



Avenue de Cortenbergh 71, 1000 Bruxelles / numéro d'entreprise 0808.569.630 / [www.coreso.eu](http://www.coreso.eu)

## ANNUAL REPORT 2013

### Contents

<b>1.</b>	<b>Composition of management bodies .....</b>	<b>2</b>
1.1.	<i>Board of Directors .....</i>	2
1.2.	<i>Daily management responsibilities.....</i>	2
1.3.	<i>Auditor.....</i>	3
<b>2.</b>	<b>Main events during the year.....</b>	<b>3</b>
<b>3.</b>	<b>Outlook .....</b>	<b>5</b>
<b>4.</b>	<b>Subsidiaries .....</b>	<b>6</b>
<b>5.</b>	<b>Events after the end of the year.....</b>	<b>6</b>
<b>6.</b>	<b>Notes to the annual accounts.....</b>	<b>7</b>
6.1.	<i>Introduction.....</i>	7
6.2.	<i>Balance sheet .....</i>	7
6.3.	<i>Income statement .....</i>	9
6.4.	<i>Profit for the financial year available for appropriation.....</i>	10
6.5.	<i>Financial instruments .....</i>	10
<b>7.</b>	<b>Description of the risks and uncertainties facing the company .....</b>	<b>11</b>
<b>8.</b>	<b>Internal audit.....</b>	<b>12</b>
<b>9.</b>	<b>Research and development .....</b>	<b>13</b>



## ANNUAL REPORT 2013

### **1. Composition of management bodies**

#### **1.1. Board of Directors**

The Board of Directors has the following members:

- Mr Daniel Dobbeni, Chairman of the Board of Directors;
- Mr Christopher Train, Vice-Chairman of the Board of Directors;
- Mr Dirk Biermann, director;
- Mr Mike Calviou, director;
- Mr Roeland Goethals, director;
- Mr Dominique Maillard, permanent representative of RTE Réseau de Transport d'Electricité SA, director;
- Ms Brigitte Peyron, director;
- Mr Carlo Sabelli, director;
- Mr Pier Francesco Zanuzzi, director.

None of the directorships are remunerated and all will expire immediately after the ordinary general meeting to whose approval the annual accounts as at 31 December 2014 are submitted. Mr Mike Calviou was appointed director by the general meeting of 23 April 2013 after being co-opted by the Board of Directors on 19 October 2012.

Mr Daniel Dobbeni and Mr Christopher Train were appointed Chairman and Vice-Chairman of the Board of Directors respectively on 20 April 2012, for a term of three years.

The Board met four times in 2013 and discussed technical, financial, economic and strategic issues.

#### **1.2. Daily management responsibilities**

Mr Patrick De Leener was appointed head of operations, with the title Chief Executive Officer, effective as from 1 January 2013.

Mr Cédric Auxenfants was appointed Chief Operating Officer, effective as from 1 August 2012.



Avenue de Cortenbergh 71, 1000 Bruxelles / numéro d'entreprise 0808.569.630 / [www.coreso.eu](http://www.coreso.eu)

### **1.3. Auditors**

The general meeting of 20 April 2012 appointed KPMG – Réviseurs d'entreprise BCVBA/SCCRL, represented by Alexis Palm and Ernst & Young Réviseurs d'Entreprises BCVBA/SCCRL, represented by Marnix Van Dooren, as the auditors of the company for a period of three years, expiring at the ordinary general meeting of 2015 deciding on the annual accounts for the year ended 31 December 2014.

The remuneration for the auditors shall be €12,925.00 per year, to be indexed annually in line with the consumer price index.

## **2. Main events during the year**

Coordination of Electricity System Operators (Coreso), which launched operations in February 2009, is the first technical coordination centre in continental Europe to be shared by multiple transmission system operators. Coreso has notably enhanced the operational coordination of transmission systems in the Western Europe region in response to new challenges. The development of renewable energies, which are by nature intermittent, and the increase in cross-border exchanges within the European electricity market make electricity flows increasingly variable. In this area, Coreso has demonstrated a high level of reliability and expertise. Its added value for identifying risky situations for the electricity system, which can only be detected by having an overview extending beyond the national scope of each individual transmission system, is now essential.

Specifically, Coreso provides the control centres of participating transmission systems with forecasts about the security of systems within its observation zone. To that end, Coreso carries out security analyses, simulating various scenarios and suggesting remedial actions. Coreso coordinates exchanges between the various national control centres, which remain responsible for implementing these actions in their respective systems, with a view to obtaining the agreement of each control centre for the proposed remedial actions.

