

# **Energy Reform and Investment Opportunities in Romania**

## **Abstract**

The article analyses the nature and the early impact of multinational investment in Romania's energy market in the context of privatisation and liberalisation reforms pursued by the Romanian government since 1990s. It is argued that multinational investment in this strategically and politically sensitive industry, undertaken by (largely) state-owned European utilities, challenged the Romanian policy makers who, in reforming the industry to meet the EU requirements had to ensure that, while the emerging market design and structure appear correct, the outcome of such investments from the standpoint of domestic consumers has yet to be measured. The article presents the energy market reform in Romania, highlights the efforts to attract foreign direct investment (FDI) and shows the decreasing role played by the state in this industry. It thus contributes to the growing literature on multinational investors in infrastructure industry (Hausman, Hertner and Wilkins, 2008) in the context of developing economies (Gils et al, 2007; Ramamurti and Doh, 2004) and electricity supply (Woodhouse, 2006).

## **Keywords**

Energy Reform, Privatisation, Foreign Direct Investment

## **1. Introduction**

At the beginning of 1990s, Romania's energy sector had obsolete generation plants, inefficient transmission and distribution systems, limited cross-border inter-connectors and high energy intensity. Given its importance for the economic development of a transition country, successive governments restructured the sector

and carried out institutional and market liberalisation reforms. As a signatory of EU Association Agreement and the Energy Community Treaty, Romania's energy policy was shaped by these European-wide legislative frameworks which detailed the EU *acquis communautaire* in energy, competition and environment.<sup>1</sup> Against this background, successive governments pursued their own energy objectives: to maintain the net exporter status by upgrading and expanding generation capacity, infrastructure and cross-border interconnection; to increase energy efficiency and reduce energy intensity through technological improvements. These objectives required the restructuring and upgrading of all segments of the energy market – generation, transmission, distribution and supply and, to meet the implicit financial demands, it was necessary to attract and rely upon domestic and foreign private investments.

However, private investment in infrastructure sectors (of which energy sector is one) tend to be risky, complex and long-term activities during which investors face uncertainty over their returns. Such characteristics render direct investment in infrastructure services particularly challenging for multinational investors and host governments alike. To recall, investment in infrastructure activities is capital intensive, involves huge sunk costs and expenditure on assets that have little value in alternative uses, has a long-term pay-back period, tends to be location-specific, involves networks which require strict regulation and thus carry significant political risks (especially as a certain degree of public intervention is to be expected in the provision of infrastructure services). It is therefore not surprising that infrastructure investments are perceived as particularly risky when undertaken in transition and developing countries (Ramamurti and Doh, 2004; Ramamurti, 2003). Multinational enterprises (MNEs) undertaking FDI in transition and developing economies that need to acquire technology, expertise and financial resources, face counterparty risks related to host governments' commitment to reform. Equally, host governments too face the risks of default or contractual breaches in dealing with private entities and such risks are significant in the case of public utilities, where access to infrastructure services is regarded as public good. Either way, it has been argued that the involvement of private investors (foreign and domestic) gradually diminishes host governments' role in infrastructure industries. Whereas previously the government acted as investor, consumer, regulator and mediator, following industry restructuring and privatisation, governments tend to retain only the roles of regulator and

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mediator (Sharan et al, 2007; Ure, 2008). Has this been the case in Romania's energy sector where industrial restructuring has been followed by market liberalisation and gradual divestment of some of the state assets through privatisation? Although changes in ownership are recent, it would be legitimate to ask whether, beyond meeting EU objectives with respect to sustainability, energy intensity, fuel diversification and energy security, such divestment has been good for Romanian consumers and industry. For example, privatisation has led to several generation and distribution businesses ending up in partial ownership of European state-owned utilities, keen to build up their systems across Europe to allow them to compete regionally. As a matter of performance measurement, has the productive efficiency been achieved within the privatised sectors and companies? In this paper we look at the above issues through examining how multinational investment in Romanian electricity generation and distribution took place. We use companies' reports and government policy documents to analyse how some of the largest multinational investors entered the Romanian market and, from the standpoint of the host country, we emphasise the government efforts to attract FDI and the anticipated benefits from such investments.

## **2. EU Energy Policy and the Strategy of Incumbent Energy Utilities**

Since mid-1990s, the EU advocated for the creation of a liberalised market in energy (electricity and gas) which would allow commercial and household customers to buy power from anywhere is cheapest. According to the revised EU directives<sup>2</sup>, in fully liberalised markets, energy producers are able to sell electricity and gas across national borders, increasing competition and lowering energy prices in the process. This will force incumbent energy utilities to become more efficient and boost economic growth across the entire region. More recently, the debate on energy objectives of the European Commission moved on to include concerns regarding not only competition in the sector, but also security of supply and sustainable production/consumption. To accommodate the new objectives the EU has recognised the need to improve energy networks that carry electricity and gas to consumers and provide a secure energy supply in the future, given the energy and climate targets of the EU

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(Buchan, 2009). Against these upbeat plans for the future, by 2007 the first phase of EU energy market liberalisation saw many national markets still dominated by single enterprises, often former state-owned utilities. For example, the Electricite de France Suez (EDF Suez) dominates 87% of France's electricity market thus promoting competition in such concentrated markets is proving difficult because most of these utilities are vertically integrated, producing, transmitting and distributing power. It has been argued that full benefits of competition will occur only when integrated utilities are split into generation, transmission and distribution companies, so that the business of selling energy can be separated from the business of producing and transmitting it. Instead, the most visible phenomenon across European energy markets consisted of a wave of national and cross-border mergers and acquisitions which allowed incumbent energy utilities to consolidate their position on the EU market, while in the UK (the most open energy market in the EU) almost all the unbundled domestic incumbents were acquired by their European integrated counterparts (Haar and Jones, 2008; Buchan, 2009, p. 36). As a result, a new set of legislative measures is being proposed to enforce competition rules in the market for, despite the rhetoric, electricity markets in many European countries remain particularly challenging without fair third-party access (Kroes, 2007). But, as remarked elsewhere, the need to offset the monopoly power of Gazprom (which supplies 35% of the EU gas) may lend new arguments for maintaining the status quo, i.e. the vertically integrated incumbents (Haar and Jones, 2008).

