

Problems in Electricity Sector Restructuring Policies in Some European Countries in Transition

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Abstract-- In this article a critical study of the restructuring policy in electricity sector in South East Europe (SEE) countries in transition, corroborated with some typical examples from Croatia, is given. Being one of a number of European countries passing through processes of economic transition from socialist to market-based economy, Croatia has experienced quite a few problems in restructuring electrical energy sector, held along with fundamental transformation of the society as a whole.

In particular, this work is concentrated on interactions between various factors and agents like the state and its sector policies and strategies, supra-national legislation, EU accession, institutional environment, and companies involved in electricity sector.

The main conclusions are: (i) SEE countries in transition have mostly reformed their electricity legislation, but still significant problems in implementation of the market rules and principles remain unresolved; (ii) virtually all unresolved issues can be clearly attributed to rigid retail price controls that have been kept throughout the region; (iii) thus, the only possible way to finish the reform of the electricity sector in these countries successfully is to allow all market participants to do business under normal conditions, which seems to be rather difficult for the governments of SEE countries.

Index Terms-- Electricity sector restructuring, countries in transition.

I. INTRODUCTION

IN this article we examine main sources of problems in restructuring of the electricity sector in South East Europe (SEE) region. For the purposes of this work, by the SEE region we understand the following nine countries: Albania (AL), Bosnia and Herzegovina (BH), Bulgaria (BG), Croatia (CRO), Macedonia (MAC), Montenegro (MN), Romania (RO), Serbia (SER), and Slovenia (SLO). Six of these countries (BH, CRO, MAC, MN, SER and SLO) were established following the demise of former Yugoslavia, after a series of political turmoil of last two decades. Three countries (BG, RO and SLO) are members of the European Union (EU) from 1 Jan. 2007, while Croatia is currently in a mature phase of accession negotiations. Macedonia is a candidate country.

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II. BASIC MACROECONOMIC FACTS FOR SEE COUNTRIES

The main purpose of this chapter is to expose basic macroeconomic developments in the SEE since the major political processes of post-socialist transition took place in 1989. While most of researches are familiar with the notion of *transition depression* through which the transition countries were passing mostly during the nineties, sometimes the depth of this depression is not sufficiently appreciated. Fig. 1 shows the real GDP time series for the SEE countries from 1989 to the present. It is clear that all these countries experienced a rapid slump of the economy during first five years of transition. In some of the countries, especially in Bosnia and Herzegovina, Serbia and Montenegro, the crisis had really disastrous proportions. These economies have not even returned to the 1989 levels in terms of real GDP. Regarding the recovery from transition depression one can spot three distinct groups of countries within SEE: Albania and Slovenia were the first to recoup and start with significant economic growth. Bosnia and Herzegovina, Montenegro and Serbia clearly lay behind the rest of the region, at least regarding economic recovery. Between these two extremes are Bulgaria, Croatia, Macedonia, and Romania. However, such a brief analysis is not entirely sufficient to represent economic status and potentials of the SEE countries.

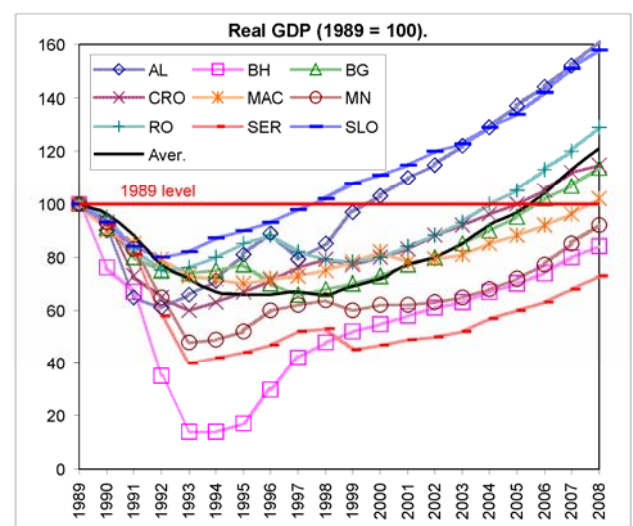


Fig. 1. Real GDP in SEE countries from 1989 to 2008. Source: EBRD [1].