In 2013, Coreso was able to provide D-1 (= day-ahead, i.e. one day before real time) analysis and coordination services every day for the fifth consecutive year.

Coreso's shareholders are Elia (Belgium), RTE (France), National Grid (UK), Terna (Italy) and 50Hertz (eastern Germany and Hamburg).

### **Development of 'intraday and close to real-time' activity**

Due to the greater volatility of renewable energies, the increase in capacity between countries and increasingly flexible markets, Coreso has put in place an innovative intraday process to review its forecasts until close to real time. This follows on from the collaboration with the TSC coordination initiative to establish a common intraday congestion forecast file (IDCF) exchange procedure.

Consequently, Coreso has developed tools to gather the various incoming data (individual files). Coreso merges these files to generate a full description of the grid for Western Europe based on the latest forecasts representing the realest possible situation. Security analyses are regularly performed based on the intraday files, simulating faults on each 380-kV line, 220-kV lines, main generation unit or busbars in strategic substations. Two reports tracing the results



Avenue de Cortenbergh 71, 1000 Bruxelles / numéro d'entreprise 0808.569.630 / [www.coreso.eu](http://www.coreso.eu)

and the discrepancies between the D-1 and intraday studies are then sent to the TSO (Transmission System Operator) each day.

The Coreso operators advise the TSOs' dispatchers about new constraints and propose optimal solutions. The national control centres continue to have final responsibility for deciding on the type and implementation of the remedial action.

### **Calculating capacity on the Italian border (Central South Europe area – CSE)**

The area around the northern border of Italy is under significant structural stress as Italy usually imports at maximum capacity. Consequently, Coreso's added perspective and proposals are especially relevant to Terna.

Based on its experience in the CWE region, Coreso is now involved in the two-day-ahead capacity calculation project for the Central Southern Europe (CSE) area. As a coordination centre (on behalf of RTE and Terna) and in cooperation with Swissgrid, Ees and APG, Coreso will be in charge of performing data quality checks, merging files and calculating maximum import capacities at the northern Italian border.

Using a data improvement loop, security analyses and an innovative algorithm that automatically finds the best set of remedial actions in the event of constraints (phase-shifting transformer, specific topology in a substation and redispatching), Coreso will help its partners to carry out this project geared towards a technically and economically optimised two-day-ahead capacity allocation system which will eventually replace the annual capacity calculation process.

This new service will be operational in early 2014 with the aim of allocating calculated capacity in summer 2014.

### **Two-day-ahead activity linked to flow-based market coupling**

Coreso is also playing an active role within the Central West Europe (CWE) area in implementing the flow-based market coupling mechanism for calculating D-2 capacity, which will ultimately replace the ATC market coupling mechanism.

Since March 2012, Coreso has been operating the flow-based prototype for RTE and Elia. In addition, Coreso has been chosen as one of the two hosting entities for the platform used in market coupling.

In addition to operating the prototype and participating in this process, Coreso plays an active role in coordinating TSOs by coordinating the phase-shifting transformers and, in the near future, by organising the management of remedial actions (RAs) in the CWE area.

### **Collaboration with the Great Britain Synchronous Area**

Coreso and National Grid are currently working with RTE, Elia, TenneT NL, NGIC and BritNed to develop an HVDC flow redirection process between France and England and between the Netherlands and England.

Redirecting flows over interconnectors is an operational process for adjusting transits on HVDC links (IFA and BritNed) without affecting commercial or market arrangements. It consists of modifying the set points of both IFA and BritNed interconnectors by the same amount and in opposite directions so that the energy balance of each TSO is unchanged but the internal flows



are altered for the benefit of one or more parties, thus resolving network constraints on both sides of the English Channel.

Real-time operational tests are scheduled for 2014.

### **Incident management– Monitoring frequency**

Coreso's main objective is to avoid major disruption by conducting transmission system analyses, and identifying and mitigating risks to the European transmission system. These coordination measures are provided to a number of TSOs to reduce the risks from D-1 to real time.

The stressed situations for which Coreso provides added value are more frequent due to the greater volatility of renewable energies, the increase in capacity between countries and increasing market flexibility.

In this context of increased power flow volatility, the appearance of major frequency deviations in terms of amplitude and duration is not uncommon. Coreso has therefore developed tools and procedures to help its shareholders and provide them with a real-time response if such an event takes place.

