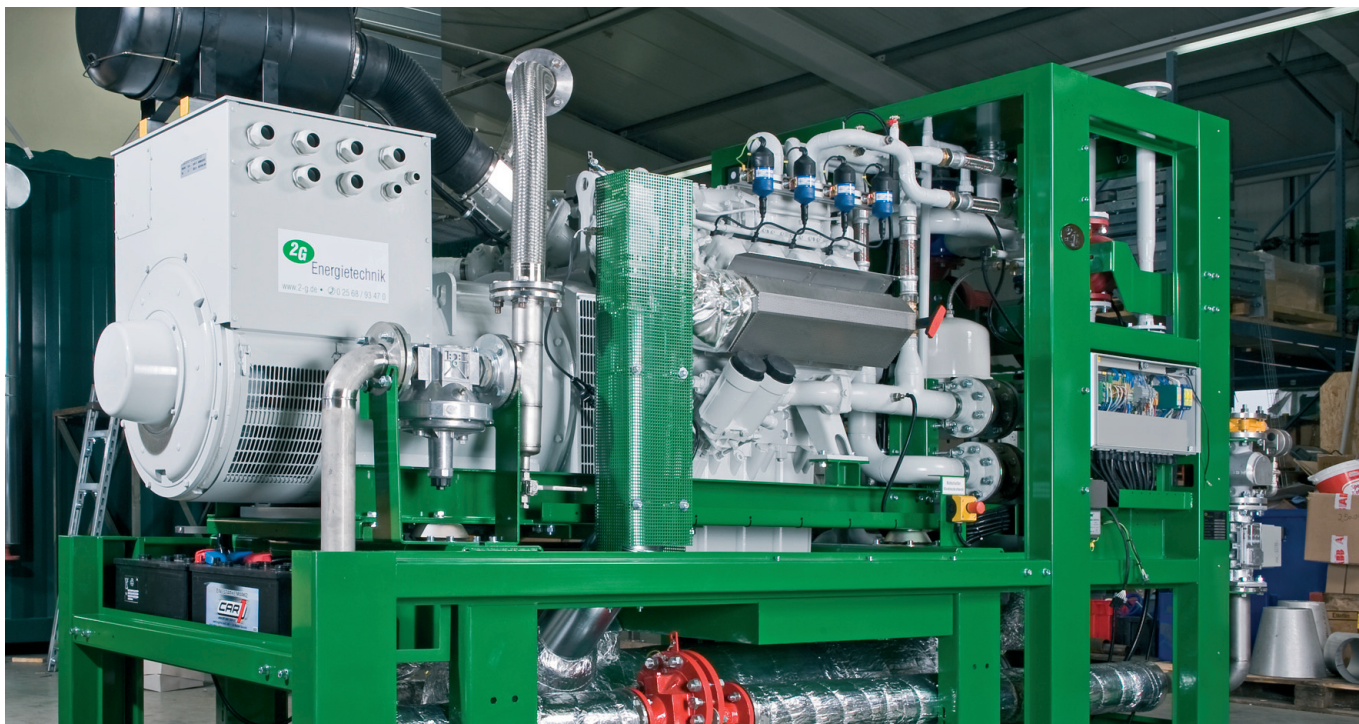
Since its establishment in the year 1995, the company 2G Energy Technology in Western Heek (Germany) has focused on efficient decentralised energy production. Today, the company belongs to the leading providers of thermal power stations (BHKW) and biogas plants in Germany, and has already installed plants in Europe, Russia and Japan.

A continuous observation of processes and the option of remote access by operators to the plant are essential to profitability. The simple and quick networking of all plants via Ethernet and the linked access possibilities were one of the important decisive factors for choosing the M1 automation system.