TABLE I

BASIC SEE MACROECONOMIC FACTS. SOURCES: EBRD [1], WORLD BANK [2].

| Country | Inhabitants (millions) | GDP (current US\$, billions) | GDP per capita (US\$) | GNI per capita (US\$) | GNI per capita PPP adjusted (US\$) | Poverty rate (%) with poverty line at 4.30 US\$ a day per capita |
|---------|------------------------|------------------------------|-----------------------|-----------------------|------------------------------------|--|
| AL | 3.18 | 10.57 | 3320 | 3290 | 6580 | 71 |
| BG | 7.64 | 39.55 | 5180 | 4590 | 11180 | 33 |
| BH | 3.77 | 15.14 | 4020 | 3790 | 7700 | N/A |
| CRO | 4.44 | 51.28 | 11550 | 10460 | 15050 | 4 |
| MAC | 2.04 | 7.59 | 3720 | 3460 | 8510 | 24 |
| MN | 0.6 | 3.56 | 5930 | 5180 | 10290 | N/A |
| RO | 21.55 | 135 | 6260 | 6150 | 12300 | 58 |
| SER | 7.39 | 41.58 | 5630 | 4730 | 10210 | 42 |
| SLO | 2.02 | 45.45 | 22500 | 20950 | 26610 | N/A, but surely the lowest |

Table I shows some basic macroeconomic facts for the SEE countries. To assess their real economic strength one must look at national income indicators, as well as poverty features. The latter are important for our analysis because the policies of electricity sector restructuring in most of the SEE countries are still heavily influenced by great social tensions which are associated with poverty.

Regarding the sizes of SEE countries' economies, it is clear that GDP figures basically follow population sizes but for Slovenia and Croatia whose economies are much bigger in proportion to their populations. One can group SEE countries in three sets relative to their economy sizes: (i) Romania is the only large economy, exceeding 100 billion US\$ of GDP; (ii) Bulgaria, Croatia, Serbia and Slovenia are mid-sized economies with GDP within the range of 40-100 billion US\$, while (iii) Albania, Bosnia and Herzegovina, Macedonia and Montenegro are all well below 40 billion US\$.

Gross national products and incomes show that only Slovenia can be counted as a high income country, while Croatia took its place among upper middle income nations. Romania and Bulgaria apparently have potentials to grow shortly from middle to upper middle grade, but they still have serious problems with severe poverty, as well as the rest of the SEE countries except for Slovenia and Croatia.

Recently, in 2008 the Republic of Kosovo was established after separation from Serbia, but since statistical or any other data for this new European state and its economic agents relevant for research presented in this paper virtually do not exist, it is not included in here.

European Bank for Reconstruction and Development (EBRD) monitors the developments in the region (and wider) and gives scores to the countries related to their success in achieving goals in several areas of economic life. These indicators have already been used for general assessment of transition countries' position regarding reform steps that are believed to have significant influence on electricity sector reform (see [4]). There are three areas in which the SEE countries in general perform rather poorly: Enterprise restructuring, Competition policy and Non-bank financial institutions. At least former two criteria have significance for the electricity sector reform. Additionally, Infrastructure

reform indicator is on average a bit better, but is similarly distributed as Enterprise restructuring among the countries. Four countries (Bosnia and Herzegovina, Montenegro, Serbia and Albania) have particularly bad scores for these indicators. Competition policy is assessed as very poor in the whole SEE region, except maybe in Bulgaria. This could be one of the key contributing factors as it comes to the electricity sector reform.

However, the Privatisation indicators as well as Price liberalisation and Trade and forex system show highly assessed levels of performances throughout the region, indicating advanced stages of transition processes. These high scores are somewhat puzzling in context of electricity reform, since they obviously do not correspond to the situation in the sector, especially regarding liberalisation of pricing systems and regional market integration [4].

III. ISSUES IN ELECTRICITY SECTOR REFORM IN SEE

The key political force that drives electricity sector reform in the SEE countries is the Energy Community Treaty [5], signed by the European Community (EC), Albania, Bulgaria, Bosnia and Herzegovina, Croatia, Macedonia, Montenegro, Romania, Serbia, and The United Nations Interim Administration Mission in Kosovo. It entered into force on 1 July 2006. Its primary goal is to implant the standard EU reform process, as set by relevant EU energy legislation and competition law, into the SEE region. As cited from Community's web site [6],

"The general objective of the Energy Community is to create a stable regulatory and market framework in order to:

1. Attract investment in power generation and networks in order to ensure stable and continuous energy supply that is essential for economic development and social stability;
2. Create an integrated energy market allowing for cross-border energy trade and integration with the EU market;
3. Enhance the security of supply;
4. Improve the environmental situation in relation with energy supply in the region;
5. Enhance competition at regional level and exploit economies of scale."

The reform processes within the SEE countries started between ten and fifteen years later than in the developed EU member states. Moreover, the overall economic situation in most of the SEE countries has been much worse than in EU. Thus, it is maybe unrealistic to expect the SEE nations to achieve the desired pace of the sector liberalisation in a very short time. On the other hand, there are clear economic interest from both EU and SEE to integrate into a common market as soon as possible. These interests are so high and important that a number of SEE countries are facing a challenge of choosing between a rapid alignment with EU energy *acquis* and competition law, and trying to keep social tensions that could accompany such a major reform under control.

