Master Thesis / Project study / IDP

How do technology costs in the field of renewable generation develop over time?

Background

Technologies enabling renewable energy development such as PV, wind turbines, electricity storage and power-to-gas have seen a rapid cost degression over the last decade. In terms of policy making, enabling rapid cost degression is an important measure fostering the transition towards completely renewable energy sector.

Research Questions

Based on the above, we want to investigate how various renewables support mechanisms are influencing the costs of such technologies and in particular their development over time. Answering this question consists of:

- Analyze cost degression of different technologies and areas
- Relate these to each other
- Perform a quantitative analysis of so-called spillover effects (i.e. how do costs in region A influence costs in region B or how do costs for technology A influence costs for technology B)
- Qualitative analysis of renewables’ support policies and how they are connected to the costs

The research question can be answered using a mix of qualitative and quantitative method. To a large extent, we can rely on publicly available datasets.

Due to the wide scope of the project, it is available as Master’s Thesis, Bachelor’s Thesis, Project study or IDP.

Qualified applicants are invited to send their electronic application to cem@wi.tum.de.