Thanks to its organisation, the expertise of its operators and its tools for obtaining the necessary real-time overview, Coreso provides the TSOs with valuable and comprehensive information in the form of a report, which helps them to understand and act efficiently in the event of major disruption across Europe.

In November 2013, to advance even further in this area, Coreso acquired a tool called EAS (European Awareness System), which monitors the frequency, system status, commercial exchanges and imbalances for European countries.

### **Creation of new jobs**

To cope with the extension of its services, Coreso is increasing its number of operators (increase from 19 to 22 under way; 20 in service at the end of 2013), setting up a project unit (4 project engineers in phase one; 3 in service at the end of 2013) and is also planning to reinforce its IT unit (hiring of an IT manager planned for 2014).

## **3. Outlook**

### **A new level of regional coordination in Europe: a key role for RSCIs and bottom-up implementation ensuring Europe-wide coverage**

The highly volatile volumes and directions of European electricity power flows means that they are now much more difficult to predict and calculate than in the past, leading to an **increased need for more operational coordination**. Renewable energy's growing market share and the evolution of the European Internal Electricity Market are the main drivers behind this development.

The upcoming **European Network Codes** recognise this need for increased coordination in terms of operational security. Moreover, they also introduce the concept of the Regional



Avenue de Cortenbergh 71, 1000 Bruxelles / numéro d'entreprise 0808.569.630 / [www.coreso.eu](http://www.coreso.eu)

Security Coordination Initiative (RSCI).

As an RSCI, Coreso aims to proactively **assist the Transmission System Operators in ensuring security of supply at regional level.**

Moreover, being a **centralised RSCI**, in the sense that experts from the participating Transmission Systems Operators join Coreso to exchange and work together, Coreso believes that **the time from a few days ahead of supply until close to real time** provides the highest added value and thus should be the focus for operations. Coreso aims to provide services to TSOs which enable a secure and manageable electrical system, while the TSOs remain responsible for the operation of the system.

As such, the focus for current and future developments is on:

- enhanced security analysis (coordinated processes to ensure **secure electricity flows**);
- capacity calculation (**coordinated capacity input for market allocation mechanisms**);
- **coordinated use of assets** (such as phase-shifting transformers and HVDC cable rescheduling); and
- **short-term regional adequacy** (in anticipation of the balance between generation and demand).

The planned vision for the future takes account of the diversity of market developments and the operational reality. It is a step-by-step approach whereby **RSCIs ensure coordination between themselves and with the TSOs**. This also involves using shared, harmonised data and processes.

From this, it is clear that RSCIs such as Coreso already play a crucial role in ensuring security of supply in Europe.

#### **4. Subsidiaries**

The company has no subsidiaries.

#### **5. Events after the end of the year**

No significant events occurred after the end of the financial year.



## 6. Notes to the annual accounts

### 6.1. Introduction

#### Key figures

<b>In thousand €</b>	<b>31 December 2013</b>	<b>31 December 2012</b>
EBITDA*	821.71	654.55
EBIT*	290.11	166.38
Net result (before taxes)	297.49	171.47
Net result (after taxes)	161.83	84.84
Solvency ratio	43.46%	55.73%
Liquidity ratio	94.12%	98.97%

Solvency = equity/total assets

Liquidity = current assets/short-term liabilities

\*EBIT = earnings before interest and taxes

\*EBITDA = EBIT + amounts written off/depreciation

### 6.2. Balance sheet

#### Fixed assets

Fixed assets include the following:

<b>In thousand €</b>	<b>2013</b>	<b>2012</b>
Preliminary expenses	6.52	25.51
Intangible fixed assets	21.92	60.04
Property, plant and equipment	1,646.97	1,334.30
<b>TOTAL FIXED ASSETS</b>	<b>1,675.41</b>	<b>1,419.85</b>

The investments made in 2013 relate to property, plant and equipment totalling €787,150.

Most of these investments (€464,790) consist of IT equipment used in the development of Coreso's activities, including €323,000 for convergence software.

The net book value of fixed assets was €1,675,410 and includes cumulative depreciations at year-end 2013 totalling €1,968,600.



Avenue de Cortenbergh 71, 1000 Bruxelles / numéro d'entreprise 0808.569.630 / [www.coreso.eu](http://www.coreso.eu)

## **Current assets**

'Trade debtors' accounts for €586,090. A total of €510,340 relates to operational fees contracts between Coreso and its shareholders. The remainder of €75,750 represents other invoices issued that are not yet due.

'Other amounts receivable' includes recoverable subsidies and VAT totalling €130,330 plus a total of €156,980 reimbursable social security contributions.