In contrast to the continuing efforts by the EU Commission, a small number of large European integrated companies dominate the regional electricity and gas market. Vertical integration from gas/power supply to generation and to consumers via company owned networks remains prevalent. EU aspirations such as unqualified and easy third party access along with European wide contracting for gas and power remain unattained. Looking across the economic landscape, we see an industry structure dominated by some long-established companies such as RWE and E.ON (of Germany), EDF and GDF (of France), Enel (of Italy), Vattenfall (of Sweden), Iberdrola (of Spain), and a number of newer, but still integrated, utilities such as CEZ (of Czech Republic), OMV (of Austria), PPC (of Greece), Polish Energy (of Poland) and MOL (of Hungary). Meanwhile, the process of acquisitions and consolidations continued apace, as indicated in table 1 (PricewaterhouseCoopers, 2006). While in certain markets the power grid and national transmission system is owned by third-party without upstream supplies or downstream

customers, in much of Europe, network unbundling has yet to take place. It is arguable that even the thread of vertical unbundling has led many companies to replace vertical dominance of single markets with horizontal dominance across several markets, leveraging upon home country advantages.

Table1: Examples of mega mergers and acquisitions in the EU since 2000

This trend has continued to the East as many of these integrated utilities have recently expanded in Eastern and South-East Europe, investing in generation as well as distribution companies. Table 2 illustrates the drive of the most important multinational investors in the region. With few exceptions, these multinational utilities consist of old companies (some established in the nineteenth century) that built up ownership advantages through long-term R&D expenditure and technological innovation that allowed them to upgrade their technological, managerial skills and environmental quality standards (Pinsent Masons, 2007; Lobina and Hall, 2007). These companies acquired long term network experience and valuable exposure to the 1990s energy market liberalisation process in the EU. Often they have mixed private-public ownership, due to their roots in publicly owned domestic entities, some partly or wholly privatised prior to internationalising. Those with experience in recently liberalised EU markets have, as seen in table 1, already gone through a wave of mergers and acquisitions in order to consolidate their market position in the EU. In addition, a recent survey undertaken by UNCTAD pointed out other competitive advantages displayed by these firms such as: the possession of technology and expertise in network design and operations, engineering skills, environmental know-how, advanced financial techniques and project management capabilities. It was found also that up to 20-30% of their international investment is financed from internal resources, primarily generated from profits in their home country where they enjoy a monopolistic position (UNCTAD, 2008a; Ramamurti and Doh, 2004).

Table 2: FDI in the South and Central European energy sectors

By expanding in Southern and Eastern Europe in the first half of 2000s, these multinationals took advantage of their transferable skills previously acquired in the 1990s when they operated in the EU liberalised markets and, to some extent, were able to benefit from first-mover advantages, exploiting economies of scale and making it more difficult for their competitors to follow. Some were forced to invest abroad after losing their domestic market share as a result of energy market liberalisation in the early 1990s. Often these companies, such as EDF Suez, benefited from home government support (Thomas, 2009). However, it was reported that the main drive towards investments in Eastern and Southern Europe was the planned energy market liberalisation in the region, leading to regional growth opportunities and the realisation of economies of scale. Some investment was believed to have a more 'strategic' character, meant to encourage exports of electricity to EU member states (UNCTAD, 2008a). Given increasing demand for infrastructure facilities in the region, conditions for direct investment appeared favourable. However, the political risks and the ability of users to pay had to be mitigated by the Romanian government's commitment to reform. In the next section we discuss the efforts made by the latter to lend credibility to its energy market reforms.

### **3. Energy Reform in Romania during the Transition Period**

The energy sector of Romania is one of the oldest in the world: Romania was the first country to produce oil commercially and among the first to generate electricity commercially (IIEC, 1999). The first independent power plant was built in 1882 and FDI was welcomed in the sector up to the post-WWII nationalisation (Hausman, Hertner and Wilkins, 2008; Stanciu, 2000). Romania's energy system evolved through post-WWII integration of existing independent power plants and, to this day, the country retains some reserves of oil, gas and lignite. During the Communist regime, the energy sector was the largest contributor to the country's GDP but the central planning system undermined the quality of its assets and its economic performance. Prior to 1989, the energy sector served the needs of an industrial policy based on self-sufficiency, which pursued the development of heavy industry

uniformly across the country, with disregard to the existence of adequate resources and infrastructure to support industrial units in remote areas. Besides, unrealistic, politically driven completion dates put pressure upon constructors and often resulted in poor buildings and infrastructure quality. The single minded pursuit of industrialisation led to a massive expansion of generation capacity in the 1960s (with plants that quickly became obsolete), a transmission system biased towards former COMECON states (and in need of upgrading) and a delayed launch of the first nuclear reactor due to failure to meet safety requirements as a result of time pressure exercised by the authorities. Given that only 20% of Romania's power generation assets are less than 15 years old, with more than a third older than 25 years, thus the investment necessary for refurbishment was estimated at \$4-5bn, of which \$0.9bn for modernisation of transmission and distribution systems (IEA, 1993; IIEC, 1999). This situation was similar across other Eastern and Central European countries in transition (Hooper et al, 2009; Newbery, 1994). As successive post-communist governments in Romania made efforts to restore economic efficiency to this strategic economic sector, they encountered several challenges<sup>3</sup>:

