

# Internship

## Implementation of a capacity calculation process

Are you looking for an internship for at least 10 weeks? We are giving you the chance to put your theoretical knowledge into practice.

### 1. Description

You will work on practical and sustainable projects which overcome strategic challenges of Coreso SA.

The intern will also enjoy an international experience while developing professional skills with concrete tasks. This internship will allow the student to bring their classroom knowledge into a professional work setting and broaden their knowledge through hands-on application in a professional environment.

As an intern in Coreso's development department, you will be part of an international team of engineers who are working with TSOs to develop and implement the capacity calculation method and turn it into an operational process that will be operated in Coreso's control room.

You will gain an in-depth knowledge of the flow-based capacity computation methods, which are at the interface between grid operation and the electricity market. You will participate in the experimentation phase of the project by operating the prototypes and you will make them evolve towards reliable and highly automated tools.

Your tasks will include:

- Operating the prototypes to process the TSOs' input data
- Creating or improving macros and scripts that perform data gathering and data transformation
- Working with developers who will create the industrial solution of the tools by writing specifications and testing intermediate versions of the software
- Liaising with IT experts of the external tools and servers involved in the process.

This internship will give you a solid knowledge of grid operation rules and of the electricity market.

Send your CV and application form to [contact@coreso.eu](mailto:contact@coreso.eu).

### 2. Context

Capacity calculation consists in determining the volume of capacity available for market participants to trade across the bidding zone borders.

Coreso is currently working with 16 TSOs of 13 different countries to define and implement a capacity calculation mechanism using the flow-based method pursuant to the Capacity Allocation and Congestion Management (CACM) guideline.

The calculation is based on models of the European grid on which a complex series of operations (load flows, market behaviour simulations and optimizations) is performed. It is currently in experimental phase and will be gradually improved and automated to become an operational process.

### 3. Prerequisites

The ideal candidate is an engineering student at Master degree level (4th or 5th year of studies). We are looking for somebody detail oriented, organized and creative and who possesses a professional work ethic and is enthusiastic to gain new knowledge.

Skills and competences:

- Knowledge of the electricity sector
- Knowledge of electricity fundamentals
- Ability to present complex technical subjects very clearly
- Excellent computer skills
- Knowledge of VBA and at least one other programming language
- Prior experience in developing complex IT tools (with numerous modules and inputs/outputs) is an advantage
- Language: Very good command of English is a must

### 4. Conditions

The intern will enjoy an international experience while developing professional skills with concrete tasks.

This internship will allow the student to bring their classroom knowledge into a professional work setting and broaden their knowledge through hands-on application in a non-profit environment.

- Reimbursement of travel costs or rental charges if you come from abroad.
- Hands-on experience to build portfolio and professional contacts.
- School credit, depending on the requirements.

### 5. About Coreso

The mission of Coreso is to proactively support Transmission System Operators to ensure Security of Electricity Supply in Europe. Located in Brussels, about fifty engineers, seconded from their companies, combine their expertise 24 hours a day, 7 days a week to anticipate the operation both in the short term and the long term, from a year ahead until Intraday (few hours before real time)

Founded in 2008, Coreso encompasses nine European operators, which are also its shareholders (Elia in Belgium, Eirgrid in Ireland, 50hertz in Germany, National Grid in the UK, REE in Spain, REN in Portugal, RTE in France, SONI in Northern Ireland, Terna in Italy).

Within the European context of progressing market mechanisms, continuous growth of renewable energy, ambitious grid development and further harmonization, new coordination challenges are numerous. Coreso aims to build up, together with all partners, the adequate coordinated operational processes to cope with these game changers. To secure operation of the European electricity system represents a truly international challenge.