Business challenge
“Although our network operations have worked well in the past, we were looking for a more systematic, structured, and fact-based approach to manage our infrastructure. Our new asset management system turned into a strong competitive advantage right from the start, which came as a pleasant surprise” says Ulf Matthes, Management Representative responsible for ISO 55001 implementation at German company-MITNETZ. Liberalisation of the energy market has revolutionised the sector, making transformation part of everyday routine. Today, most monopolistic structures are a thing of the past, replaced by numerous operators of new distributed systems that feed electricity from renewable sources into the grid. The entire market is complex and highly dynamic. “To make ourselves fit for the future in this challenging environment, we aimed to establish systematic management of our technical equipment, lines, electrical and transformation substations, and many other network components, and to elevate them to a new level, thereby catering to our customer’s needs”, explains Matthes. The two affiliates, Mitteldeutsche Netzgesellschaft Strom mbH (MITNETZ STROM) and Mitteldeutsche Netzgesellschaft Gas mbH (MITNETZ GAS), have different parent companies.

Asset management in accordance with ISO 55001 as a competitive factor

Using ISO 55001 to maximise benefits from physical assets and underpin a systematic approach that delivers higher efficiency, increased safety, and certainty, and greater success in tendering processes.

Case study
MITNETZ STROM & GAS

OVERVIEW

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<th>Client name</th>
<th>Mitteldeutsche Netzgesellschaft Strom mbH (MITNETZ STROM) and Mitteldeutsche Netzgesellschaft Gas mbH (MITNETZ GAS)</th>
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<td>Business challenge</td>
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<td>Our solution</td>
<td>A TÜV SÜD-certified risk-based asset management system in accordance with ISO 55001.</td>
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but collaborate closely. They share a management team and personnel for various tasks, including asset management.

Asset Management – A structured and systematic approach for higher efficiency, and certainty

The high level of technical expertise and dedication of the technical staff at MITNETZ had ensured that network operations ran smoothly in the past. At that time, there were no corresponding regulatory requirements in place. Despite this, MITNETZ sought to improve its asset management. Previously, all company sub-areas had been optimised individually and operated separately as task-based silos. Yet, a well-structured approach delivers higher efficiency, minimises the risk of failure, and leverages opportunities. Given this, the impetus to establish an asset management system came from various levels of the organisation, with the final push coming from technical management. “Our objective was to connect these silos. And as well as seeking to build bridges between them, we also wanted to shift the focus on our customers and display our efficiency based on a modern, effective process chain. We aimed to demonstrate that we use our stakeholders’ investments wisely and at the right time and place – acting proactively and systematically and basing our decisions on facts and figures, not hunches or gut instincts”, explains Matthes.

MITNETZ already holds certifications to various ISO standards. In other words, the company has plentiful experience in the establishment and operation of management systems and is well aware of the benefits they offer. Thus, opting for an internationally recognised standard in the field of asset management was the logical next step. ISO 55001 is an international standard defining 70 requirements that support companies as they establish an asset management system. The standard is ideally suited for capital- and investment-intensive companies from the infrastructure and supply industries, enabling organisations to identify, classify and control risks related to their physical assets. The management system preserves all asset-related information in a standardised and structured framework. This enables stakeholders to make quick, well-informed, and data-based decisions not only on the acquisition, sale, maintenance, and modernisation of physical assets but also for the identified risks, and major opportunities to improve efficiency. The standard has adopted the High-Level Structure (HLS), which facilitates the easy implementation and high compatibility with other management systems. The overall package proved to be the ideal solution for the distribution network operator.

After opting for ISO 55001, the company – and particularly the Technical Asset Management department – dealt with the requirements of the standard in more detail, covering strategic considerations and assessment of the environment; classification of risks and opportunities; consideration of resources, including financial framework conditions; prioritisation of individual assets; incorporation of this information into target network planning; and definition of implementation-ready projects at a mature planning
stage. “Shaping, implementing, and detailing the asset management system was an intensive process that took place throughout our entire company. After all, cultural change – which is precisely what asset management was for us – does not come out of the blue”, comments Matthes. “We also decided right from the start that we would commission third-party experts to put our asset management system (AMS) through its paces and strive for certification, although the certification itself was never our primary motivation.”