Monitoring round the clock

It is very important for the operators of biogas plants and thermal power stations to be able to observe and operate their plants round the clock from the exterior. In this way, the efficiency of biogas production can be optimized; this production is dependent on the process and material for fermentation, and thus, the linked energy and heat production is optimized by the BHKW and downtime can be minimized. The 2G Energy Technology allows the opera-

tors to access each of the plants via a secure VPN-Tunnel. "With the help of web-based visualization of the Bachmann M1 system, the service employee can obtain a quick overview of the plants and if necessary, he can intervene", describes Joerg Loesing, Project manager of 2G Energy Technology, as a decisive advantage of the networked M1 automation system via Ethernet. Mr. Loesing outlines a decisive further use of the Bachmann solution: "We can also store



the various visualizations of the control system on M1, which the operator, as well as we as the supplier, can simultaneously access with a standard web browser, without the disadvantage of mutual influence.”

Furthermore, the implementation of visualization in Java ensures the independence of the operator from the operating system (VxWorks, Windows or Linux).

Quick engineering and implementation

2G uses FASTBUS from Bachmann for linking the decentralised input and output units.

“Complicated engineering of bus systems used in the past is done away with by using the Bachmann FASTBUS”, is Joerg Loesing’s description of the experiences during the development of the plant and adds: “We were thus able to decisively shorten our engineering and implementation time periods.” The developer of the switching system creates another decisive advantage with regard to

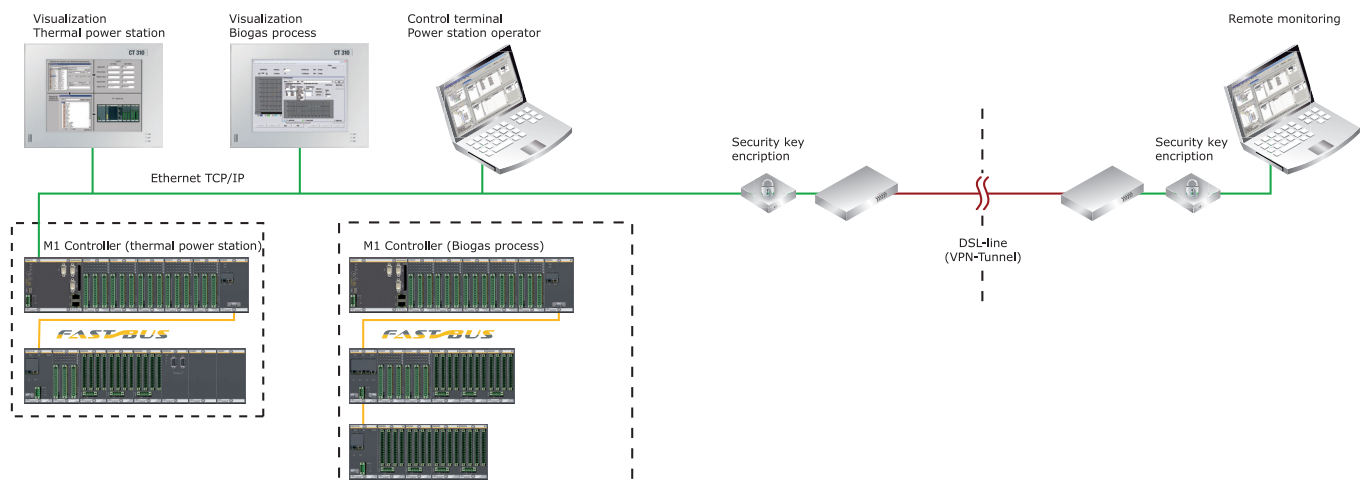
time from the options of Bachmann ‘SolutionCenter’.

2G appreciated also the Low-Level Debugger (LLD), especially during implementation. Complete input/output checks can be undertaken with detailed logging even during the wiring of the control cabinet.

Sustainability counts

The possibilities for quick reaction and intervention during complex processes are decisive in the production and usage of biogas. A service-friendly plant design and creation of all possibilities for reduction of stock keeping, e.g. using combined analogue-digital input/output modules is self-evident.

2G Energy Technology always thinks one step ahead, as an experienced BHKW-plant developer with its own development and production. Joerg Loesing is convinced: “We are well-equipped to meet the special demands of our customers with the open Bachmann M1 System.”



▲ Networked: the automation system of the 2G-Biogas thermal power station.

