



SCHOELLERSHAMMER: first GUTcert certification according to DIN EN 17463

GUTcert (GC) is a certification body for management systems specialising in quality, environmental, energy, occupational safety, health management and sustainability management. It verifies greenhouse gas emissions according to recognised standards and certifies sustainability requirements for biomass according to ISCC/REDcert and the RSPO Supply Chain (SCC), validates sustainability reports and runs an academy. As a member of the AFNOR Group network, GUTcert operates internationally.

SCHOELLERSHAMMER is a traditional family business in its 7th generation, which is very successfully positioned on the international market as an independent manufacturer of corrugated base paper. The company has been certified according to ISO 9001 (quality management) since the early 1990s and ISO 50001 (energy management) since 2011.

As one of the most energy-intensive companies in Germany, SCHOELLERSHAMMER GmbH is subject to extensive legal requirements, including the Energy tax Act (EnStG), the Electricity Tax Act (StromStG), the Energy Financing Act (EnFG) and the Carbon Leakage Ordinance (BECV). All of these legal acts link the corresponding subsidies, e.g. with regard to electricity price compensation or participation in national fuel emissions trading, to the so-called ecological consideration, which must be confirmed by external authorised auditors. Furthermore, in terms of energy saving and supply security, as one of the consequences of the war in Ukraine, the Ordinance on Securing the Energy Supply via Medium-Term Measures (EnSiMiMaV). This also provides for verification of the ecological counter-performance.

The new standard DIN EN 17463 (VALERI) for assessing the cost-effectiveness of energy efficiency measures serves as a recognised instrument in current legislation for providing evidence of environmental performance.

VALERI specifies how information is collected, calculated, analysed and documented in order to make sound decisions based on net present value calculations.

SCHOELLERSHAMMER GmbH is one of the first GUTcert customers to be successfully audited according to VALERI in 2023. We talk to Mr Thorsten Kaesler, the company's Energy Manager, about SCHOELLERSHAMMER's experience with this new audit procedure.

The interview took place on 09.10.2023 via Microsoft Teams.



GC: On 1 October 2022, the German legislator set a deadline of 18 months within which the companies affected by EnSiMiMaV must assess and implement their energy efficiency measures in accordance with VALERI and have the quality of the assessment confirmed externally. SCHOELLERSHAMMER GmbH is one of the first customers to have already received such confirmation. How has the VALERI path been organised?

Kaesler: Protecting our environment has always been a major issue for us. To reduce our environmental impact, we have been increasingly implementing energy efficiency measures for a long time. The success of the extensive investments we have made in energy optimisation can be clearly seen in our key figures: in the last 6 years alone, we have been able to reduce our energy consumption per tonne of paper produced by over 30%. We were therefore fundamentally open to taking a different or more detailed look at the feasibility of energy efficiency measures.

The more we looked at the requirements for increasing energy efficiency in the context of legal obligations for energy-intensive companies, the clearer it became that we needed to standardise our profitability assessment of energy-related measures.

The second realisation was that focusing solely on kWh saved and applying the classic static amortisation method was no longer sufficient. As a result, colleagues from the commercial department had to be involved in this endeavour in order to better bring together the technical and economic worlds.

GC: In what stages did you master the project and what resources did you need for it?

Kaesler: At the beginning, we drew up a matrix of our legal obligations in the context of energy management with reference to the environmental consideration in order to identify overlaps in the legal areas and to fundamentally understand the requirements: What do we have to implement by when and to what extent over the next few years in order to receive our subsidies?

In a further step, we analysed the standard and developed our own Excel®-based tool for evaluating energy efficiency measures, which fully covers both the legal requirements and the aspects of the standard.

As this is a considerable Excel tool with a large number of formulae and links, we gave it to our controllers for validation and testing. This has proved its worth: Not only was the quality successfully tested internally, but our colleagues from Controlling were also directly involved in the new project.

As a result, we now have a powerful measure evaluation tool whose advantages absolutely outweigh the disadvantages! The application makes financing decisions on energy-related measures much easier and more reliable:



- ▶ With just a few entries, we are able to assess the profitability of even smaller projects.
- ▶ For larger projects, the tool can be used to create a standardised simulation for various market scenarios without a great deal of effort.
- ▶ Another benefit of the tool for the entire company is that the methodology is universal and can be applied to any measure - even purely commercial ones.

