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Analysis of power exchanges in Romania

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Abstract

In this article the author wishes to make known power exchange particularities in Romania in the context of the accession to European Union and the single European energy market formation. To understand the issues it wishes to them present the author will call the general features of European energy exchange and its mechanisms. Will be made known featurescountries and a detailed analysis will be undertaken on the Romanian stock market of electricity.

Energy exchanges are organized markets for trading electricity. They provide public information on transactions electricity wholesale and retail markets. In Romania power exchange is administered by OPCOM, institution empowered by the European Commission to conduct this activity. Anonymous participants will know only when the transaction counterparty. Transaction elements are known to all participants respecting such principles of transparency and non-discrimination.

The energy market liberalization in Romania ends with the formation of national energy exchange that will be the consequence of increasing energy prices in the EU with negative consequences for Romanian consumers.

Keywords

Transactions, spot market, physical delivery, liquidity risk, short-term contract

1. INTRODUCTION

European Union (EU) has proposed that in 2014 to implement single market power model, which involves connecting all existing energy exchanges into one. The aim of this giant project and not easy to implement is that all energy consumers in the EU (citizens and companies) have a unique reference price and the cost of electricity to be more accessible. For energy tariff to be more accessible, be aggregated on a single trading platform, all offers of purchase and sale of energy in the EU. In this perspective, consumers will be protected from cyclical fluctuations of prices on future single European market.

2. EUROPEAN ENERGY EXCHANGE

2.1. European Regulatory Framework

The formation of the internal energy market is one of the objectives of EU energy policy imposed by the EU Treaty, making it the tool and end at the same time. Legal basis for this process has been designed by the European Commission (EC) as a series of legislative packages in fact sets of European Directives and Regulations relating thereto. The first package produced an early opening of the internal gas and electricity markets. He was replaced in 2003 by a second package on the entry of new suppliers of gas and electricity markets of the Member States and allowed consumers to

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choose their own electricity suppliers. In April 2009, adopted a third package that changes the second package and pursue further liberalization of the internal market for electricity and gas. It consists of two directives on electricity and gas markets (2009/72 / EC and 2009/73 / EC) and three Regulations on conditions for access to the gas transmission network to the network for cross-border exchanges in electricity and the creation of the European Energy Regulators (ACER). Energy Package III of the European Commission has proposed to remove national barriers to trading gas and electricity and reduce consumer prices.

According to the latest European regulation, Regulation (EU) no. 1227/2011 the European Parliament and of the Council, "It is important to ensure that consumers and other market participants that they can trust the integrity of the electricity and gas markets, the prices set on wholesale energy markets reflect a fair and competitive demand and demand and profits that can be made from market abuse".

2.2. Formation of European Energy Exchange

Energy exchanges are organized markets for trading electricity. They provide public information on transactions electricity wholesale and retail markets.

Carriers and those of the European energy exchanges have taken the initiative test inter-regional coupling NWE - Northwest Europe, representing 75% of the EU market. The plan envisions adding to Central Europe (CWE) Nordic markets, the Baltic and the UK, as well as the interconnection of Sweden with Poland. Despite constant pressure from the Commission and regulators, there is kickback and frustrations of participants, especially the lack of transparency.

Initiative aims leveling price differences between countries that have joined the single market, according to European energy regulator ACER (Market Observatory for Energy, 2013, pp.10). This is the biggest step the EU project to have a European single market for all 28 Member States.

Countries that have switched energy trading platforms are Austria, Belgium, Denmark, Estonia, France, Finland, Germany, Latvia, Lithuania, Luxembourg, Norway, Poland, Sweden and the UK (excluding Northern Ireland).

European Energy Exchange (EEX) is the main stock exchange of energy in Europe. It develops, operates and connects secure transactions, liquid and transparent energy and related products. EEX conducts auctions on behalf of the EU and 24 EU Member States. Clearing and settlement of all financial and physical trading transactions are provided by European Clearing House (ECC). ECC is a subsidiary of EEX and also provides services to compensate for other European exchanges (European Energy Exchange, 2014, pp.6).

