

# Internship

## Short and Medium Term Adequacy (SMTA) and transition to SMTA version 2

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.

Your tasks will include:

- Operation of the prototypes and creation of macros or scripts that perform data gathering and data transformation to support Project team in the transition to SMTA version 2
  - Set the detailed must-run experimental phase: planning, test cases; and analyze the results for presentation to the RSCs/TSOs
  - Research on statistical calculations and application on SMTA project: relevant data, best way or representation in relation with Seasonal Outlook team (ENTSOE)
  - Support project team in Regional SMTA test phase in link with CGM Project Coreso member team and CORESO team
- Maintenance of prototype tool

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

The main goal of the Short & Medium-Term Adequacy Assessment Process is to perform a regional short and medium-term adequacy diagnosis confronting local adequacy inputs (load and generation) and cross-border exchanges.

The Cross-Regional (European) process is currently performed with a prototype tool (a tender for an Industrialized tool started in July 2018 with a delivery foreseen for last quarter 2019).

At the same time, other methodologies are being developed in link with the Transmission System Operators (TSOs) to make more realistic the results of SMTA calculation.

These added functionalities are:

- The consideration of Must-Run generation
- The simulation in probabilistic assessment of generation tripping
- The Simulation in probabilistic assessment of HVDC lines tripping

The consideration of Must-Run generation will be tested via the prototype tool. The period of the experimental phase has already been planned for December 2018.

As the probabilistic assessment will be more complex with the consideration of generation and HVDC tripping, a work must be done on the way of analysing and representing in a tool this statistical data.

In parallel, the Regional process is being developed in order to relieve adequacy absences detected during the Cross-Regional calculation. Outputs of the Cross-Regional will be transferred into a grid model on which actions will be tested: decrease load, increase generation, increase export/imports capacities on borders between countries. The challenge is the transfer the data into this Grid Model which format (CGMES) is in development phase.

The road map for SMTA 2019 has been decided. Validation by government bodies of full description of this process is foreseen in 2019.

### 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 electricity fundamentals
- Ability to present complex technical subjects very clearly
- Excellent computer skills
- Java programming language, Excel Macro, knowledge of VBA a
- Prior experience in developing IT tools (with numerous modules and inputs/outputs) is an advantage
- Language: Very good command of English is a must
- Creativity, curiosity, autonomy, team oriented

### 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.