Editorial: Prospects for Integration and Liberalisation in South East Europe's Electricity Market

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Editorial

Prospects for integration and liberalisation in South East Europe's electricity market

The papers in this special issue result from a project on electricity market reform in South East Europe led by the ESRC Centre for Competition Policy at the University of East Anglia, bringing experts from the region together with internationally based scholars from the US, UK and Western Europe. Many of the papers were presented at a workshop in Sinaia, Romania, in July 2007. They include an examination of cross-cutting thematic issues such as electricity generation, transmission, Europeanisation, regulatory institutions, evaluation of the evidence on previous reforms elsewhere in the world, and the impact of reform on consumers; as well as country studies covering the region, with a view to an assessment of the impact and likely success of the reforms.

As is well known, during the 1990s many of the countries of South East Europe experienced the collapse of communist systems and, in the Balkan states formerly part of the Yugoslav Republic, military conflict subsequently ensued. In addition to the heavy human cost, the conflict damaged and in places completely destroyed electricity generation and transmission infrastructure that was already suffering degradation due to economic decline. However, the region is now entering a period of economic growth and investment opportunities, and much attention is focused on the energy sector and, particularly, on electricity, which is vital to economic growth and prosperity of the region.

This special issue is timely, coming as efforts to create an Energy Community of South East Europe (ECSEE) press ahead. The Energy Community Treaty, signed in Athens in October 2005, creates a legal framework for an integrated regional energy market between the European Union (EU) and nine South East European partners – Albania, Bosnia–Herzegovina, Bulgaria, Croatia, Montenegro, the Former Yugoslav Republic of Macedonia, Romania, Serbia and the United Nations Mission on behalf of Kosovo.

Many of these countries are new or aspiring members of the EU. The creation of the regional market aims for a smooth integration into the EU internal electricity market by 2010, committing the countries to adopt European Community law in the fields of energy, competition and environment, and to pursue the broader fundamental objectives of EU Energy Policy: competitiveness, security of supply and sustainability. In this issue, contributions by Pollitt, and Deitz, Stirton and Wright, detail those obligations and consider the capacity of States to meet the challenges posed by the application of the EU model of energy regulation.

A number of challenges are common to many of the countries in the region. In their monopolistic energy markets, they have committed to gradually liberalising power markets, restructuring energy companies, unbundling vertically integrated utilities to create transmission system operators, and eventually to create distribution system operators. In some States, the introduction of competition at a national level may be unfeasible as they comprise small geographic markets, or may have certain topographical features, such as remote, mountainous or island areas, which make connectivity difficult.

An important precondition to an effective market is the rebalancing of tariffs to cost-recovery levels, but this will cause prices to rise throughout the region, which is likely to be unpopular among household customers and for some may result in fuel poverty. In order to make the reforms succeed, payment discipline needs to be enforced, but this may also require the introduction of social safety nets that are currently lacking in many countries affected.

A stable legal framework is necessary to attract investment. All States have established national energy and regulatory authorities; however, in some cases funding, resources and expertise may be an issue. As Pollitt indicates, one lesson from the evidence on reform internationally is that institutional and administrative capacity is a key factor in the success of reform. Deitz, Stirton and Wright build upon this observation, arguing that the quality of governance varies substantially across the region, but in most cases lags behind that of long-standing members of the EU.

The environmental aspects of reform and the trade-offs involved in different fuel options, as discussed by Hooper and Medvedev, should not be underestimated. The South East European (SEE) signatories to the Energy Community Treaty are required to implement EU environmental legislation, including the environmental impact assessment directive, and to provide plans on how they will implement renewable energy sources. There are also obligations to reduce sulphur emissions, and countries should aim to accede to the Kyoto Protocol and try to implement the EU pollution prevention directive.

Thematic papers

In their article on Europeanisation, Deitz, Stirton and Wright outline the challenges posed by application of the EU model of energy regulation and imposition of the acquis communautaire on accession and ‘pre-accession’ states, and the ability of states to meet those challenges. The regulatory alignment put in place through the Energy Community framework, encouraging co-operation on technical issues, is expected to create spillover effects in other sectors of reform. The authors’ analysis of governance
in SEE countries using the World Bank’s quality of governance indicators suggests a lower overall performance of governing institutions in SEE, compared with countries of the EU25. The EU model confers certain institutional resources, but at the same time imposes significant costs of compliance. It remains to be seen which of these two opposing factors will dominate, but the analysis indicates that for some countries in the region, regulatory reform alone may not be sufficient. It suggests that different groups of countries should approach reform differently according to institutional capacity, and a ‘one size fits all’ solution may not be appropriate. This may have implications for targeting technical assistance and capacity building measures.

