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## Identifying energy flexible manufacturing layouts in a light metal foundry

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### Abstract

Energy flexibility is becoming increasingly important due to the changing energy policy in Europe. The reliance on renewable energies will bring about fluctuations in the energy supply. Production systems must be designed to adapt to those circumstances, thus demanding production systems to act in an energy flexible manner. Axiomatic design allows to compare manufacturing layouts and provides a holistic planning approach, allowing to integrate several functional requirements in the design phase of systems. The goal is to define energy flexibility as a design goal and introduce a standardized procedure allowing designers to integrate energy flexibility in their planning process.

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