

Challenge 4: LEAG – Renewable energy vision

About the Company

LEAG (Lausitz Energie Bergbau AG, Lausitz Energie Kraftwerke AG, and Lausitz Energie Verwaltungs GmbH) is one of the largest private employers in the industrial sector of eastern Germany. It operates the second-largest lignite mining area in Germany, produces and supplies high-quality refined fuels to 21 countries, and operates state-of-the-art lignite power plants. The company employs approximately 7,000 people across 13 locations. LEAG aims to provide reliable, affordable, baseload-capable electricity to people in Germany, and in the future, it plans to achieve this through renewable energy sources, storage technologies, and innovative, low-emission generation capacities under the brand name GigawattFactory. By 2038, LEAG aims to have 7 GW of securely installed capacity characterized by its portfolio.

Transformation Processes in the Company

The transformation processes in LEAG involve transitioning from reliance on fossil fuels, particularly lignite, to renewable energy sources and innovative technologies. The company aims to integrate renewable energy, storage technologies, and low-emission generation capacities into its energy portfolio.

Challenges in these Transformation Processes

The main challenge is bridging the gap between energy demand and the availability of renewable energy sources such as wind and solar power. These sources currently have volatile availability and cannot meet the requirements for a secure energy supply. Overcoming this challenge involves finding approaches and solutions to ensure a reliable energy supply.

Possible Challenges

These challenges address the goal of achieving a reliable, affordable, and sustainable energy supply based on renewable energy sources and innovative technologies. International startup teams with expertise in these areas may offer valuable solutions and contribute to LEAG's transition towards a greener and more secure energy future.

1. How to install millions of PV modules cost- and work-efficiently?
2. How to store electric energy without the use of rare-earth elements?
3. Which renewable technologies are able to provide 24/7 reliable baseload? /
How to decouple wind and PV power from fluctuations?
4. How to provide warmth/heat from renewable sources for industry and municipalities? /
How can the heating infrastructure be further developed with regard to the integration of renewable energies?

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