Pollitt agrees that it will be a substantial, but worthwhile, challenge to create a workable supranational electricity market in the region. He relates the empirical evidence on electricity sector reform in other countries to the current situation of the SEE electricity market. Noting the very different contexts for electricity restructuring in different country settings – especially the focus on improving efficiency in developed countries versus improving reliability, access, and coverage in developing countries – he questions whether “the EU electricity reform model in its entirety is the best for SEE.” The paper discusses the institutional context of electricity reform, including emerging good practice in the regulation of national electricity markets in the EU, demonstrating the emphasis placed on independent regulation of the electricity sector in the EU reform model.

Hooper and Medvedev provide an overview of the generation of electricity in 10 countries in South East Europe during 1995–2004 and explore the potential for the integration of the electricity markets in SEE. They consider the environmental impact of electricity generation and identify some of the key trade-offs between different policy objectives. They conduct a cross-country analysis of electricity production based on different types of fuel used. On the whole the region has a low level of gasification combined with few nuclear power generation facilities, while some countries heavily rely on hydroelectric generation. Differences in countries’ resource endowment and the possibility of intertemporal substitution between electricity generated from various fuels could stimulate a regional trade in electricity. They show that as an alternative to nationally independent energy policy, regional trade could displace a proportion of the substantial investment in generation facilities required to avert serious supply shortages.

As Pollitt’s paper notes, cross-border transmission is clearly a crucial element to an integrated regional energy market. Vailati presents the current status of electricity transmission grids in the ECSEE, including the capacity of interconnections among countries and the current level of cross-border electricity trades. He draws attention to the political and legal aspects of transmission, explaining the impact of the Energy Community Treaty and the acquis communautaire on the transmission sector. His contribution discusses the present status of transmission unbundling, the trial of a coordinated mechanism for cross-border capacity allocation and, perhaps most importantly, the implementation of an inter-TSO compensation (ITC) mechanism. Finally Vailati suggests the need and criteria for electricity transmission investments in the ECSEE to ensure future success.

At the other end of the electricity chain, Waddams Price and Pham examine the effect of current electricity market reform on residential consumers, using a sequence of hypothetical scenarios which the reforms are likely to bring about. These include raising tariffs to cost reflective levels and introducing a standing charge to recover 10% of the revenue to mirror cost reflective structures. In particular they analyse the effects of each scenario for Albania and Bulgaria, where household expenditure surveys and electricity tariffs are available according to expenditure decile and region, before comparing these results to findings from a previous study of Turkey. The impact of reforms varies considerably, depending on how far current tariffs reflect the long run marginal costs of supply, but the authors show that some likely reform scenarios will adversely affect low-income households more than others. This could have implications for policy decisions about social welfare, a concern taken up in the papers on Macedonia and Montenegro.

**Country specific issues**

Brian Scholl outlines electricity reform efforts in Bosnia–Herzegovina, which suffered the greatest infrastructure and human loss during the Balkans conflict. One legacy of this is a government system largely duplicated along ethnic lines with a weak central state. This pattern of duplication carries over to the electricity sector and creates incentives that hinder its development. In this context, sectoral reform has proved difficult, with almost all effort devoted to the sector since 1996 channelled towards restoration to pre-war operational conditions and overcoming opposition to reform. Nevertheless, Bosnia’s efforts at reforming the electricity sector are underway and substantial progress has been made. Lingering questions about the success of reforms essentially reduce to questions about the future of Bosnia itself and the ability of the central state to consolidate power while preserving the rights and interests of all ethnic groups.

Meanwhile, Bulgaria, as a new member of the EU and, with Romania, one of the largest electricity producers among the South East European countries, has undertaken major restructuring of its energy sector and has fully liberalised its electricity and gas markets. It now faces the challenge of creating a functioning competitive energy market. The government has already privatized seven power distribution companies. Peter Ganev describes how the energy sector experienced significant problems in the first half of 2007 due to lost production capacities and regulatory failures on the electricity market. Excess price regulations on the market of electricity supplies to households, coupled with insufficient liberalisation of imports and exports, create unfavorable conditions for power producers and large electricity users. He notes the apparently incompatible targets the energy regulator has tried to achieve since liberalisation for maintaining low electricity prices for households in response to political pressure, low power generation prices amid rising input costs, and market opening in compliance with EU regulations. However, Bulgaria also has the lowest electricity prices (in absolute terms) in EU27.

As a longer standing EU Member State, Greece started sector reform in 2001, but Ekaterini Iliadou reports that Greece’s electricity market is still developing slowly. This is partly related to the persisting dominance of the state-owned incumbent company, PPC, which holds more than 98% of consumers. A second reason is heavy dependence on indigenous lignite firing generation, while being located in the periphery of the EU internal electricity and gas markets. In addition, Greece has a number of non-interconnected islands and mountainous regions which may operate as separate geographic markets. Iliadou finds that development of competition through gas-firing generation by new entrants has been the priority adopted by State and Regulator’s policies. However, the gas supply market in Greece and in the region is still lacking.

Further revisions of the existing legislation are currently under consideration in order to comply fully with EU legislation, given that the European Commission issued a ‘reasoned opinion’, the first step in infringement proceedings. This demonstrates the difficulty which existing EU Member States have in implementing the regulation model and hints at the challenges for their SE European neighbours.