There is a common belief that the primary goals in restructuring the electricity sector are somewhat different in

developed than in developing countries. The main motivation in developed world is to increase economic efficiency of the industry. Developing countries would have to reform the sector first to increase availability and security of supply [4]. However, the SEE countries already committed to apply market oriented rules through the Energy Community Treaty.

It is very important to note that all six SEE countries that are still not member states of the EU, *actually internalised the whole EU energy acquis* by signing to the Treaty and ratifying it in their parliaments. (Usually, when a state parliament ratifies an international treaty, it becomes a national law with higher legal power than domestic legislative acts.) Thus, due to Treaty provisions, the following common features of the new market architecture already *had* to be in place:

- *legal* vertical separation of competitive parts of the industry from natural monopolies (transmission, system operation and distribution), as required by Articles 10, 11 and 15 of the EC directive 2003/54/EC [8], which was introduced by the Article 11 of the Treaty;
- regulation of natural monopolies by independent regulatory authorities, as imposed by Article 23 of the 2003/54/EC directive;
- market integration on a regional level, according to Title IV of the Treaty.

Joskow in [7] gives a comprehensive list of standard measures that have to be adopted in order to have the reform successfully done. The three above mentioned features from the Treaty are basically among them, and there is a number of additional ones. We state them briefly here, with obligatory legal provisions imposed by the Treaty indicated in parentheses where applicable:

- privatisation of state-owned utilities (not mandatory);
- horizontal integration of network and transmission operations to meet the "natural" geographic scope of wholesale markets (which can be drawn from the Article 42 under Title IV of the Treaty);
- creation of public wholesale markets;
- promotion of a fair third-party access to the networks, and a transparent market-based congestion management (the former is mandatory by virtue of Article 20 of the 2003/54/EC directive, while the latter is obligatory by virtue of Article 11 of the Treaty, extending the Regulation 1228/2003/EC [9] to the contracting parties);
- unbundling of retail tariffs in provide a transparent information to retail customers on costs structure (Article 3 of the 2003/54/EC directive);
- designating the last resort supplier, which may be the distribution company (Article 3 of the 2003/54/EC).

Joskow emphasizes the need to create strong regulatory agencies with full powers and competences to be able to overcome an information asymmetry in relation to the companies they are supposed to regulate. While accountable regulation free from daily political intervention is an essential part of each market design, it is not easy to get it right in a practical sphere.

There is a study showing that even in European countries

with advanced energy law and its implementation (EU-15 plus Norway) there is a variety of existing regulatory systems, making it hard to harmonize regulation on the EU level [10]. It would be surprising if the contracting parties of the Energy Community succeeded to do it before the rest of Europe. Most of the EU regulators have more than just an advisory role in the system. We have briefly reviewed national energy laws of all nine SEE countries to check whether the regulators were fully entrusted with tariff setting because it could be most sensitive from the politics standpoint. At the first glance, the results look rather encouraging: only Croatian and Serbian regulatory agencies have to seek government's approval for the tariffs they propose. However, the true question is what happens in reality in other seven countries regarding possible informal influences and pressures from political establishment when it comes to the issues with relevance for daily politics. It is virtually impossible to investigate such questions from publicly available information, without personal interviews with people holding positions in regulatory boards. We did not engage in such an activity because it would go beyond the intended scope of this article.

It is interesting to see how the Energy Community Secretariat looks at the *acquis* transposition to the national law of the SEE countries. Scores for key elements of the electricity *acquis* are listed in Table II, taken from the Secretariat report of may 2007 [11]. This report is based on a detailed study [12] finished in September 2006. In May 2008 the Secretariat issued another report, but it was focused merely on legislative developments, as well [13]. Apparently, Bulgaria, Croatia and Romania were the most successful countries in transposing the *acquis* (Slovenia is not listed in the report, but it can be deemed as the most advanced country in that respect). However, one must be cautious about legislation transposition, because the market reality does not match this seemingly high level of legislative alignment achieved even in

TABLE II
TRANSPOSITION OF KEY ELEMENTS OF THE EU ELECTRICITY *ACQUIS* TO NATIONAL LAW IN SEE COUNTRIES. SOURCE: ENERGY COMMUNITY, [11].

| Country | Public service obligation & customer protection | Monitoring of security of supply | Technical rules | Generation | Unbundling provisions & access to accounts | Third party access | Market opening | Cross border trade mechanism | Σ (country) |
|----------------------------------|---|----------------------------------|-----------------|------------|--|--------------------|----------------|------------------------------|--------------------|
| AL | 3 | 4 | 4 | 3 | 2 | 4 | 1 | 2 | 23 |
| BH | 2 | 4 | 4 | 3 | 3 | 4 | 4 | 2 | 26 |
| BG | 3 | 4 | 4 | 4 | 3 | 4 | 4 | 2 | 28 |
| CRO | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 2 | 29 |
| MAC | 2 | 4 | 2 | 4 | 4 | 4 | 1 | 2 | 23 |
| MN | 2 | 4 | 2 | 4 | 3 | 4 | 1 | 2 | 22 |
| RO | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 28 |
| SER | 3 | 3 | 2 | 4 | 3 | 3 | 1 | 2 | 21 |
| Aver. | 2.6 | 3.9 | 3.3 | 3.6 | 3.1 | 3.9 | 2.5 | 2.1 | 25 |
| 1 = Process has started recently | | | | | 2 = Some provisions are available | | | | |
| 3 = Some provisions are missing | | | | | 4 = All provisions are available | | | | |

