Module 2 – Electricity Spot Markets (e.g. day-ahead)

Module introduction

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In the electricity market timeline

Market Operator

Day-ahead → Intra-day

schedule/commitment respected?

Ancillary services

System Operator

Balancing

Real-time
An example spot (day-ahead) market

- Nord Pool has a typical day-ahead market (Elspot) whose design has inspired many others
- Let us consider its timeline:

For simplicity, we will focus on a single program time unit in this module
Learning objectives

Through this module, it is aimed for you to be able to:

1. Describe an electricity pool and its auction mechanism

2. Formulate market clearing as an optimization problem and solve it

3. Understand how to account for network effects and the resulting differences between zonal and nodal pricing

4. Calculate revenues and payments of market players under different settlement methods
Module outline

Module 2 is based on 5 video lectures and associated self-assessment quizzes:

2.1 From bilateral Contracts to the electricity pool
2.2 Market clearing as an optimization problem
2.3 From prices to settlement
2.4 Zonal and network aspects
2.5 Regulation and support schemes
Good luck with Module 2!