- energy companies were owned by the state and controlled by various ministries which set prices, gave subsidies, reviewed investment programmes and allocated foreign exchange;
- energy was underpriced relative to other inputs in industry and prices of other goods in the economy, in order to 'subsidise' industrialisation; lower energy prices and the promotion of heavy industry led to an energy intensive economy;
- tariffs charged for electricity and heat were based on average costs, not marginal costs and the sale of heat was cross-subsidised by the sale of electricity;
- energy resources were administratively allocated to industrial companies, based on past patterns of consumption and not on the value of their output; this allocation system undermined improvements in energy efficiency and delayed the restructuring process;
- large scale investments were necessary in energy supply (generation and transmission).

Thus, the energy sector required institutional reform to encourage industry restructuring and secure investments if Romania was to remain a net exporter of electricity and promote market liberalisation. As a signatory of the European Energy Community Treaty, the country made commitments towards a common energy policy, including gradually liberalising energy markets, restructuring energy companies, maintaining cost-recovery tariffs, adopting tariff methodologies and technical codes for network access, enforcing payments, introducing social safety nets and setting up independent regulators to scrutinise third party network access.<sup>4</sup> By 2007, vertically integrated utilities were unbundled to create distribution system operators (DSOs) and a separate transmission system operator (TSO). As already documents, Romania established a state-level national energy authority, created a national regulatory agency and introduced anti-corruption programmes (Deitz et al, 2009).

This way, Romania showed commitment to reform, essential for its EU membership bid, with technical assistance from foreign advisors who helped drafting legislation, suggesting regulatory frameworks and possible industry structures and financial support from multilateral institutions (EU Phare Programme, World Bank, EBRD, UK Know-how Fund, IMF). The government designed and successfully implemented a programme of reforms which began in 1990 with the passing of Law 15/1990 which reorganised former ministries and split energy companies into commercial (SAs, which were to be privatised) and state-owned entities (RAs, deemed strategically significant).<sup>5</sup> The government decision GD15/1993 limited RAs status to natural monopolies, activities that serve the public interest and suppliers of services essential to national security policy. Law 76/1992 introduced commercial relations between suppliers and consumers of energy that allowed suppliers to cut energy delivery in case of non-payment of bills and/or apply penalties for late payments. Another government decision (GD 179/24/04/1993) eliminated subsidies on the consumption of electricity and gas in residential sector, increasing domestic energy prices. The Competition Council was created in 1996 to monitor market behaviour and pay attention to abuse of market power, as when companies in the possession of marginal generation capacity might

exercise their market power at the time of peak demand by withholding electricity from the market or artificially creating congestion in the transmission system.

However, energy price liberalisation started only after 1997 when the regulatory framework was enforced and the ANRE, the fully independent regulator (National Authority for Energy Regulation) was established to issue authorizations for new generation capacity and/or the rehabilitation of existing plants and to regulate prices and tariffs in monopolistic activities (transmission and distribution). Until the market operator was established, ANRE was responsible also for the generation sector. The Ministry of Economy and Commerce (MEC) established in 2003 (GD 738/2003) oversees the national energy strategy and the Romanian Agency for Energy Conservation (GD 941/2002) ensures energy efficiency at the national level. The energy market gradually opened up to competition and, in terms of the main components of the electricity market, the wholesale market operated since 2000 and its operator (OPCOM) plans to transform it into a regional energy market while the retail market liberalisation is ongoing. Since 2005 all industrial consumers have been eligible to change their supplier and the market was completely open as of July 1, 2007 (GD 638/2007). By 2006, the Romanian electricity market comprised 63 thermo producers (formerly part of 'Termoelectrica', now partially regulated; one transmission system operator ('Transelectrica'), completely unbundled and regulated, mainly state-owned; 8 distribution network operators and implicit suppliers, fully regulated, of which five have been privatised; 104 suppliers and 8.6million consumers, of which 8 million residential and 0.6million industrial (Diaconu et al, 2008). In the next section, we discuss privatisation initiatives in infrastructure and the investment attracted as a result.

#### **4. Market Liberalisation, Privatisation and Investment Opportunities in Romanian Utilities**

As a result of industry restructuring and market liberalisation, privatisation opportunities presented themselves in the competitive segment of the industry. In the energy sector in particular, foreign investment was

needed to ensure generation capacity was capable of meeting the new environmental targets set by the EU and to upgrade obsolete transmission and distribution networks with the latest technologies and operational efficiencies. The Romanian government was keen to attract foreign investment and promoted one of the most liberal FDI legislation in Eastern Europe that guaranteed national treatment and protection of foreign investment (Perkins, 1994). The experience of countries that privatised their energy utilities (the UK, Chile) proves the importance of a well designed regulatory system, independent of political influence in encouraging foreign direct investment (Newbery, 1994). Even if the legislative framework favoured investors, it was the privatisation of energy companies that offered them the opportunity to enter the Romanian market. This is in accordance with several studies on energy reform in developing and transition economies, which singled out privatisation, wholesale market competition and independent regulation as the key elements of reform that stimulate private sector investment flows (Jamasp et al, 2004). In what follows, we look at the evolution of FDI in Romania in general and in the energy sector in particular, emphasising FDI opportunities as a result of privatisation initiatives.