The coupling model market power exchanges (PXS - power exchanges) allocates the available transmission capacity default in spot power exchange transactions. EU policy is the solution to achieve the single market in energy. Overall, average prices in the competitive market area reduced by coupling demonstrated CWE regions - France, Germany, the Netherlands and Belgium (price coupling) and Scandinavia (coupling volume). In Central Europe - Eastern (CEE), Hungary managed coupling Czech and Slovak markets and in parallel, coupling conducts Poland and Romania.

2.3. Nordic electricity market

Nordic electricity exchange, consisting of Norway, Sweden, Finland and Denmark electricity markets administered following:

a) physical market, consisting of: the spot market (Elspot) and balancing market (Elbas);

b) the financial market consists of: market contracts "forward" and "futures" (Eltermin) and options contracts market (Eloption).

Spot market is the environment in which electricity is traded "the day before" to the day is physical delivery. At Nord Pool, bidding is bilateral (offer to purchase). Offerings consist of price-quantity pairs and spot market price is calculated from intersection curves consist of offers for sale and purchase. Contracts traded on the spot market zones. If you experience network congestion geographical regimes using market fragmentation mechanism, resulting zonal prices (DG Energy, 2013, pp.10). The electricity market is traded electricity Elbas after spot market trading session ended. Contracts traded on financial markets ("futures" and "forward") are entered into to hedge the risk of unfavorable price electricity transactions in the physical market. These agreements are concluded for a period of four years.

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2.4. French electricity market

French electricity market management is performed by Powernext capital investment company which has the status of multilateral negotiation and has the following objectives:

- Establish a reference price of electricity in the short and medium term through a regulated market and secure;
- Achieving a significant role in building and rationalization of the electricity market in Europe.

The trading on Powernext is conducted daily, 7 days a week, including holidays. LCH Clearnet, the main clearing house in Europe and a subsidiary of Euronext, ensure the security of transactions, as an intermediary between buyers and sellers, with a guarantee deposit, adjusted daily according to the positions won (Vaida, 2008).

Pricing mechanism respects the principle of linear interpolation used for both simple and offers for block deals. To this end unit offers are transformed into simple offers, establishing one equilibrium price for each hour. A block bid can be accepted or rejected entirely.

2.5. German electricity market

German exchange EEX - European Energy Exchange, operates two markets:

a) physical market (spot market);

b) financial market (contract "futures").

Spot Market of EEX offers two different trading platforms: a closed auction trading platform for hourly contracts and block contracts and continuous trading platform in conjunction with the opening and closing auctions for energy contracts and the leading goal.

Closed auction trading (trading session ending at 12:00 am - the day before) is based on buying and selling offers hourly contracts and block contracts for the next day. Price determination is based trading system, meaning that equilibrium prices are calculated during the auction after all buying and selling bids were received over a fixed period. Volume corresponds to the price and demand balance.

In continuous trading, each tender received is verified in terms of feasibility. Register for proposals is open, which means that within the price and volumes offered are visible (Sattick, T.,2012).

If there is network congestion will be set one price for the whole country, for each hourly auction. If you experience network congestion, it allows the formation of different price ranges, through the mechanism of fragmentation of the market (Figure 1).

