Doctoral Landscape Award (DLA) project

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Flexible operation of electrified industrial processes for grid support

This project aims to develop a stochastic optimization framework that will enable the flexible operation of electrified industrial processes, allowing heavy industries to dynamically adapt their high-power consumption for power grid support. By leveraging machine learning models for advanced forecasting of volatile electricity prices, renewable availability, and industrial process constraints, the proposed system is intended to mitigate operational risks while minimizing carbon emissions and energy costs.