As in the case of most transition economies, the privatisation process acted as a catalyst for renewed interest from foreign direct investors. Romania has had a long and painful transformation from a socialist to a market economy and attracted relatively low amounts of FDI inflows in the first decade of transition, i.e. only 5 per cent of FDI inflows in Central and Eastern Europe, with a total FDI stock of only \$10bn in September 2003, an amount equal to that of annual FDI inflows in Poland in 2000 alone (Marinescu, 2003). The reasons for Romania's poor record in attracting FDI comprises a long list of factors but certainly some of the most important have been the delay in reforms and the slow pace of the privatisation process. Romania started its "large" privatisation scheme only in 1997, closing just minor deals until that year. Consequently, FDI inflows have been under the \$1bn mark each year during 1990-1996 and even with inflows above this mark in the years to follow, the average of the first decade of the transition period is extremely low (see fig.1).



Fig. 1: FDI Inflows to Romania, \$bn

Source: The authors, data compiled from the UNCTAD database (2001-2008)

Privatisation picked up after 1997 due to changes in the privatisation law and the introduction of new and more transparent mechanisms supported by the World Bank. Yet, utilities included, only about 15% of all large enterprises' assets have been privatised in the first 12 years of transition (Dumitriu and Hunya, 2002). In the first decade of transition, privatisation in Romania can be subdivided in 3 distinct stages: the first one (until 1994) comprised of spontaneous and pilot privatisations and MEBOs, the second one (1995-1996) was represented by the mass-privatisation program and the third one (from 1996 onwards) made full recourse to case-by-case privatisation (Negrescu, 1999). FDI was scarcely present in the first two stages, as small and medium-sized enterprises were privatised first, followed afterwards by larger industrial companies. Only in the third stage began the privatisation of banks, insurance companies and utilities (telecommunications, oil, electricity, gas, water) with consistent involvement of foreign investors.

Table 3: Large scale investment in Romanian privatised companies

According to ARIS Annual Report (2008), during the first nine months of 2008, Romania's FDI inflows increased 40% compared to the same period the year before. By 2007, this emerging economy, recently integrated into the EU, ranked 32<sup>nd</sup> out of 141 countries by FDI inflows, with annual inflows between 6-8% of GDP since 2004 (UNCTAD, 2008b). The on-going privatisation process must have helped the investment in infrastructure sector. Since 2004, a number of electricity and gas distribution companies have been acquired by some of the large European energy utilities incumbents. Table 4 shows the chronology of industry restructuring and highlights parts of the sector that have been successfully privatised between 2004 and 2006, all with foreign investment from EU energy companies.

Table 4: The restructuring of electricity market in Romania and privatisation initiatives

From 1998, when the first privatisation started in telecommunications till 2007, when on-going privatisation initiatives were completed in energy utilities, the infrastructure FDI stock reached 17.63% of the total FDI stock of Euros 42.77bn. Table 5 shows the share of infrastructure investments in total stock of FDI in Romania which is higher than the reported 13% in 2006 (UNCTAD, 2008b), This confirms the worldwide trend towards higher FDI in infrastructure than before (in 1990, FDI in infrastructure represented only 2% of global inward FDI) and reflects the increased demand for infrastructure upgrading and maintenance funding which exceeds host government budgets, particularly in transition and developing countries.

Table 5: FDI stock in Romania's infrastructure, 2007 (bn euros)

As seen above, electricity, gas and water account together for 8% of the country's inward FDI stock, although a large part of the sector remains under state ownership. Only 41.3% of the FDI stock in the Romanian infrastructure represented outright acquisitions: the remaining 58.7% of investment acquired the assets of the

recently privatised state-owned enterprises, in line with Woodhouse (2006) who found out that most FDI in energy sector took the form of acquisitions.

Table 6: FDI stock in Romanian infrastructure, 2006

Finally, we consider in detail the acquisition strategy of European utilities investing in electricity distribution in Romania and emphasise the expected benefits for foreign multinationals and the host country alike.

## **5. Market Structure and Multinational Strategy in the Romanian Energy Industry**

The Romanian government energy programme for 2005-2008 reinforced the need to privatise the energy distribution network in order to introduce market mechanisms in the sector and ensure the financial resources necessary to operate in a more competitive, liberalised market. The privatisation strategy envisaged promoting foreign direct investment through inviting competitive and transparent international bidders. It was also expected that foreign investors will contribute superior managerial and operational know-how to improve the efficiency of distribution network and the quality of services to consumers. Although the liberalisation and privatisation of Romanian energy markets were based on high ideals of free market capitalism and were acceded to by the Romanian government to meet requirements for EU membership along with attracting scarce investment capital in a time of tight budget constraints, it is useful to consider why the European utility majors pursued these opportunities. To explore their plans we look at what happened, through the details of the largest privatisations already carried out in the sector and discuss the resulting market structure.

