

FOREWORD BY THE CHAIRPERSON OF THE BOARD OF DIRECTORS

THE ENERGY SECTOR IS ON THE CUSP OF MAJOR CHANGES AND CHALLENGES. THE RISE OF DECENTRALISED ENERGY GENERATION, INCREASING DIGITISATION AND EMERGENT TECHNICAL INNOVATIONS ARE TRANSFORMING OUR SECTOR. WE, THE BOARD OF DIRECTORS, ARE FOLLOWING THESE DEVELOPMENTS CLOSELY.

In 2016, the fast-changing environment in which Elia conducts its activities as a transmission system operator prompted us to devise a more targeted strategy, while remaining fully committed to delivering a reliable, affordable, low-carbon electricity system. A number of interesting future scenarios were developed at both Elia in Belgium and 50Hertz in Germany.

If European climate targets are to be met, the measures taken will need to include the further electrification of our society. This raises a lot of questions. For instance, what impact are changing transport trends having on the electricity grid and how are Elia and 50Hertz responding? How can a grid integrate millions of prosumers – customers who produce electricity, as well as consuming it? How can we guarantee security of supply at all times when a growing share of our energy mix is made up of intermittent renewable generation sources? By way of illustration, the share of renewables in the energy mix of our German subsidiary, 50Hertz, averaged as much as 50% in 2016 – a world record!

INCREASING COMPLEXITY AND GREATER DECENTRALISATION

European energy and climate regulations have triggered a sharp rise in the share of renewable energy and decentralised energy generation. Due to the spread of digitisation and the emergence of new technologies and business models, end consumers – be they households, companies or industrial sites – are gradually taking on a more central role in energy supply.

Electricity transmission is evolving into a two-way flow, where both supply and, increasingly, demand can be controlled. As such, managing the distribution and transmission systems is now more complex than ever before.

Among the many new needs resulting from the energy transition is the requirement for even more flexibility. Custom digital platforms have been developed to allow new market players to offer flexible capacity, while Elia facilitates demand-side management and concentrates its efforts on the impact of digitisation on the energy system and energy markets.

INVESTING IN INFRASTRUCTURE AND INNOVATION

Electricity remains a physical business, where electrons are sent through a cable. As long as this connection with centralised and decentralised generation units remains, there will always be an important role for energy transmission.

There is also a clear need for additional interconnections so that Elia can quickly access the cheapest renewable energy from throughout Europe and maintain security of supply. In so doing, Elia contributes to the competitiveness and sustainability of our economy.

These three aims – security of supply, affordable energy prices, and sustainable supply of low-carbon electricity – are reflected in Elia's broad investment programme, which includes new or upgraded on- and offshore interconnections between Belgium and the United Kingdom, Belgium and Germany and Belgium and the Netherlands. 50Hertz is undertaking an equally ambitious grid enhancement programme, which revolves around integrating large volumes of on- and offshore wind energy and upgrading north-south transmission connections.

At the same time, we are looking into ways to incorporate technical innovations like energy storage and thinking about data management solutions.



Miriam Maes
Chairperson of the Board of Directors of the Elia Group

CLOSER COOPERATION AND COORDINATION

This past winter, power generation from nuclear sources in France hit a historic low, leaving the country especially vulnerable to cold spells. This situation served to highlight, once more, the vital importance of international cooperation. How can we work together to ensure that prices in the euro-zone remain low and the lights stay on?

In recent years, Elia has made a substantial contribution to developing advanced methods of optimising cross-border interconnection capacity. We can no longer view Belgium as an isolated country. This clear commitment to European cooperation is also reflected in our German subsidiary, 50Hertz. Thanks to the international dimension of our activities, combined with our extremely ambitious investment programme, we are working more closely than ever before with neighbouring countries and their system operators.

NEED FOR A POLICY THAT PROVIDES SOLUTIONS

In view of all the changes that are heading our way, we need a policy that provides optimal solutions to steer the energy transition in the right direction. How can everything be regulated? Who is going to manage the entire chain? Who will be responsible for data management and intellectual property?

In November 2016, the European Commission published the Clean Energy for All Europeans package, in which it calls for a comprehensive shake-up of the energy market. Europe intends to adapt exist-

ing regulations to the energy transition. As challenging as some of the Commission's operational proposals may be, we fully support its pursuit of a European Energy Union. We are actively involved in these efforts and will follow future developments with interest.

The role of Elia and 50Hertz will doubtless change in future, but I see major opportunities for both companies. After all, the increasing decentralisation of the electricity market has put the transmission system operator in the perfect position to keep track of an ever more fragmented energy supply chain and proactively contribute to an efficient, integrated energy market.

THANK YOU

As Chairperson of the Board of Directors, I would like to offer my sincere thanks to the entire staff of Elia and 50Hertz for their unwavering commitment and their admirable professionalism. Thanks too, to my colleagues on the Board of Directors – including the two new directors who joined in 2016, Peter Vanvelthoven and Michel Allé – for their valuable support and their dedication.

Finally, the Elia Group would like to thank its customers, its shareholders, the federal and regional regulators and the regional, federal and European authorities.

Sincerely,

Miriam Maes
Chairperson of the Board of Directors of the Elia Group

“Electricity transmission is evolving into a two-way flow, where both supply and demand can be controlled. The energy transition has created a need for additional flexibility.”



“Increasing decentralisation has put the transmission system operator in the perfect position to keep track of an ever more fragmented energy supply chain.”