In Macedonia, in contrast, there has been privatisation in the sector, and today the government has a majority stake in very few companies. Rubin Taleski asserts that the main problems arise...
from thefts and low payment discipline (with state institutions among the problem consumers). Prices do not match costs – for example in 2003 when VAT for electricity increased from 5 to 18%, prices (without VAT) for residential customers were lowered by approximately 5%. Once prices rise to realistic levels, Taleski suggests that sustainable social support will need to be developed and indicates various options to achieve this.

Patricia Silva, Irina Klychekova and Dragana Radovic take up the problem of fuel poverty in Montenegro. Focusing on electricity tariff reform, they analyse the environmental and social impacts of an increase in residential electricity tariffs contemplated – which is expected to range anywhere from 40 to over 100%. In line with Waddams Price and Pham’s research, they show that such a significant price rise will impose a heavy burden on poor households and it may adversely affect the environment. A simulation of alternative policy measures analyses the impact of different tariff levels and structures, focusing on the poor and vulnerable households. Higher electricity prices could also significantly increase reliance on fuel wood for space heating, bringing about adverse environmental effects. The policy implication is that the level of fuel wood consumption should be carefully monitored, and the Government should combine the tariff reforms with a carefully evaluated set of policy measures to mitigate the effect of the electricity price increase on the poor.

Oana Diaconu, Cherepoge Oprescu and Russell Pittman discuss Romania’s role as a net exporter of electricity to the SE Europe region with the completion of another nuclear generator and improvement in capacity for international transmission. Romania has committed itself to an electricity restructuring plan that includes vertical separation, but plans remain uncertain regarding the horizontal restructuring of generation. Among the more important issues yet to be decided are how hydro capacity will be allocated – it accounts for more than 1/4 of capacity and enjoys low costs – and how much thermal generation enterprises will be created, and with what assets. With more than half of the thermal capacity accounted for by combined heat and power plants and with a winter demand peak for the foreseeable future, there is a real danger of inflexibility and a lack of competitiveness in a liberalised wholesale electricity market.

Sandra Jednak, Dragana Kragulj, Milica Bulajic and Russell Pittman discuss the challenges for Serbia. Its electric power infrastructure has become technologically obsolete, and significant investment and active State effort are necessary for its reconstruction. Operative efficiency is at very low level. In addition, Serbia has not yet decided whether the public enterprise Serbian Electric Power Industry will be privatized, and if so when and under which model. The particular case of Kosovo and the United Nations interim mission has meant that Serbia cannot access some of the power plants and coal mines upon which it relied in its former territory.

The Slovenian electricity market has been partially opened since 2001, pre-dating its EU accession. Nevenka Hrovatin, Jelena Zoric and Russell Pittman assess the electricity reforms carried out so far, comprising market liberalisation, unbundling of activities, allowing regulated third party access, formation of an organised power market, adoption of incentive based price-cap regulation and establishment of an independent regulatory body. The challenge that remains to be addressed is how to enhance competition in the electricity market with a net importer position and limited cross-border capacities. Envisaged investments in generating and cross-border capacities will partially close the gap between domestic generation and consumption. Furthermore, as Slovenia is one of the EU member states with the largest state ownership in the electricity sector, privatisation of electricity companies is envisaged in the near future.

Finally, Necmidin Bagdadioglu and Necmi Odyakmaz note that Turkish electricity reform has progressed slowly due to internal resistance against privatisation, but gained momentum after the Electricity Market Law of 2001, prepared in line with the EU energy acquis with an eye to accession negotiations, which established the required institutional and legal framework. Although the eligibility threshold has reached 39% market opening rate, the dominant position of the State both as owner and decision-maker is still the major problem in the sector. Currently Turkey is self-sufficient in electricity, but is likely to face shortages in 10 years if growing demand is not met by either hastening the liberalisation process, or joining the South East Europe Electricity Market. Due to the large size of its market, Turkey – unlike many of the other countries in the region – has a genuine choice between integration in the regional energy market and a purely domestic reform process. However, as Bagdadioglu and Odyakmaz show, for a number of primarily political reasons, the path of regional integration is likely to prove the most attractive.

Prospects for the energy community?

As this special issue as a whole demonstrates, there are a number of obstacles and challenges to the establishment of a viable integrated energy market. These include the short-term domestic political costs of reforms which will lead to increased tariffs for customers, including vulnerable consumers, as well as the ambiguous effects of surrendering an important area of national policy to the supranational level. While there are certainly benefits to establishing energy policy on a regional basis, as already noted, this approach also raises questions about the appropriateness of applying the EU energy model in its entirety to the region, and the technocratic challenges of compliance with this model.

Only time will tell how well the regional energy market and its participant countries will rise to these challenges. Given the delays and difficulties in establishing a EU Single Market in energy, the EU itself is viewing regional markets as a way forward. The bold political, technical and economic experiment of the Energy Community of South East Europe will serve as an example from which lessons can be drawn.

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