Editorial

Regulatory and technical challenges for the European electricity and gas transmission system

Over the last twelve to eighteen months we have seen signs of major changes to come in the gas and electricity markets: the publication of the Green Paper, the holding of lively debates within the European Parliament and between the Ministers of the Member States on a secure, sustainable and competitive energy market, the announcement of a third package of Directives with concrete measures to reform the energy sector, unprecedented merger and acquisition activities and, more recently, the signature of a Pentalateral agreement for improved integration of the electricity market by the major stakeholders of the Central West European region.

This fourth edition of the *European Review of Energy Markets* tackles several aspects of currently debated issues from different points of view. With the objective of reducing potential discrimination, optimising the use of existing infrastructure and facilitating market integration, the first paper, *A Regulatory Framework for the Electricity and Gas Industry,* suggests, from a regulatory perspective, the creation of regional Independent System Operators. A somewhat similar model has been developed in North America, where the electricity industry has undergone significant changes in the last decade. This model is chronicled in the second paper, entitled *Challenges and Opportunities for Improving Bulk Power System Reliability in North America.* It focuses on the evolution of the North American Electric Reliability Corporation (NERC), and how it is assuming its new role as the Electric Reliability Organization with the possibility of comparing the North American and European situations regarding respective roles and responsibilities, focusing on the reliability of the power system.

While much emphasis has been placed on the electricity market, recent events on the geopolitical scene have reminded us that gas is even more important, since it will remain a major primary energy source for many years. The third paper, entitled *A Contribution to the Current EU Debate on*

Energy - Focus on the European Gas Market, focuses on Europe's increasing dependency on imports of gas from far away regions, leading to major investments in order to diversify supply sources and transport routes. As with electricity, the integration of 27 national gas markets and the importance of a positive investment climate and a stable regulatory and political framework are put forward as prerequisites for achieving the objectives outlined in the Commission's Strategic Energy Review.

The fourth paper, entitled *It is time for Germany and France to clearly join forces*, brings us back to where it all started: the political vision and will necessary to achieve a European energy market. Provided that energy and environmental policies are clearly established, regulations and market issues will find solutions, whereas they are currently stranded because of an unprecedented situation, in which three major and somewhat antagonistic constraints are forced to co-exist. These three constraints are: "industrial competitiveness", the ultimate goal of the liberalisation process; "security of supply", which was taken for granted until serious incidents happened around the world; "combating climate change", reflecting recent awareness of the need to reduce GHG emissions immediately. Tackling these three antagonistic constraints in various space and time dimensions requires a coherent, long-term energy and environmental policy that will give visibility to all players.

The fifth paper, entitled *Regulatory and technical challenges for the European electricity market*, elaborates on these constraints from a Transmission System Operator point of view. As a large proportion of the Member States' power systems will need to be replaced over the next 10 to 20 years, policy makers and market parties have the unique opportunity to shape Europe's future energy infrastructure. The challenge for transmission system operators should, however, not be underestimated. The Priority Interconnection Plan published recently by the European Commission identified some €6 billion of new electricity transmission investment by 2013 for projects of European interest alone. This amount is only part of the needs for European networks, as the International Energy Agency projections for transmission network investments in Europe are around $159 billion between 2005 and 2030.

The need to financially support the development of an effective electricity infrastructure is discussed in the next paper, entitled *Pushing European Power Transmission: Private Investment in Priority Interconnections?* It states that in order to select the optimal investment projects from a social perspective, a regional assessment of required projects is needed in order to balance

national and international interests. The importance of transparent procedures and criteria which are applied for regulatory approval of new interconnections is put forward as a prerequisite for private investors and transmission system operators. The option of merchant investments in transmission is discussed from a common public interest and long-term efficiency point of view.

Regulatory-based remedies addressing shortcomings of the current situation are addressed in the penultimate paper, entitled *The 'f-o-u-l-s' approach to unbundling in the electricity sector: pitfalls and legal risks of structural regulatory intervention*. Legal issues arising out of future legal provisions imposing separate ownership of the grid itself and other activities in the value chain are discussed extensively. Another means of achieving such separation is presented, using the example of Italy, where, by enacting a law that implemented a mandatory reduction of the market share of the state-owned incumbent, actual unbundling was achieved. The author points out that the Italian experience might be difficult to replicate in other Member States where the incumbent is a private company.

The last article, entitled *European internal electricity market – What next?*, contemplates the heterogeneous nature of electricity market structures worldwide. While North America seems to be accepting of some states pursuing competitive market arrangements while others rely on regulated vertically integrated utilities, the Middle East and Asia face both major restructuring and huge investments supporting their economic development. Europe, on the other hand, is somewhere between the old regulation paradigm and the new fully integrated gas and electricity markets. This paper deals with a number of selected topics from the EU energy package that relate to the establishment of an internal electricity market and functional competition.

As guest editor, I thank all authors for their enthusiasm and willingness to spend their precious time elaborating on the complex topics tackled in this fourth edition of the *European Review of Energy Markets*.

Happy reading!
Daniel Dobbeni
Guest Editor