ISO 55001 certification in Germany
At the moment, it is not possible for German certification bodies to attain the necessary accreditation to issue ISO 55001 certification. Consequently, it can prove challenging for German companies to be audited and certified in line with the asset management standard. “We had two options: we could either waive certification or take the more circuitous route of using a certification body from abroad. However, we have a technical mindset and like to do things properly or not at all. So we looked for the right solution, and found it in TÜV SÜD Management Service – a German branch of TÜV SÜD”, says Matthes. TÜV SÜD PSB Pte. Ltd., headquartered in Singapore, holds accreditation for ISO 55001. The Singapore-based company collaborates closely with TÜV SÜD Management Service and is thus also authorised to carry out certification as per ISO 55001:2018 in Germany – as the only official body in the country at present. “That was the clincher that made us decide to partner with TÜV SÜD in this, as in all of our other certifications”, explains Matthes. In this project, German TÜV SÜD auditors worked side by side with their colleagues from Singapore, who were able to draw on their practical experience with ISO 55001. This approach ensured that both preparations for the audit and the audit itself ran smoothly without any language barriers or cultural misunderstandings.

First accredited ISO 55001 certificate in Germany
“We worked intensively for implementation of the standard for about one-and-a-half years before undertaking six months of focused preparations for certification”, recalls Matthes. Indeed, the requirements of the standard are quite complex. “The High-Level Structure (HLS) of the ISO 55001 standard and the fact that we underwent parallel certification in accordance with ISO 9001 helped enormously with implementation, as the two standards are relatively similar.” Classification and management of risks and opportunities presented a particular challenge. “In this area, we had to start from scratch as there were no role models in our industry for us to follow. Given this, we developed our approach to the assessment of opportunities and risks. And the auditors recommended us for the award of ISO 55001 certification.” The approach enables an assessment of the opportunities and risks of every asset in line with the five corporate objectives of MITNETZ. Every element is assessed against various parameters, including safety. Applying a complex matrix, the results are translated into an opportunity and risk score in a subsequent step: the higher the risk score, the higher the priority. “During the audit, one of the auditors asked a fitter about the service life and robustness of the tablets that we use outdoors in all weathers, day in day out. Our colleague took his tablet and hurled it to the ground, then picked it up and continued to work as if nothing had happened. This thoroughly convinced the auditor and made a lasting impression”, says Matthes with a grin. “Nevertheless, all audits represent test situations. And, of course, this test situation was challenging partly because of the language, despite the professional translator on site. However, the situation was mastered excellently by all parties involved.” In the end, TÜV SÜD was able to present MITNETZ with the first ISO 55001 certificate issued under accreditation in Germany. This has been a cause
of rejoicing throughout the company. “Of course, what ultimately counts is the way we work; the certificate is just the icing on the cake. Nevertheless, we are very proud to be the first distributed network operator to hold a German ISO 55001 certificate.”

The benefits of ISO 55001 certification
Matthes explains: “We very quickly abandoned our original plan of simply linking the silos, setting out instead to form a single interconnected team. In addition, we now have a continuous process chain that is not only documented on paper but is also used actively in day-to-day business operations. Decisions are taken based on facts and interdependencies are identified much faster.”

One example concerns defective equipment. Where such equipment was simply replaced in the past, the new processes allow for a much more accurate assessment to be made of how the defect impacts the network as a whole, thus enabling the company to choose the best option for addressing the issue in a documented and traceable manner. “Fact-based decision-making means that we prioritise our projects differently today because interconnections have become visible and synergistic effects are now harnessed. Nowadays, for example, we combine tasks and realise, say, a cable route for electricity networks and a gas pipeline for gas networks in the same project. In the past, these two tasks would have been separate silos.”