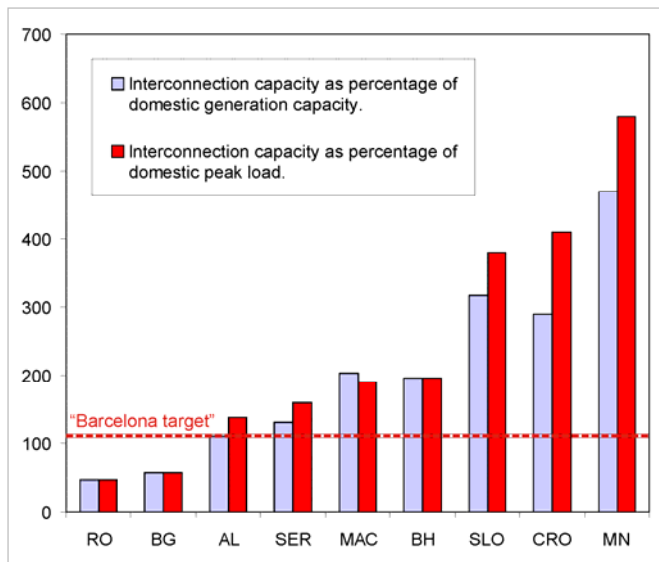


Fig. 2. Interconnection capacities in relation to domestic generation capacity and domestic peak load (2002). Source: HEP Transmission System Operator.

countries that will not join the EU anytime soon. The real question is how much of transposed *acquis* is actually being implemented.

Report [12] seems to be the most thorough analysis of both legal and factual situation regarding electricity markets in SEE countries. According to it, various stakeholders (regulators, transmission system operators, traders, generation companies, suppliers and industrial users) have identified several obstacles to trade divided basically in three major groups:

- Issues linked to implementation of the *acquis*:
 - cross border allocation of capacities;
 - ITC (Inter-TSO Clearing) mechanism;
 - access to national networks and TSOs' role.
- Lack of competition in generation and supply:
 - concentration and vertical foreclosure;
 - operability of national market rules.

SEE-specific issues:

- tariffing;
- licensing;
- regional harmonisation.

Regarding cross border allocation methodologies, only Romania has switched to purely market-based allocations. In other countries there are still a number of remnants of the past, such as direct allocation through the AAC (Already-Allocated Capacity) mechanism, or even without any particular method.

It is very important to understand why TSOs from the region tend to do such things. Fig. 2 shows interconnection capacities (thermal values) compared to domestic installed generation capacity and domestic peak load (data from 2002). According to so-called "Barcelona target", cross-border capacities should exceed domestic load by at least ten percents. Obviously, all SEE countries except for Romania and Bulgaria meet this criterion. The countries emerged out of former Yugoslavia have strong interconnections, especially with each other. This is a natural consequence of former membership in the same federal state. Many internal power

lines became international after the division of Yugoslavia. For example, Croatian network is very well interconnected, with six 400 kV lines, eight 220 kV lines, and seventeen 110 kV lines [14]. In spite of this, Croatian transmission system operator, HEP TSO, is building another double-circuit 400 kV interconnector to Hungary, and has medium-term plans to build its first 220 kV interconnection to Montenegro, as well as to span the Bosnian border with another 400 kV line. Although in possession of substantial cross-border capacities, Croatian TSO has been reluctant to allow market-based allocations. The principal underlying reason for avoidance of such allocations was a fear of running short of import capacity in case, for example, that a trader buys much of it in an auction for transits, leaving only insufficient capacity for satisfaction of domestic demand. Of course, this is not so much the question of security of supply, but rather of congestion management, i.e. of willingness to pay for capacity. The trouble with SEE countries is that they keep retail prices of electricity so low, that there is simply no room for additional cost related to congestion. As one may observe from Fig. 2, all importing countries had put considerable efforts into building interconnectors because in the short run it had been usually much cheaper and simpler than building new generation plants. Now they might feel unfair to pay again for the usage of border capacities they had already built, but the real reason lies in their inability to transfer this additional cost to final consumers.

Thus, we submit here that apparent reluctance of SEE countries to apply market-based congestion management schemes is solely a consequence of low retail prices.