### *The Acquisition of Electrica Moldova SA by E.ON Energie AG (Germany)*

Germany's energy-giant E.ON undertook the largest initial investment by acquiring Distrigaz Nord and Electrica Moldova – the gas and electricity providers for the north-eastern part of the country. This formed part of

E.ON plans to develop a European-wide gas network, following its negotiations with Gazprom, in order to acquire a preferential position on gas distribution to Europe that would be difficult to reach by competitors. Distrigaz Nord operates the sale and distribution of gas, supplying almost 4.5 billion m<sup>3</sup> of gas per year to approximately 1 million customers and manages a system of pipelines of about 17,000 km length. Electrica Moldova delivers electricity to about 1.3 million customers and has almost 3,000 employees. When negotiating the privatisation of Electrica Moldova SA, as in the case of all the other regional distribution companies in Romania, the government required successful bidders to meet the following conditions: a long-established presence and experience in the energy sector; long-term strategic plans in Romania; capacity and willingness to modernise the company, upgrade the technology, management and operational skills to meet the EU rules and regulations; ability to invest in infrastructure and educate the local labour force to operate more sophisticated machinery.<sup>6</sup> More specifically, the bid for Electrica Moldova SA was launched in April 2004 and five international competitors came forward: AES (USA), CEZ AS (Czech Republic), E.ON Energie AG (Germany), Public Power Corporation (Greece) and the consortium between UNION FENOSA INTERNATIONAL (Spain) and Power Development Ltd (Malta). The government put additional conditions regarding the financial aspects of the transaction: the successful bidder was to acquire 24.62% of the existing Electrica Moldova shares and buy newly issued shares to reach 51% ownership. The bidder would also have had the right to offer up to 5% of the newly increased capital of Electrica Moldova to EBRD and/or IFC (International Financial Corporation). In the end only CEZ and E.ON presented bidding offers and the E.ON Energie AG offer was considered as the most favourable, not only with regard to selection criteria mentioned above, but also financially: E.ON Energie paid Euros 31.4mil to acquire 24.62% of Electrica SA and contributed Euros 68.8mil to the company capital, acquiring this way a total of 51% of shares. By 2005 the transaction was complete and E.ON Energie added the Romanian electricity (and gas) distribution companies to its system spanning nine European countries: Hungary, Slovakia, Czech Republic, Switzerland, the Netherlands, Italy, the UK, Germany and Poland.

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The German incumbent is now the largest company electricity and gas company in Europe, which, by 2004, produced 27.542MW and sold 244bn KWh of electricity and 102bn KWh of gas across the continent. From the Romanian government perspective, the deal appeared to achieve at least in the short term all the objectives proposed: the acquiring firm had extensive experience and knowledge of markets and EU regulations, had long term plans in Romania, starting with upgrading technical and managerial skills, while from a financial standpoint, it is believed the German utility will channel cash into infrastructure development and modernisation.

*The Acquisition of Electrica Banat SA and Electrica Dobrogea SA by Enel SpA (Italy)*

Electrica Banat and Electrica Dobrogea were the first two distribution companies to be privatised through partial divestiture. Italy's Enel SpA, after losing market share in Italy due to the liberalisation of the energy market, acquired the two small regional electricity companies for about EUR 112million. Enel SpA received 51% shares in the two distribution companies and also overtook their debts, totalling another EUR 100mil (MEC, 2005a). This allowed Enel SpA to consolidate its position as producer and distributor of electricity in South East Europe: the acquirer already took over the largest energy producer in Slovakia (Slovenske Electrame, with an installed capacity of 7,000 MW) and few energy producers in Bulgaria (with a total installed capacity of 900MW). In Romania, the two distribution companies serve 1.4mil customers, of which 1mil households. Together they account for 24% of Romania's retail electricity market.

The privatisation process started in 2003 when competitive bidders were invited. Five foreign utilities expressed their interest as follows: the Public Power Corporation (PPC) of Greece for both Dobrogea and Banat; Grivco Energy of Romania and ABB (Sweden) for Banat SA; BKW FMB Energie AG of Switzerland for Banat SA; Enel SpA of Italy for Banat SA and Dobrogea SA and EVN of Austria for Banat SA and Dobrogea SA. Enel's offer was the best and subsequently, Enel consolidated its presence on the Romanian energy market by acquiring a third distribution company, Electrica Muntenia Sud.

*The Acquisition of Electrica Muntenia Sud SA by Enel, SpA (Italy)*

This time Enel paid EUR 820mil for 51% shares in one of the largest Romanian regional distribution companies. The large size of this investment compared to previous ones in the sector was due to the fierce competition between bidders and strong opposition from local interest-groups that believed that the first energy companies were privatised at low prices, below cost. Thus, Enel became the largest foreign investor in Romania's energy market, owning three regional electricity-distribution companies with more than 2.5 million customers, 4,800 employees and 35% of the local electricity distribution.

*The Acquisition of Electrica Oltenia SA by CEZ (Czech Republic)*

The south-western branch of the electricity distribution companies, Electrica Oltenia was bought by CEZ, the second largest company in the Czech Republic by turnover (behind Skoda) and the 4<sup>th</sup> largest company in Central and Eastern Europe. The Czech state still controls the company, holding 68% of its shares. The company operates in Poland, Hungary, Romania, Bulgaria, Serbia, Kosovo, Slovakia and Albania. In a move to foster expansion, it was listed in 2006 on the Prague stock exchange. At present CEZ is the largest vertical integrated company in the Central and Eastern European energy market and one of the ten largest in Europe. CEZ acquired 51% of Electrica Oltenia's shares for Euros 151mil and so gained access to 13% of Romania's energy distribution market. Electrica Oltenia was one of the largest distribution companies in Romania with 1.3mil customers, while 81% of its electricity is sold to industrial customers. Of the five energy companies which expressed interest in Electrica Oltenia SA (AES of USA; CEZ, E.ON Energie AG, PPC of Greece and Union Fenosa International of Spain with Power Development Ltd of Malta), only E.ON Energie AG and CEZ made an offer. The Romanian government ensured that, under the new ownership, Electrica Oltenia SA will continue to operate and utilise the funds from privatisation primarily for investment in upgrading the network and protect the environment (MEC, 2005b). Most recently, CEZ decided to expand its wind-power capacity in South East Europe and is currently building two wind-farms in Dobrogea region (17km for the Black Sea) with an expected capacity of 600MW by 2010. Upon completion, these will be largest wind farms in Europe which will greatly improve Romania's renewable energy production currently at only 8MW (Petroleum Times, 2009). CEZ is not alone in its regional

ambitions in wind power as the Austrian energy utility – EVN has already been developing wind sites in Romania, Bulgaria and Macedonia.