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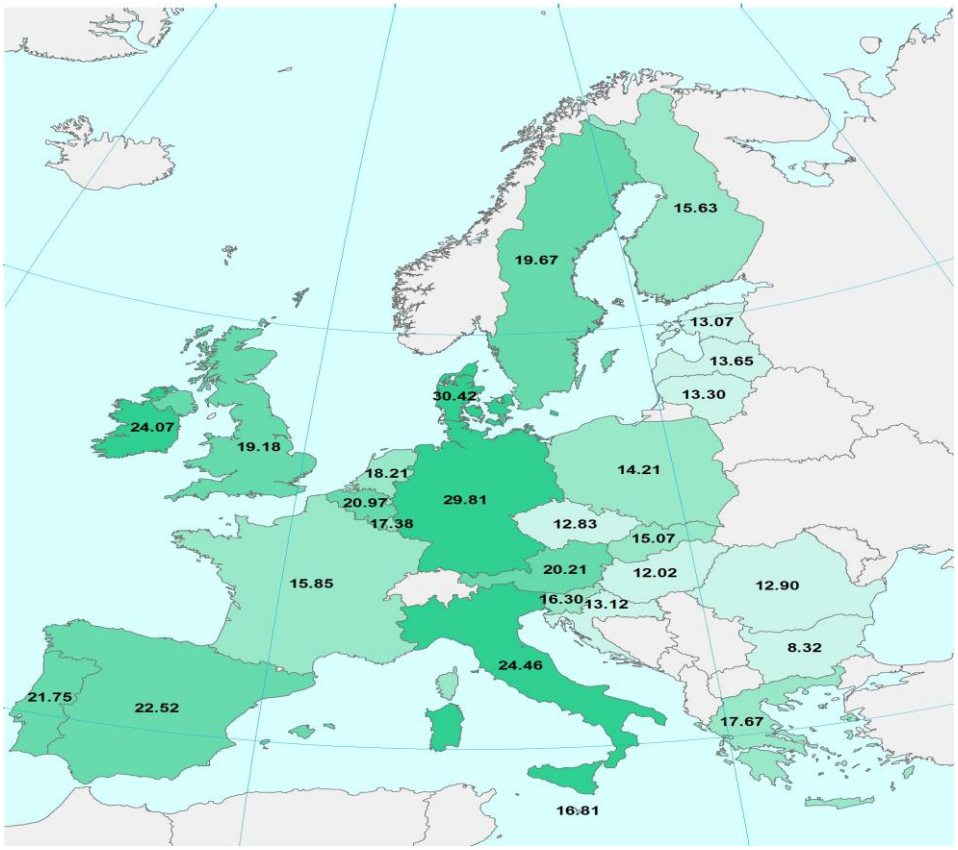

Fig. 1 – Electricity prices per kwh (€): 2014

3. REGIONAL ENERGY EXCHANGE

In 2014 the Czech Republic, Slovakia, Hungary, Romania and Poland have signed a Memorandum of Understanding to spot power market coupling (ANRE 2014, Raport național, pp.5). This means that the five countries will have a single price of power traded daily on the spot market. Future single price may be higher than average rate of national spot market trading.

Regional energy exchange is a very important project for all consumers because electricity produced in Romania will be traded together with the Czech Republic, Slovakia, Hungary and Poland. However, signatory countries are traditionally importers of energy, while Romania is exporting. Romania has one of the lowest electricity prices (Fig.1), and the effects of trading on regional exchanges will cause prices to increase further. The increase will not be significant in the context of the sharp fall in consumption in the region and in the context of the economic crisis through which Europe will not end anytime soon.

Market coupling is an opportunity that supports producers in Romania. They will have a chance to better exploit export production in the circumstances: over-production of energy, amid sharp fall in consumption.

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The purpose of the power exchange in Romania is to make full use of transport capacity. In contrast, uniform pricing of the four countries participating in the project will however lead to an increase in market prices of Romania.
European Energy Exchange has successfully completed the preliminary steps needed to be ready to implement the price coupling solution of regions in their IT infrastructure in order to become fully compatible with the model target European internal energy market supply.