Regarding the ITC mechanism, designed to compensate transiting TSOs for additional costs of losses and infrastructure due to transmission of energy for the sake of other countries' systems, we can only state that all the SEE countries participate in it and that it is being implemented on a pan-European level. It is perhaps the only coordinated mechanism of Europe-wide scope that actually does work. Recently Bulgarian TSO declined to recognise the ITC calculation for January 2008, which in turn stopped the whole system. In late 2008 the ITC system was unlocked by Bulgarian side. Generally, it is recognised that the ITC mechanism may be far from perfect [15], but it is better to have it than not. It is beyond intended scope of this article to study the ITC mechanism in more details.

Regarding lack of competition in generation and supply, our opinion is that it is largely, if not fully, a consequence of keeping the retail prices too low throughout SEE region. For instance, in Croatia, where the retail market is formally fully opened, there is no supply competition, whatsoever. Not one single eligible customer (regardless of its size or the network it is connected to) has tried to switch to a new supplier, apparently because no one was able to offer electricity for a better price than the incumbent was. Switching rates are probably one of the best measures of price levels. Since there are no legal or licensing obstacles for new supply entrants, and since there are still no switching at all, it is clear that no

one can match the retail prices offered by the incumbent. This situation is still present, although the incumbent has succeeded to put a formula for compensation of energy input prices' changes into bilateral supply contracts with large eligible consumers. Clearly, where retail prices are kept below efficient supplier's cost level, there cannot be any retail competition, and this is a very common feature of SEE national electricity markets [12].

As for the generation, the lack of competition has several roots. In a prevailing market model of the SEE, a large domestic generator/supplier cannot recover its long-run costs from retail prices it is allowed to charge, but at the same time it is legally bonded to maintain the system integrity in the real time. Suppose the country in question is a net importer. It is then forced to buy import energy at normal prices from a normally functional foreign market, plus any cross-border transmission costs involved. Since the company is obliged to serve the domestic market without interruptions, it cannot bid its own available energy into the foreign markets. Should the country be a large net importer in relative terms, it is very likely that such business would in time push incumbent's results significantly into the negative area, due to persistent long-run increases in energy prices. Thus, due to tying retail prices under cost level in non-market ways, the incumbent would have no means available to invest in new generating plants.

What about foreign direct investments in generation facilities? It is not quite easy to answer this question since there are too many variables involved. Some of them, like general legal certainty, legal system, land records, corruption, political and social situation, etc., do not have much to do with electricity, or any other particular industry sector for that matter. In former socialist countries these factors can be of great importance. Of course, administratively maintained low retail prices would not really encourage potential investors, either. Due to the very nature of electricity as commodity, it should not be a problem to sell the energy to any relatively close market, provided that the host country has sufficient interconnections to other systems. As we already said, a typical import-dependent country most likely does not have problems with interconnections, especially not in the outward direction. Suppose that domestic retail prices are kept so low that the foreign independent power producer (IPP) cannot obtain satisfactory return on investments from selling directly to the domestic customers. It would then rather bid to foreign free wholesale markets and to individual tenders. It could happen that it turns out to be most competitive bidder on domestic incumbent's tenders, but this cannot be guaranteed. Thus, its presence would increase competition on wholesale regional markets, but otherwise it would not contribute too much to the development of retail competition in its host country as long as the domestic retail prices are kept significantly below regional wholesale prices. Moreover, the decrease in regional wholesale prices would slightly improve the incumbent's competitive position in its home retail market.

According to [12], in the SEE region there have been a very

few IPP investments, as well as privatised generating companies, while distribution assets privatisation have occurred much more frequently. This could be at least partially a consequence of natural interests of big foreign players to harvest as much profits as available, as soon as possible. The moment the foreign company persuades domestic government to let the retail prices loose, it can acquire distribution network, establish a supply entity, buy the energy from abroad, and shift all costs freely to the customers. However "brutal" this might sound, the ultimate consequence would have to be development of sustainable competition, unless there are either some hidden arrangements that would effectively prevent other potential competitors to enter the market, or a failure in creating a strong regulator *and* a potent competition authority. Thus, the wave of distribution privatisation may be benevolently regarded merely as the run for the first mover advantage, as long as we do not have evidence that it was not.

In contrast to apparently lucrative investing in distribution acquisitions, investments in generation plants seem far more risky. The fact that most of the governments in the region have not been ready to allow for normal market-based retail prices since years, domestic incumbents have been prevented from engaging in big investments in new generators, thus creating a shortage in generation capacities, but for several years of the deep economic slump of early nineties. Today it seems that potential IPPs from abroad do not have sufficient incentives to make those investments in the region.

Thus, we can only conclude that the lack of sustainable competition in generation and supply is a consequence of years-lasting market distortions because of tariffing policies based on low retail prices. The question is how long would it take to rectify these distortions and how severe the consequences for strategic position of SEE nations would be.