*The Acquisition of Energy Holding SA by the Societe Bancaire Privee, Genève (Switzerland)*

Not all foreign investment attracted by the liberalised electricity (and gas) markets of Romania pursued long term plans. The acquisition of Energy Holding SA by SBP Genève in 2006 is a case in point: a largely speculative investment in one of the largest electricity traders on the Romanian and the regional market, with a turnover of EUR 328million in 2007. The financial details behind the acquisition of Energy Holding by SBP have not been disclosed, nor, indeed, much is known about the ownership of the two companies. Prior to 2006, the SBP Genève was a small private investment and management fund which recently obtained a banking licence from the Swiss authorities and specialised in the management of public and private asset portfolios, investment consulting and transactions on the international capital markets. Anecdotal evidence indicates that SBP Genève became the subject of many anti-corruption cases pursued by the Swiss Authorities for failure to publicise the financial reports regarding company's activities. Although quoted on the Swiss Stock Exchange (SWX), its transactions were limited prior and post acquiring Energy Holding SA, especially when compared to the number of sanctions and penalties levied by SWX against it. Investigations started as a result of media inquiries hastened the selling of SPB to a small private Italian bank, Banca Profiro SpA for only 97mil CHF (a tenth paid in cash, the rest in shares). Behind sudden and dubious changes in ownership, the Energy Holding's object of activity was trading overseas the electricity cheaply acquired in Romania. Through its subsidiary in Bulgaria, Energy Holding SA managed to sell to Albania, Macedonia, Montenegro and Serbia more electricity than Hidroelectrica, the Romanian domestic producer.<sup>7</sup> Hence, the main asset of Energy Holding SA (a small and privately owned company by a politically well-connected Romanian investor with dual (Swiss) citizenship) consisted of a few contracts this person secured with Hidroelectrica to buy electricity for 5 to 10 years at fixed prices and sell it abroad or internally to industrial consumers at higher prices. Around 65% of Energy Holding resources come from hydro power. As of late, it has been suggested that

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Energy Holding intends to build a thermo power station of 700MW capacity, requiring an investment of 840mil Euros which would start producing electricity in 2013, when the contract with Hidroelectrica expires.<sup>8</sup> From the Romanian government perspective, this investment has not been beneficial: Energy Holding encouraged the export of cheaply bought electricity, while domestic household consumers were forced to pay higher prices for their electricity and many were denied supplies when unable to pay, begging some questions we would like to raise with regard to overall industry performance post-privatisation.

From all the transactions above, it results that the Romanian government's objectives to modernise its distribution network of electricity (and gas) with the proceeds from privatisation and improve the quality of services were upheld during the negotiation process with potential investors. Five out of eight distribution companies were privatised under the terms and conditions set by the government and, with the exception of the first two companies acquired by Enel Spa, where there was some controversy regarding the final payment, privatisation was transparent and competitive, allowing several incumbent European utilities to enter Romanian energy market. The privatisation of the remaining three distribution companies was suspended after 2006 when the government promoted the idea of creating a Romanian national champion, an integrated energy utility to incorporate the remaining three distribution companies, Hidroelectrica and three of the largest thermoelectric stations in Muntenia region<sup>9</sup>. By doing so, the Romanian government planned to keep control over the major energy producers (Nuclearelectrica, Hidroelectrica, Termoelectrica, and Romgaz) and integrate them with the energy-distributing companies that are still under state ownership as well as the transport company (Transelectrica), so as to form a regional player. Restructuring was to take place through modernisation of existing plants, closing down of the loss-making units and building of other facilities. The necessary investment was to come from state funds, European funds and private sources. Some minority shares in the remaining energy companies were to be sold on the stock exchange in order to attract the necessary capital for expansion. Not surprisingly, this suggestion was not welcomed by the large European

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incumbents already present in Romania and, following the 2008 election, such plans are now being revised by the new government which is again in favour of continuing the process of privatisation as initially agreed.<sup>10</sup>

From the standpoint of investors, the attractiveness of the Romanian energy market consisted of the large number of industrial and residential customers, interesting assets and scope for energy trading. Data released so far suggests that the revenues of all these major energy companies in Romania rose over the last 2 years and are set to grow further given the demand for fuel, the growth of the economy and the European funding available for modernisation of infrastructure. As per table 7, all these large scale, long term transactions have led to the establishment of viable foreign-owned companies which count among the largest 100 in the country by turnover.

