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| Inspirational story | Compressed air leakages reduction after Energy Scan | INST-01 |
| Country | Germany | |
| Energy efficiency measures | Reduction energy consumption by reduction of compressed air leakages, replacement of lights with LEDs and decrease of night heating. | |
| SME sector | Any company using compressed air in its production processes | |
| Why | <p>Driving energy transition and decarbonisation in production plants. Making rational use of energy for heating, lighting and production processes and optimize use of resources helps the SMEs to contribute with the environment and to reduce their energy costs. It also has an impact in the selling opportunities of the company, as the CO₂ footprint is becoming a requirement in the supply chain and financing of some industries.</p> | |
| How | <p>Approach The goal of the company was to reduce its energy consumption and its CO₂ emissions, to this end, energy efficiency measures were subsequently analysed and implemented. Following the recommendations given in the Energy Scan the company held support from an energy service provider to quantify its compressed air losses. A noticeable leakage in the system was found. To dispose these losses upstream throttles in compressed air gun to reduce air flow were used. Also, a reduction of the total pressure of the compressed air system has been studied. Measures as lowering the temperature in factories at night and replacing lighting with LEDs were implemented. These three first measures are expected to bring a reduction of the electricity consumption of approx. 8 % and of heat consumption of approx. 4%. Finally, the company also closed a new green electricity purchase agreement, thereby reducing all its electricity-related CO₂ emissions.</p> <p>Other measures as switching off machines, increasing the installed PV power are included in the road map of the company. Discussions on the internal organisation, assignation of roles and responsibilities were held. The “Avoid-Substitute-Compensate” approach was followed for improving the energy usage of the company.</p> | |
| | <p>Setback The potential for energy savings could not be fully exploited, as more complex measures requiring not only greater investment, but also more personnel and time resources could not be implemented. This was the case for the implementation of a compressor heat recovery system for compressed air production, which has been put</p> | |





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| | <p>on hold until a budget allocation is available for feasibility analysis and implementation.</p> |
| Whom | <p>The implementation the measures involve following stakeholders:</p> <ul style="list-style-type: none">- Management for decision making and assignation of the required resources- Service provider for a deeper analysis of the saving potentials- Technical department for the implementation of the measures |
| What | <p>The measurable benefits of implementing the energy efficiency measures are the 10 % reduction in energy consumption and associated energy costs. The purchase of green electricity leads to the avoidance of 95% of the energy-related CO2 emissions.</p> <p>Moreover, as Greenhouse gas emissions reporting has recently become a supply chain requirement in many industries, by reducing its CO2 emissions, the company secures its future as a potential supplier to large corporations which are required to report on climate and the environment.</p> |
| Lessons learned | <p>Management commitment was crucial for the implementation of energy efficiency measures. The willingness to contribute to municipal and European targets, increasing customer pressure and supply chain requirements, and the possibility of reducing energy costs are driving forces for engaging the decision-makers.</p> <p>Another success factor was the in-house technical knowledge and the availability of a reliable service provider who could perform the necessary measurements and analyses.</p> <p>In this project, lack of time, personnel and funding were the biggest obstacles to implementation. However, starting with measures that require less investment and personnel already resulted in significant savings.</p> |