Regarding wholesale energy markets in the SEE, only Romania has succeeded to develop a competitive and liquid wholesale market with at least three efficient generating companies [12]. There are also notable activities in Slovenia aiming at establishment of a regional cross-border energy exchange in the SEE region (see <http://www.southpool.com>). These efforts have not penetrated into the region, yet.

The dominant market design has been to keep generation and supply functions integrated within the same business entity, which is regarded as a serious obstacle for creation of sustainable retail competition and wholesale market. Thus, such market model would probably have to be abolished [12].

In spite of the above mentioned facts and conclusions, we believe that the SEE governments cannot be identified as (entirely) guilty for such situation. The countries in transition are all going through the processes of fundamental reforms practically in all areas of social life. The unprecedented disastrous economic slump of nineties, as briefly illustrated in Chapter I, is merely one single aspect of this deep social crisis. In such circumstances the governments are still forced to deal with all sorts of consequences of the past, such as war damages, refugees, poor infrastructure, poor technology, dirty

industry, illiteracy, poverty, unemployment, demise of whole industry sectors, etc. Although the situation is considerably different in various SEE states, each of them has its unique set of critical problems that need to be resolved in a way to enable the society a soft gradual transition from centrally planned economy and socialist society to a free market economy.

Thus, taking one particular industry sector out of the overall context could be a problematic issue, because sudden changes unfavourable to some groups within the society could in turn create political pressures unfavourable to governments, so that they tend to be quite cautious about initiating abrupt reforms. One could even speculate that governments are concentrated mainly to daily *politics*, and not to the real *policy* issues, but even if true, this would merely be a manifestation of real-political pragmatism. However it may seem illogical or even strange, it is the fact of life. The governments faced with so dramatic changes and associated trade-offs would have to find a clear way out of the problem. Should they find it or create it, they would carry out the reform with no hesitation.

As noted in [4], SEE countries have received a lot of valuable technical assistance regarding the electricity sector reform from the EU. However, they have not received almost any assistance in creating an appropriate political strategy with minimal *political and social* costs. Some believe that government bureaucrats are supposed to act as rational agents aiming at society's best interests only, but this is generally rejected conception, see e.g. [16]. Political costs are very important in governmental decision making process, and this is a fact that must be appreciated. So, to foster desired reforms, political strategies with "least political damage" approach would probably have to be created.

IV. IMPACT OF RETAIL PRICE POLICY ON INDUSTRY PERFORMANCE AND MARKET STRUCTURE

Tariffing issues were clearly indicated as SEE-specific problem in development of national and regional electricity markets [4, 12]. We have extracted only the main profitability and liquidity ratios from financial statements of electricity sector players that keep their annual reports easily available on the Internet (see Table III). They can provide some insight into the situation in the industry, but to make a rigorous econometric assessments, a larger set of data would be needed. However, we still can make some quick indicative observations to raise important questions.

A very popular interpretation is that some governments subsidise electricity suppliers to make them able to keep very low retail prices aimed at preventing potential competitors to enter the market. Data listed in Table III cannot support this standpoint. Many electricity utilities ended 2007 with negative net incomes. Only Bulgarian utility performed relatively well. This is a consequence of low import dependency of this country. All other utilities have been suffering from profit deterioration due to steady increase of fuel and import electricity costs. Regardless of quite an obvious fact that these prices had been inflating rather rapidly since about 2004, the companies have not been allowed to shift them fully to

TABLE III
KEY FINANCIAL RATIOS OF SEVERAL SYSTEM OPERATORS AND ELECTRICITY UTILITIES FROM SEE REGION. SOURCE: COMPANIES' WEB PAGES.