Cash comprises liquidities worth €860,390.

## **Deferred charges and accrued income**

This item comprises operating expenses, such as rents and insurance, to be deferred to financial year 2014 (€171,910).

## **Equity**

As at 31 December 2013, the share capital amounted to €1,000,000, represented by 15,210 shares and fully paid up upon the establishment of Coreso.

Following the positive results for the financial year 2013 (€161,830), a €8,090 appropriation to the legal reserve was booked. The remainder of the distributable profit (€153,730) has been carried forward.

In 2010, a subsidy of €68,780 was received from the European Union in connection with the Twenties project. This amount was booked as a subsidy and transferred to the result in proportion to the depreciation of the investments in question. This amount is booked as a subsidy and transferred to the result in proportion to the depreciation of the investments in question.

An amount of €13,760 was booked to the 2013 results. As at 31 December 2013, the remainder of the capital subsidies amounted to €26,360.

Equity amounted to €1,556,430 after the appropriation of the 2013 result.

## **Debts**

In 2013 the total loan at year-end 2013 was €300,000. The loan was contracted with several shareholders at market conditions, at a Euribor interest rate plus margin.

'Trade debts' at year-end 2013 totalled €883,680. They relate mainly to invoices not yet due totalling €56,040 and invoices receivable totalling €827,650.

Social security liabilities cover a number of provisions such as holiday allowances, bonuses and personnel insurance. The total amount for this item is €469,450.

Tax debts totalled €19,270, comprising €16,330 of VAT payable and €2,940 of taxes payable.





Avenue de Cortenbergh 71, 1000 Bruxelles / numéro d'entreprise 0808.569.630 / [www.coreso.eu](http://www.coreso.eu)

## Accrued charges and deferred income

This item mainly comprises subsidies receivable totalling €352,330.

## 6.3. Income statement

### Operating income

Operating income can be subdivided as follows:

<b>In thousand €</b>	<b>2013</b>	<b>2012</b>
Operational fees	5,539.96	4,757.74
Other operating income	688,16	569.43
<b>Total</b>	<b>6,228.12</b>	<b>5,327.17</b>

The operational fees relate to security analysis services for the CWE grid.

'Other operating income' encompasses income relating to 'D-2 country merge' activity, 'market coupling' and the recovery of withholding tax on personal income.

### Operating expenses

Operating expenses totalled €2,793,590 for 2013 (€2,395,610 in 2012) and relate to the costs of rent, consultants, IT maintenance, representation, and so on  
The increase is mainly due to the rise in consultancy fees (+ €298,580).

### Personnel expenses

This item comprises charges associated with remuneration, i.e. salaries, social benefits and social security costs. The rise from €2,276,920 (2012) to €2,612,730 (2013) is owing to the increase in the number of full-time equivalents from 20,7 to 22,4.

### Depreciation

Depreciation of property, plant and equipment totals €531,600 and is calculated according to the valuation rules approved by the Board of Directors, as indicated in the annual accounts.



Avenue de Cortenbergh 71, 1000 Bruxelles / numéro d'entreprise 0808.569.630 / [www.coreso.eu](http://www.coreso.eu)

### Financial income

Financial income totalled €15,370, of which €680 was generated by cash investments made in 2013. An amount of €13,760 relating to the subsidy was entered under this item.

### Financial charges

Financial charges amounted to €8,000, of which €4,750 pertains to a subordinated loan contracted with the shareholders totalling €300,000.

### Taxes

In 2013, the profit before tax was €297,490. After applying notional interest and taking into account disallowed costs, Coreso's tax expense in 2013 was €137,990.

### Net profit

For 2013, Coreso booked a net profit after tax of €161,830.

### 6.4. Profit for the financial year available for appropriation

At the general meeting of 17 April 2014, the Board of Directors will propose the following distribution of profits:

<b>In thousand €</b>	<b>2013</b>	<b>2012</b>
Profit for the financial year	161.83	84.84
Profit carried forward from the previous year	349.83	269.22
Appropriation to the legal reserve	8.09	4.24
Distribution of the dividend	0.00	0.00
Result to be carried forward	503.56	349.83

### 6.5. Financial instruments

Coreso does not use financial instruments to hedge possible future risks.