The emerging market structure of the Romanian power and gas markets conforms to the liberalised free market paradigm: there is now a variety of market participants, comparable cost structures, no obvious market dominance or market concentration level (in aggregate), minimal vertical integration and no conditions which would lead to oligopoly. This new emerging market structure bodes well for how market participants should behave, i.e. in setting prices fairly so that consumers receive a fair deal, investing sufficiently in infrastructure to ensure a stable supply and so on; however, the relationship between market structure and ultimate behaviour and performance is a complex one (Scherer, 1970). Although it is too early to assess how participants will behave or the ultimate performance of the industry, the latter might not turn out as the government desired. Market liberalisation and privatisation through following the EU agenda may not necessarily lead to productive and allocative market efficiencies. In power markets there are many ways in which competitive market structures still lead to undesirable conduct and outcomes (Gassner et al, 2008; Estache and Rossi, 2005). For example, sophisticated energy companies can find ways to charge for gas and power along non-price dimensions, including seasonality, variability of off-take and reliability of commitment. In the follow-up research we will look at the behaviour of market participants and see whether the energy market structure in Romania delivers on the promised benefits of liberalisation and privatisation.

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## **6. Conclusion**

The EU-inspired market reforms were undertaken by successive governments in Romania in the energy (electricity) sector in order to attract foreign direct investment and mobilise the necessary capital requirements to modernise the sector and ensure good market performance. The progress in privatising and liberalising the market has been significant given the relatively short period of time in which changes have been made according to strategic government energy programmes. According to a trend emphasised in the international business literature, the Romanian government withdrew gradually from its previous multiple roles as owner, creditor, regulator and consumer of energy sector services and retained only the roles of regulator and, through various monitoring ministries, mediator between market participants. Given the increase in FDI flows during the latest stage of privatisation one can conclude that the privatisation of energy distribution companies in Romania was an attractive business proposition for a number of European energy utilities which competed to acquire the assets of five out of eight distribution companies. Initial data suggests that these companies have fared well as a result of their investments in Romania but whether the evolved market structure will deliver competitive behaviour, consumer choice, reliable supply and fair pricing remains to be seen. The actual market behaviour and performance should be assessed at a later stage when relevant data becomes available.

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## Footnotes

<sup>1</sup> Memorandum of Understanding on the Regional Electricity Market in South East Europe and its Integration into the EU Internal Electricity Market (The Athens Memorandum, November 15, 2002); Treaty establishing the Energy Community in South East Europe, signed in Athens 25 October 2005, in force from July 1, 2006 was based on 'The Athens Memorandum'.

<sup>2</sup> EC Directive 2003/54/EC (electricity) of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in electricity; EC Directive 2003/55/EC (gas) of the European Parliament and of the Council of 26 June 2003 concerning the common rules of the internal market in natural gas; and EC Regulation 1228/2003/EC of the European Parliament and of the Council of 26 June 2003 on conditions for access to the network for cross-border exchanges in electricity.

<sup>3</sup> IEA Report on Romania's energy policies, 1993.

<sup>4</sup> 'CEE: energy economies in transition', *The World Energy Book*, 2007, Issue 3, p. 1

<sup>5</sup> RAs included fuels, mining, utilities, defence enterprises but later on, some non-core activities were separated from the RAs and established as SAs to supply services to the parent companies and open the way for privatisation.

<sup>6</sup> Electrica SA (2004) 'Realizarile SA Electrica din anul 2003 si obiectivele propuse pentru anul 2004'.

<sup>7</sup> *Cronica Romana*, December 17, 2008; 'Societe Bancaire Privee Geneva takes over Energy Holding SA', *Wall-Street Journal*, August 18, 2006; *Evenimentul Zilei*, March 21, 2007.

<sup>8</sup> 'Electrica Surpasses Energy Holding as the largest electricity trader', *Business Standard*, October 16, 2008.

<sup>9</sup> M. Munteanu (2008) 'Mai mari si mai puternici', *Businessweek Romania*, August. 26-31.

<sup>10</sup> *Ziarul Financiar*, 'Videanu desfiinteaza gigantul energetic de stat', 15 Jan 2009.

Table 1. Examples of Mega Mergers and Acquisitions in the EU since 2000

Acquirer	Acquired	Date of M&A
E.ON (Germany)	Powergen (UK)	2002
Suez (France)	Electrabel (Belgium)	2005
Iberdrola (Spain)	Scottish Power (UK)	2007
RWE (Germany)	National Power (UK)	2005
RWE (Germany)	Innogy (UK)	2004
E.ON (Germany)	Aquila (UK)	2003
E.ON (Germany)	Ruhr Gas (Germany)	2005
GDF (France)	Suez (France)	2008
RWE (Germany)	Essent Energie (Netherlands)	2009
EDF (France)	British Energy (UK)	2008
Enel (Italy) and Accion (Spain)	Endesa (Spain)	2008

Source: The authors, compiled from financial press

Table 2: Infrastructure (Energy) FDI across South and Central Eastern Europe

EU ENERGY COMPANY	SEGMENT OF ENERGY MARKET	COUNTRY OF DESTINATION
Enel (Italy)	Electricity distribution and generation	Romania, Bulgaria, Greece, Slovakia
Eni (Italy)	Electricity and gas generation, transmission, distribution	Romania, Greece, Turkey, Croatia, Slovenia
CEZ (Czech Republic)	Electricity distribution and generation	Romania, Bulgaria, Poland, Albania
RWE (Germany)	Electricity distribution	Romania, Czech Republic, Hungary
E.ON (Germany)	Electricity and gas distribution	Romania, Czech Republic and Bulgaria
GDF Suez/Electrabel (France)	Electricity generation and gas distribution	Poland, Hungary, Romania, Slovakia
EDF (France)	Generation and distribution	Hungary, Poland, Slovakia