| Company | Fin. ratio | 2004 | 2005 | 2006 | 2007 |
|--|------------|----------------------------|-------|-------|-------|
| EMS Serbia www.ems.co.yu | P.M. | -10.0 | -18.4 | 22.3 | 4.2 |
| | ROE | -1.1 | -2.4 | 3.7 | 0.8 |
| | C.R. | 0.43 | 0.57 | 0.86 | 1.01 |
| Transelectrica Romania www.transelectrica.ro | P.M. | 8.2 | 7.2 | 11.7 | 2.6 |
| | ROE | 7.6 | 10.1 | 17.8 | 3.3 |
| | C.R. | 1.23 | 1.07 | 1.39 | 1.43 |
| HEP TSO Croatia www.hep.hr/ops | P.M. | 5.5 | 2.7 | 5.4 | -4.8 |
| | ROE | 1.5 | 0.8 | 1.7 | -0.9 |
| | C.R. | 0.38 | 0.27 | 0.29 | 0.23 |
| NOS BiH Bosnia and Herzegovina www.nosbih.ba | P.M. | | | -0.3 | 5.2 |
| | ROE | | | -0.8 | 13.1 |
| | C.R. | | | 2.27 | 3.94 |
| ESO EAD Bulgaria www.eso.bg | P.M. | | | | 2.7 |
| | ROE | | | | 16.2 |
| | C.R. | | | | 1.48 |
| EPS Serbia www.eps.co.yu | P.M. | -9.2 | 0.4 | 15.7 | -9.2* |
| | ROE | -2.1 | 0.1 | 0.5 | -3.1* |
| | C.R. | 0.54 | 1.05 | 1.16 | 1.18 |
| HEP Croatia www.hep.hr | P.M. | 5.1 | 4.6 | 2.4 | 0.2 |
| | ROE | 2.5 | 2.5 | 1.3 | 0.1 |
| | C.R. | 0.91 | 0.92 | 0.82 | 0.69 |
| EP HZHB Bosnia and Herzegovina (one of three players) www.ephzhh.ba | P.M. | | 1.7 | 2.7 | -17.2 |
| | ROE | | 0.4 | 0.1 | -6.5 |
| | C.R. | | 3.80 | 3.15 | 1.45 |
| EPCG Montenegro www.epcg.cg.yu | P.M. | | -17.0 | -12.7 | -3.0 |
| | ROE | | ** | ** | ** |
| | C.R. | | ** | ** | ** |
| NEK Bulgaria www.nek.bg | P.M. | | | 1.5 | 1.5 |
| | ROE | | | 1.2 | 1.2 |
| | C.R. | | | 1.06 | 0.89 |
| Gray shading: system operators | | Without shading: utilities | | | |
| P.M. = Profit Margin = (Net profit / Revenue) × 100% | | | | | |
| ROE = Return on Equity = (Net profit / Equity) × 100% | | | | | |
| C.R. = Current Ratio = Current assets / Current liabilities | | | | | |
| * In 2007 EPS conducted assets revaluation which is not sufficiently explained in the financial statement available on the company's web page. The values were adjusted by the authors in an attempt to factor out the effects of revaluation. | | | | | |
| ** EPCG does not publish standard balance sheets on its web page. | | | | | |

customers, resulting in negative financial performance. At the same time, system operators ended 2007 in positive area, which is probably a consequence of unbundling rules that guarantee regulated return to the operators. Clearly, Croatia constitutes an exemption regarding TSO's profitability and liquidity. However, after regulator's proposal, on July 1, 2008 the Government passed explicit components of tariff system, transmission fee per kWh sold being one of them. Thus, from 2008 on Croatian TSO will become profitable again.

By the philosophy of unbundling, TSOs would have to be able to carry out their business and investment plans as approved by regulators. In cases where TSO's income comes from a fee charged to final consumers per kilowatt-hour, it should not experience any major problems with liquidity. From the Table III we can see that this is not necessarily the case. TSOs can encounter even severe problems with liquidity usually when parent companies exercise control over financial management, and when at the same time final retail prices are

kept under the cost level. Import dependency can only worsen the situation. Why is that so?

Suppose the parent utility cannot recover costs by selling electricity to consumers. It would then strive to negotiate more favourable contracts with eligible customers, with mechanisms ensuring transfer of all costs to them. The only parts that are essentially non-negotiable are transmission and distribution fees. Thus, network tariffs are among the most secure sources of cash flow to the parent company. Furthermore, suppose that parent utility depends heavily on imports of electricity and fossil fuels. It has got to be paying the suppliers promptly. Otherwise, supplies would stop and load shedding would take place. The parent company, being in control of financial management, supposedly decides to redirect money coming from any available source to pay instantly for fuels and imported electricity – all in hope that in the near future it would be allowed to raise retail prices and cover its costs. However, this future comes slowly, and fundings for e.g. investment projects are no longer available in sufficient amounts, leading to cuts of investment plans that can affect the otherwise unbundled network operators, too. The other possibility is that company raises short-term loans to bridge the payments to fuel suppliers and importers, which again increases its costs and leads it to even deeper negative net income.

On the other hand, if the situation with retail prices were favourable and every entity along the value chain could recover its costs, there would be no obvious principal reasons why financial management of network operators should not be in hands of the parent company, provided that investment decisions are being made in an independent manner. Thus, we conclude that retail prices that are lower than the sum of all relevant costs produce problems in regulated part of the sector, too, unless it is fully divested from the rest of the industry.

Reading from our limited set of data given in Table III we can at least postulate a thesis that the governments of SEE were not so keen to give subsidies to utility companies for the sake of keeping the retail prices low. Instead, the companies probably tend to follow what they think the governments would like them to do. Usually, it is politically desirable to avoid price increases as long as possible. There are at least three very common ways to do it:

- using accounting techniques [17] that can help one to influence the figures to report in financial statements and to postpone negative results for a while;
- designing sharp saving programmes for maintenance costs, thus taking risk of rapid degradation of system performance which could in turn cause additional investment costs in the future;
- avoiding investments, thus making one's position even more vulnerable in the future;

In studying numerous annual reports of the companies listed in Table III we encountered traces of all such practices.

