Project outline
for a Bachelor or Master's thesis
provided by EWS GmbH & Co. KG
for a student in the field of
Energy management or Energy technology

Assignment:

How do the requirements for the use of commercial battery storages differ from each other in the Northern European solar markets?

Proposed title of the study:

Country-specific comparison of the technical and economic conditions for the use of commercial battery storages

Aim:

Comparison and evaluation of the different connection conditions, safety requirements, tariff structures and tax-related aspects in the commercial use of battery storages in Northern Europe

Background:

The company EWS is a photovoltaic wholesaler and has supported solar installers in Northern Europe with the dimensioning of solar electric installations with or without a battery storage system since 1985. The use of battery storages for the purpose of increasing the rate of self-consumption or raising the degree of autonomy in residential applications has increased significantly in recent years. Even though the price-performance-ratio of battery storages has improved constantly, economic considerations rarely are a crucial factor. Businesses often only opt in favor of a storage system if profitability has been proven, irrespective of whether a solar electric system has been installed or not. As the latest commercial battery systems pay off in less than three years under certain circumstances, there is a huge untapped potential so far, especially in terms of peak load shaving, optimization of the rate of self-consumption and tariff-specific business models.

Problem statement:

The technical, administrative and economic conditions for the use of commercial battery storages partly vary considerably in the Northern European countries. Without in-depth knowledge of the essential influencing factors, profitability cannot be verified in individual cases.

Potential approach:

Based on a current student research project on the dimensioning of commercial battery storages this project focuses on the research and evaluation of different conditions for the profitable use of such systems in selected Northern European markets.