The ISO 55001 certificate can also be used as visible proof of the company’s performance. “This presents us with new lines of argumentation for dealings with regulatory authorities when we have to defend network charges, and for attracting new customers on the market. In addition, our certificate has already proved a key success factor in various calls for tender and concession awards. Given this, it is evident that ISO 55001 certification has brought a competitive advantage for our company. We had not necessarily expected this and were, therefore, all the more delighted.” Matthes is averse to recalling the time before the AMS was established: “The eras before and after the establishment of our AMS are worlds apart. Sure, everything worked fine in the past, but today everything is so much better.”

As the certification partner of MITNETZ, TÜV SÜD met all of Matthes’ expectations. “Our collaboration is always a partnership of equals based on mutual trust. We were all rather tense in the run-up to certification – which is only to be expected – but the auditor team never let stress become an issue. We can fully recommend TÜV SÜD.”

Tips for readers interested in ISO 55001 certification
The ISO 55001 expert recommends that organisations seeking to establish an AMS as per the ISO 55001 standard should plan enough time and resources for implementation. “As a basic principle, I would allow at least one to two years for implementation and six to twelve months to prepare for certification.” Communication throughout the project is also important. “As in any change project, communication is very helpful to ensure all colleagues are on board and also win over any sceptics. Successful implementation further requires a responsible representative who has the trust and support of management, knows the company inside out, and can drive change management, cultural transformation, new processes, and, later on, continual improvement. And last but not least, you need a good partner for certification – like TÜV SÜD.”
MITNETZ regularly shares its experience with other network operators, supporting them in their introduction of AM systems. “Our certification is noticed by our industry. We are far more frequently asked about it – also from within our group – than we would have expected”, enthuses Matthes. Today, MITNETZ is a member of the E.ON family. “Of course, we are delighted at the appreciation which has greeted our work on the AM system in the new environment. And we’re especially proud when we hear from other members of the E.ON family that they would also like to implement an AM system”, explains the ISO 55001 representative. MITNETZ has already successfully completed its first surveillance audit. “As I always tell my colleagues, we do not prepare for the audit; what we do is live and breathe ISO 55001. The auditors could visit our company on any given day.” Nowadays, TÜV SÜD Management Service has a local lead auditor, so that ISO 55001 certifications can be performed without the need for a translator in the future.

Add value. Inspire trust.
TÜV SÜD is a trusted partner of choice for safety, security and sustainability solutions. It specialises in testing, certification and auditing services. Since 1866, the company has remained committed to its purpose of enabling progress by protecting people, the environment and assets from technology-related risks. Today, TÜV SÜD is present in over 1,000 locations worldwide with its headquarters in Munich, Germany. Through expert teams represented by more than 25,000 employees, it adds value to customers and partners by enabling market access and managing risks. By anticipating technological developments and facilitating change, TÜV SÜD inspires trust in a physical and digital world to create a safer and more sustainable future.

The Customer
Mitteldeutsche Netzgesellschaft Strom mbH (MITNETZ STROM), headquartered in Kabelsketal, is a 100% subsidiary of envia Mitteldeutsche Energie AG (enviaM). As the leading regional distribution network operator in Central Germany, MITNETZ STROM and its approximately 1,500 employees are responsible for planning, operation, and marketing for the enviaM electricity network. The power distribution network operated by MITNETZ STROM spans roughly 74,000 kilometres across the German states of Brandenburg, Saxony, Saxony-Anhalt, and Thuringia.

Mitteldeutsche Netzgesellschaft Gas mbH (MITNETZ GAS), headquartered in Kabelsketal, is a 100% subsidiary of MITGAS Mitteldeutsche Gasversorgung GmbH (MITGAS). As a distribution network operator, MITNETZ GAS and its 140 employees are responsible for planning, operation, and marketing of the leased networks. The gas networks cover a total length of roughly 7,000 kilometres, spanning parts of the German states of Saxony, Saxony-Anhalt, Thuringia, and Brandenburg.