As regards governments and energy utilities of the SEE doing the above described things, we believe it is important to

stress again that they do not behave like this for their "bad intentions" or inherent reluctance to adopt law and practices of the developed part of Europe, but rather for tremendous amounts and diversity of problems they encounter in transforming the society as a whole.

V. ISSUES IN REGIONAL POLICY INITIATIVES

Although the establishment of Energy Community have already helped a lot in bringing the contemporary EU energy law to the SEE countries, the fact that there has not been almost any progress in establishing the regional electricity market still remains. For the ending of this article we choose to give our views on possible contributing reasons for such an unfavourable development by giving an indicative example of the process of coordinated auction office (CAO) formation.

Many details on the CAO process can be found on the Energy Community web pages (www.energy-community.org), so we will not repeat them here. It is a very common opinion shared probably by most of the professionals from Energy Community contracting parties that there are serious problems in making the CAO actually happen and function. By talking to a number of responsible people from governmental bodies, regulators and industry players, we have concluded that the main source of problems in implementing CAO idea is the lack of political strategy to carry it out.

CAO has gained substantial political support from European Commission, Energy Community Secretariat, and the SEE states. However, this support was of rather declarative nature, and politics actually stepped out of the process, leaving it to the Energy Community bodies and transmission system operators to finish the process.

It seems that the operators were waiting (some with fingers crossed) for the European Commission and the Energy Community to complete the task, including both organisational and technological aspects, while the Commission and the Community were waiting for the operators to get the job done.

From our experience, it is politically sensitive to give away control of such a strategic asset as cross-border capacities to an international company. Thus, the people who *really* make decisions (and these are *not* managers of TSOs) should be familiarized with the idea and costs/benefits of its realisation.

We have already mentioned a wide spread fear of losing control over national electrical borders, thus supposedly endangering security of supply due to eventual inability to obtain capacities needed for imports of electricity whenever needed. It proved rather hard for TSO managers to advocate CAO formation to the real decision makers, like integrated utility boards, governmental bodies, and so on.

Thus, we are convinced that both Commission and Energy Community should reach to the decision makers to explain that integrating initiatives would in fact improve the situation with security of supply and that there have been no problems with malicious border capacity gaming aimed at endangering any countries security of supply, whatsoever.

As regards the operators, some of them are concerned

about possible lack of transparency in conducting the tasks of CAO. Namely, all operators raise some revenues from congestion management on their borders. Should the physical flows and network topologies remain the same, and the revenues and/or available capacities fall after switching from bilateral cross-border allocations to a regional CAO, operators would have any right to oppose it. On the other hand, should the CAO start with incomplete set of functions (i.e. simply taking over the previous bilateral auctions to be held in one central office), operators could deem it as just another additional operating cost. For comparison, there have been a number of problems grounded in various non-transparencies inherent in ITC mechanism. Similar situations should be avoided while creating the CAO.

Thus, we conclude that there is a clear need to engage real decision makers into the process, which means that they would first need to understand why is in their best interests to foster the CAO formation.

There is a more positive example, too. All the involved parties in Croatia (regulator, ministry, TSO and TSO's parent company) have quickly reached a consensus about giving a full support to the formation of CAO. However, this was merely a consequence of Croatia's negotiations on the accession to the EU. Since the EU membership has been a paramount national political goal, heavily pursued by all government entities, none of the above mentioned parties could possibly afford to oppose this integrating regional initiative. Otherwise, the EU would get a negative signal from Croatia about its willingness to align with EU energy *acquis* without second thoughts. At the same time, Croatia has been applying for a decade long exclusion from the cross-border capacity allocation rules, which is diametrically opposite to the very idea of CAO. This is a good illustration of how participation of a nation in a political process of such importance can directly affect strategic decisions of individual companies (and other entities, too), who do not need to be explicitly instructed what to do, but rather figure it out themselves.

VI. CONCLUSIONS

The main conclusions of our research are:

- SEE countries in transition have mostly reformed their electricity legislation, but still significant problems in implementation of the market rules and principles remain unresolved;
- virtually all unresolved issues can be clearly attributed to rigid retail price controls that have been kept throughout the region;
- thus, the only possible way to finish the reform of the electricity sector in these countries successfully is to allow all market participants to do business under normal conditions, which seems to be rather difficult for the governments of SEE countries.

Besides evident problems in implementation of the EU energy *acquis*, the governments of SEE countries face so many difficulties in transforming the society, that realistically

they cannot stay entirely focused on the reform of just one sector, ignoring other political and social tensions associated with development of societies in transition. Thus, apparently some efficient *political* strategies would need to be created to foster the energy industry reform.

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