# Professorship of Economics of Energy Markets TUM School of Management

# Project Study on Optimal Pricing for EV Fast-Charging Services

#### Considering Network Competition and Market Dynamics

The electric vehicle (EV) charging market is pivotal in the global shift towards sustainable transportation. As a key component of e-mobility, EV charging infrastructure supports the energy transition by reducing reliance on fossil fuels and promoting cleaner, renewable energy sources. In collaboration with IONITY, this project aims to refine an existing EV fast-charging price optimization comprehensive model by integrating market competition dynamics, technological adoption rates, and network economics principles to create more realistic and effective market scenarios to find optimal EV Charging pricing strategies.

By participating, students will apply their analytical and quantitative skills to real-world challenges, enhancing their understanding of applying network economics and optimization theory to solve real-world challenges in the EV charging market.



#### What you will gain

- Opportunity to interact with one of the leaders in the fast-charging market, gaining insights and possible future collaboration.
- Develop practical skills in optimization and market analysis that are directly applicable to the energy sector.
- Utilize actual market data from the EV charging sector, offering a real-world context to your studies.

## Your profile

- A Master's student enrolled in Management and Technology, Mathematics, Informatics, , or related fields. Proficiency in analytical skills such as *Python*, *MS Office*.
- Experience with optimization modeling languages like *Pyomo* or *Gurobipy*, and/or optimization solvers such as *Gurobi* or *CPLEX*, would be a plus.
- A strong interest in the role of e-mobility in the energy transition and its contribution to sustainability.
- Motivation on applying theoretical knowledge to address real-world challenges in a dynamic sector.
- Excellent collaboration skills and the ability to work effectively in diverse teams.

#### **Project duration**

Either 3 months full-time (approx. 40 hours per week) 6 months part-time (approx. 20 hours per week)

## Application

Please submit your current transcripts, 1-page CV, and motivation letter (optional, max. 400 words, detailing your relevant experience and skills) through this google form by **28<sup>th</sup>. April**.