Clemens Lohr

SHORT BIO

Dr. Clemens Lohr is a Consultant at Neon and an expert in energy system analysis. During his PhD at Leibniz University Hannover, he focused on the distribution of renewable energy and storage flexibility in climate-neutral energy systems. A key aspect of his work was the development of an optimization model for the transformation of energy systems in Europe. While pursuing his degree in industrial engineering (B.Sc. and M.Sc. at Leibniz University Hannover), Clemens gained extensive practical experience in the energy sector. He worked with a regional distribution network operator, municipal utilities, and an energy service provider, focusing on the deployment and commercialization of storage solutions and flexibility on German electricity markets. He further expanded his expertise during international academic stays: at Ball State University (USA), where he deepened his knowledge in foreign trade theory, and at Universidad Rey Juan Carlos (Spain), where he studied corporate management. Additionally, as an independent consultant for process and project management, Clemens acquired valuable experience across various industries.

POSITIONS

2024 – present Consultant at Neon, Berlin

Neon Neue Energieökonomik GmbH is a Berlin-based boutique consulting firm for energy economics. Clemens is a consultant and analyst for various topics at Neon.

2018 – 2023 Research associate at Leibniz University Hannover

The chair of Electric Energy Storge Systems at the Institute of Electric Power Systems focuses on methods for designing and operating interlinked energy and conversion systems. Clemens developed a techno-economic optimization model for the energy system transformation in Europe and conducted research on methods for the spatial distribution of renewables in climateneutral energy systems.

2014 – 2022 Advisor, Board member and Consultant at Janus Consultants, Hannover

Janus Consultants is a junior enterprise, providing consultancy and focusing on medium-sized and German companies. Clemens was the head of quality management and member of the advisory board, conducted several training courses and worked in various external projects.

2017 – 2018 Research assistant at Leibniz University Hannover

Clemens analyzed and optimized the plant portfolio for cross-sectional markets (power, heat, cold, gas) at Berlin EUREF-Campus in a joint project of the Institute of Electric Power Systems and GASAG Solution Plus.

2016	Intern at enercity -	- Stadtwerke Hannover AG

Enercity is a municipal energy service provider. Clemens developed a commercialization strategy for battery storage systems and optimization tool for unit commitment.

2013 Intern at E.ON Avacon AG, Salzgitter

Avacon is a regional distribution service provider. Clemens calculated and analyzed the impact of battery storage systems by PV operators on the distribution system.

EDUCATION

2018 – 2024	Energy Engineering (Ph.D.), Leibniz University Hannover "Spatial distribution of renewables in optimization models for climate-neutral energy systems considering non-technical aspects"
2015 – 2016	Industrial Engineering (M.Sc.), Leibniz University Hannover GPA: 1.3 (A) (Niedersachsen Scholarship) Strategic Management at Rey Juan Carlos University, Madrid, Spain (semester abroad)
2010 – 2014	Industrial Engineering (B.Sc.), Leibniz University Hannover GPA: 1.7 (B+) International Economics at Ball State University, Muncie (IN), USA (semester abroad) GPA: 1.0 (A) (Dean's list award)

PROJECT HIGHLIGHTS

2025	Grid utility of large-scale batteries (ECO STOR) . Definition and quantification of grid utility today and discussion of instruments for grid-friendly operation of large-scale batteries
2024	Excess electricity (BMWK) . Probability forecast of excess electricity situations for upcoming years and support for the German government addressing the problem.
2024	Smart charging (Rabot Energy) . Quantification of the value of smart and bidirectional charging for various dynamic tariffs.
2024	Dynamic FIT (50Hertz) . Development of a reformed feed-in-tariff that incentivizes producers to turn off in situations of oversupply.
2024	Imbalance settlement price (Swissgrid) . Development of a new imbalance settlement pricing regime for Switzerland.