Avenue de Cortenbergh 71, 1000 Bruxelles / numéro d'entreprise 0808.569.630 / [www.coreso.eu](http://www.coreso.eu)

## **7. Description of the risks and uncertainties facing the company**

### **Financial risks**

Coreso's funding needs are met by the contributions of its shareholders. To meet its needs, Coreso draws up a budget and reviews it in good time with its shareholders, which are also its main clients. In the event of unforeseen funding needs, Coreso can appeal to its shareholders for the release of extra cash at very short notice. Since its shareholders are also exposed to inherent financial risks, there is a residual financial risk for Coreso if any of its shareholders default. However, Coreso's residual risk remains very low when its shareholders are taken into account.

### **Data quality risks**

In its role as coordinator of Transmission System Operators (TSOs), Coreso performs analyses of cross-border electricity flows, advises TSOs on congestion management, and contributes to Security of Supply (SoS) operations. To perform these tasks as effectively as possible, Coreso relies heavily on data from all the TSOs concerned and on this data being complete, validated according to the agreed acceptance criteria, consistent, accurate and delivered on time. Initiatives are under way within ENTSO-E to put in place a structural framework for the provision of harmonised qualitative data by TSOs. Coreso is actively involved in this.

### **ICT risks**

Coreso is also highly dependent on the continuity of its ICT infrastructure to deliver its services in good time.

The management of the ICT infrastructure, including software applications and their hosting and data storage, is outsourced to external suppliers and service providers. A single supplier acts as the first line of support for troubleshooting any (hardware) issues. All contracts with ICT providers include guarantees on long-term support and maintenance services for all critical ICT components.

The power supply of ICT infrastructure is also backed up by uninterruptible power supply systems in Brussels and Lomme (France).

Coreso had a comprehensive IT audit carried out in line with a work plan for enhancing the company's IT maturity. An upgrade of IT resources is also planned in this connection.



Avenue de Cortenbergh 71, 1000 Bruxelles / numéro d'entreprise 0808.569.630 / [www.coreso.eu](http://www.coreso.eu)

## **HR risks**

Coreso's strength lies in the quality of its staff, exposing the company to various risks, i.e. inadequate skill sets, the strain of work shifts inherent to Coreso's monitoring activities, and FTE turnover. Coreso relies on the pool of experts provided by its shareholders to fill any sudden gaps in human resources and has drawn up plans for joint training with the engineers employed by its TSOs.

## **Risks related to regulatory changes among European TSOs regarding coordination**

The consolidation of international power exchanges following the liberalisation of the European electricity market, combined with the necessity of ensuring overall security of supply in Europe, led to a need for increased cooperation and coordination among European TSOs.

Although decisions will still need to be taken by TSOs on the legal front, on roles and responsibilities, on governance and on the tools or expertise of future European coordination entities, there remains a risk that Coreso may not be sufficiently prepared for the future cooperation and coordination needs of the market and its players. Coreso can mitigate this risk by proactively identifying needs, adapting to be able to meet those needs and positioning itself as a trusted long-term partner.

Furthermore, the need for greater coordination is now widely acknowledged by the various stakeholders. Accordingly, the European Network Codes currently being drawn up explicitly establish the concept of Regional Security Coordination Initiatives (RSCIs) such as Coreso. There are plans to put in place a structural framework with ENTSO-E and other RSCIs.

## **Other risks**

Coreso realises that there may be other risks of which the company is unaware, or that risks currently deemed negligible may become more significant in the future.

## **8. Internal audit**

In accordance with the service agreement concluded between Elia and Coreso, Elia performs an internal audit for Coreso every two years. At the start of 2013, Coreso underwent an internal audit for the second time. During this exercise, the quality management system (QMS) developed by Coreso to better document activities, better meet the needs of its shareholders (the TSOs) and improve the general management of the company was assessed against the ISO9001 standard. Based on the recommendations, Coreso's Management Team put in place an action plan to optimise the QMS. This is being monitored by the Coreso Governance Board.

## **9. Research and development**

Coreso is involved in two European projects:

- TWENTIES, which stands for Transmission System Operation with Large Penetration of Wind and Other Renewable Electricity Sources in Networks by means of Innovative Tools and Integrated Energy Solutions, in which Coreso serves as a platform demonstrating new tools for the coordination of operations with a view to addressing the impact of renewable energies on the grid; and
- iTesla, which stands for Innovative Tools for Electrical System Security within Large Areas, designed to promote the future coordinated and stable operation of the pan-European electricity transmission system: Coreso will provide its expertise to aid the development of the tools needed for effective future coordination.

17 April 2014,



Brigitte Peyron  
Director



Daniel Dobbeni  
Chairman of the Board of Directors