Source: The authors, compiled from financial press

Table 3: Large Scale Investment in Romanian privatised enterprises

Romanian Company	Acquirer	Date of Investment	Size of Investment
Dacia (automobiles)	Renault (France)	1999	US\$ 50mil
Romtelecom (telecommunications)	OTE (Greece)	1998	US\$ 675mil
Romanian Development Bank (BRD)	Societe Generale (France)	1998	US\$ 200mil
Petrom (oil company)	OMV (Austria)	2004	Euros 1.5bn
Romanian Commercial Bank (BCR)	Erste Bank (Austria)	2005	Euros 3.75bn
Automobiles Craiova	Ford (USA)	2007	Euros 57mil
Electroputere Craiova (locomotives)	Al Arrab (Saudi Arabia)	2007	Euros 120mil

Source: Marinescu (2007)

Table 4: The Chronology of Electricity Market Restructuring in Romania and Privatisation Initiatives

Legal Basis	State-Owned Company to be Restructured	Resulting Companies/Subsidiaries/Affiliates	Ownership
GD 365/1998	RENEL RA ('Electrical Energy' RA)	CONEL SA (National Company of Electrical Energy) 'Nuclearelectrica' SA – the nuclear producer Nuclear Service Provider SA	State-owned State-owned State-owned
GD 627/2000	CONEL SA is dissolved and replaced by	'Termoelectrica' SA – the thermal producer 'Hidroelectrică' SA – the hydro producer 'Electrica' SA 'Transelectrica' SA – transmission comp.	State-owned State-owned, to be privatised State-owned Mainly State-owned (90%)
GD 1182/2001	'Termoelectrică' SA	'Electrocentrale Deva' SA	State-owned

GD 1342/2001	'Electrica' SA is split into 8 regional distribution companies	'Electrica Moldova', 'Electrica Oltenia', 'Electrica Muntenia Sud', 'Electrica Muntenia Nord', 'Electrica Banat', 'Electrica Dobrogea', 'Electrica Transilvania Sud' and 'Electrica Transilvania Nord'	Privatised 2005 (E.ON) Privatised 2005 (CEZ) Privatised 2006 (Enel) State-owned Privatised 2004 (Enel) Privatised 2004 (Enel) State-owned State-owned
GD 1524/2002	'Termoelectrica' SA	'Electrocentrale Rovinari' SA  'Electrocentrale Turceni' SA  'Electrocentrale Bucuresti' SA	State-owned  State-owned  State-owned
GD 1563/2003	'Termoelectrica' SA	'Electrocentrale Galati' SA	State-owned
GD 101/2004	'Termoelectrica' SA and 'Lignitul' SA (coal company)	'Energy Complex Rovinari' SA 'Energy Complex Turceni' SA 'Energy Complex Craiova' SA	All three coal complexes were put up for sale but later the offer was withdrawn

Source: The Authors, Romanian government publications

Table 5: FDI stock in Romania's infrastructure, 2007 (bn euros)

Sector	FDI Stock 2007	% of total FDI stock
Infrastructure, of which	7.541	17.63
- public utilities (electricity, gas, water)	3.437	8
- telecommunications	3.575	8.35
- transportation	0.529	1.2
Total FDI Stock, 2007	42.77	100

Source: Authors, data compiled from Financial Press, Companies' Reports and Romanian National Bank, 2008

Table 6: Major FDI in Romanian infrastructure

Company	Sector	Type	Acquired Romanian Company	Investment, EUR million	Year of entry	Investor's country
Vodafone	Telecom	Acquisition	MobiFon	1,500*	2005	UK
Orange	Telecom	Acquisition	MobilRom	1,400*	2005	France
OTE	Telecom	Privatisation	Romtelecom	675	1998	Greece
CEZ	Energy	Privatisation	Electrica Oltenia	151	2005	Czech Republic
Enel	Energy	Privatisation	Electrica Banat	69	2004	Italy
Enel	Energy	Privatisation	Electrica Dobrogea	43	2004	Italy
Enel	Energy	Privatisation	Electrica Muntenia Sud	820	2006	Italy
E.ON	Energy	Privatisation	Electrica Moldova	100	2005	Germany
SBP Genève	Energy	Acquisition	Energy Holding	n.a.	2006	Switzerland
GDF Suez	Energy/Gas	Privatisation	Distrigaz Sud	311	2004	France
E.ON	Energy/Gas	Privatisation	Distrigaz Nord	303	2005	Germany
OMV	Energy/Gas	Privatisation	Petrom Gas	1,500	2004	Austria

Veolia	Water	Privatisation	Apanova	140*	2000	France
Total	-	-	-	7,012	-	-

\*Amounts invested under the whole period of foreign ownership, not just for the stake bought in the acquired

company Source: The authors, data compiled from Financial Press, Companies' Reports.

Table 7: Largest foreign-owned companies in Romanian infrastructure ranked by turnover, 2006

Company	Rank in Top 100	Turnover, EUR million	Profit margin, %
Orange Romania	7	1067.12	43.59
Vodafone Romania	8	1017.87	37.36
Distrigaz Sud	10	909.74	6.67
Romtelecom	11	870.57	17.40
E. ON Gaz Distributie	15	705.73	4.26
CEZ Distributie	32	372.77	10.26
Energy Holding	45	306.20	7.24
E. ON Moldova Distributie	46	305.34	3.58
Enel Distributie Banat	52	285.04	17.94
Petrom Gas	72	219.66	4.99
Enel Distributie Dobrogea	77	207.97	19.11

Source: The authors, data compiled from Finmedia, 2007