Finally, we have allocated the energy efficiency measures to the relevant legal requirements in a matrix: Depending on the respective legal act, the requirements for the economic viability of the project (from 20 % to 60 %) vary with different useful lives (from 3 to over 15 years). The allocation in the matrix automatically calculates the extent to which investments must be made in the individual legal areas.

It only took us a few weeks to develop and validate the tool. It went faster than we originally thought.

GC: The VALERI methodology provides for the possibility of drawing up various scenarios for the key framework conditions for investment decisions in order to be able to make the decision on a solid basis. This involves forecasting energy prices, inflation and interest rates for the money required. In these uncertain times, this task feels like looking into a crystal ball. What parameters did you use and what sources of information can you recommend?

Kaesler: First of all, we contacted our house bank to clarify the financial framework conditions and variables. The bank drew our attention to the ECB's current scoring, which is adjusted quarterly and is therefore well suited for our future monitoring.

In the case of energy prices, we have used the previous year as a reference and taken the percentage values for the price increase from the norm, which implies a lower increase in the long term. If prices rise more sharply, we will see positive effects more quickly. We have used the same, rather conservative approach for inflation rates of 2% per year.

GC: What advantages do you see compared to the conventional approach when evaluating energy measures?

Kaesler: We have seen a clear difference with the first projects. By combining technical and commercial arguments in one tool, the decision is clear and quick for everyone: for the first time, we can clearly see the return on an investment over the term - and this under various market scenarios!

Our company works in several shifts 24/7 and amortisation is accelerated over the service life of the systems as a result. We now decide on the basis of the yield over the service life on the one hand and the values from the worst-case scenario on the other. If both are positive, the measure is usually approved.



One example of this is the expansion of heat recovery systems on a paper machine. Given the level of investment and the gas prices at the time, the project implementation was not worthwhile in terms of static amortisation. Due to the rise in energy prices and the evaluation of the measures according to VALERIE, the project is now very economically viable and will be realised in 2024.

As far as heat-saving measures as a whole are concerned, I have a tip for all companies from my own experience: **everything that has not been profitable for a long time should be recalculated and reassessed!**

Another advantage is the possibility of using the tool to map the investment plan for a climate pathway - keyword prioritisation of measures. For this reason, we have also included the CO₂ price and the CO₂ avoidance costs in our assessment as additional parameters that are not required by VALERI.

GC: Has the new procedure influenced the cycle for the management review as part of the ISO 50001 management review cycle?

Kaesler: Not really, in the sense that a final management review still takes place once a year. Otherwise, as energy manager, I am in very close contact with the management: new experiences and solutions are discussed on a weekly basis. For the annual budgeting, the data is collated over the year and planned investments are discussed, but decisions on individual ad-hoc innovation projects are also made during the year. This allows us to remain flexible.

GC: How would you rate the VALERI project for your company overall and what would you recommend to other companies?

Kaesler: Step by step, but with the big goal in mind!

- ▶ The methodology is proving to be very beneficial for the energy team, but also for the company as a whole.
- ▶ An earlier review of the assessment methodology and results gives the user a sense of security and the time to improve if necessary. Our GUTcert auditor has been giving us very focused input for years when it comes to technical optimisation. He knows the company very well, which is why we were able to benefit from our collaboration in this project.
- ▶ ISO 50001 certification requires, among other things, a good metrological basis in order to be able to credibly and transparently demonstrate the improvement in energy-related performance at the main energy consumers. For companies that have smart systems in place, this will also pay off at VALERI: The more accurate the data is, the more transparent the investment decision and its subsequent evaluation will be.
- ▶ The time factor plays a major role. If we hadn't done anything to optimise energy efficiency over the years, it would have been very difficult to implement the legal requirements. However, we have not identified too many measures that need to be assessed and implemented in such a short space of time.



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- ▶ On the one hand, the legislator has given us very little time, but on the other hand, unfortunately, the new rules do not include a premise for continuous improvement: In a sense, it is a matter of a snapshot. This makes compliance more difficult for the companies concerned. We are used to different things from ISO standards and would welcome it if the legislator were to incorporate a certain further development of performance improvement into the legal requirements here too.

GC: Dear Mr Kaesler, thank you very much for your open and, above all, positive words! We hope that you will continue to master your future challenges well and that other companies will feel motivated by your confident experiences to tackle the complex legal requirements.

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