4. EXCHANGE OF ELECTRICITY IN ROMANIA

4.1. Romanian regulatory framework

Phasing out regulated prices for end customers is presented to the Law no. 123/2012 electricity and natural gas. Law is, in fact, the transposition into national law 72/2009 and 73/2009 of the European Directives on electricity single market or market natural gas and accompanying regulations.
According to Law no. 123/2012 electricity and natural gas transactions competitive electricity market takes place in a transparent, public, and non-discriminatory centralized markets organized and managed by OPCOM as the operator of the electricity market.
OPCOM was established in 2001 under the Government Decision no. 627/2000 as a limited company and subsidiary of the Issuer, wholly owned by it.
OPCOM provides trading services to facilitate electricity delivery network in Romania. These services consist of providing a platform to facilitate trading and related services, such as compensation mechanisms.
Services to facilitate transactions of electricity are intrinsically linked to the application and the underlying demand for the product, namely electricity to be supplied from Romania network.
Facilitation services are influenced by three main characteristics of electricity contracts:
(a) the time and duration of electricity supply: short-term contracts (spot) refers to the delivery of a short period (usually 24 hours) and in the immediate future (the same day or the next day). Longer-term contracts (forward or futures) are usually last between one month and one year and start delivering a certain time after conclusion of the contract;
(b) the place of supply of electricity:
wholesale supply of electricity is based on the existence of electricity transmission networks managed at national level, from which and to which electricity can flow freely;
(c) method of settlement: contracts can be physically settled (settlement by physical delivery) or financial compensation (cash settlement).
Services to facilitate trading of electricity is provided by electricity exchanges and brokers. Each scholarship electricity sets of institutional rules governing trade flows and flows of information about trading on the stock exchange. These services may include clearing the post-trading activities are completed on the exchange. OTC markets, electricity supply contracts are traded bilaterally. Brokers provide services to facilitate bilateral contracts, but they can also deal directly with facilitation services offered by brokers. OTC markets are less transparent and less regulated than stock.
OPCOM, the exchange of electricity is the main requirement to ensure the best conditions for consistent pricing of transactions day-ahead market and achieve a settlement of transactions with low level of risk. OPCOM is developing the Electricity market mechanisms physical and financial electricity market, whose implementation will be carried out in successive stages, as the creation of conditions necessary for the application. By developing electricity financial market aims to create environmental OPCOM of transaction providing specific tools for transfer and risk mitigation to physical market participants. OPCOM functions it performs are:
1.Stock electricity for physical market (trading for the next day);
2.Operator settlement market the next day (spot) market balancing only in financial imbalances and market participants;
3.Administrator green certificate market;
4.Stock electricity financial market;
5.Clearing House ("Clearing House") to compensate for bilateral contracts traded on the stock exchange;
6.Trading derivative instruments (OPCOM).

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4.2. Trading on the stock Romanian electricity

In general, electricity is traded in three ways: (i) bilateral, (ii) through brokers or (iii) the power exchange. The first two channels are called trading OTC (Over-The-Counter - "OTC").

Bilateral transactions concluded through direct contact between a seller and a buyer. Brokers (telephone or electronic brokerage platforms) correlate a potential buyer with a potential vendor, service that charges a fee. Power exchanges, unlike brokers, buyers and sellers meet more potential.

Electricity transactions can be divided into short-term transactions and transactions in the longer term. Short-term transactions relate to contracts that require delivery of electricity on the same day or the next day and longer-term contracts provide that delivery takes place at a later date the next day and have a longer duration, usually between a month and one year.

The main purpose of short-term transactions is to allow market participants to adjust their contractual positions in near real time. Based on short-term forecasts, producers can adjust their planned production and suppliers can increase or diminish the amount of electricity purchased.

Until July 2012, trading electricity on the wholesale market competition in Romania took place both on power exchange and OTC. In the period 2008-2012, some OTC transactions were facilitated several international brokers. Contracts by brokers included transactions short and longer term. However, the overwhelming majority of the amount of electricity charged by brokers have a longer delivery time. Electricity delivery next day was less than 1% of total electricity charged by brokers.

Since 2009, manufacturers are under state control (which provides about 90% of electricity production in Romania) are forced to sell their production on the power exchange. In addition, the 2012 all domestic transactions electricity on the wholesale market competition to take place on the power exchange. This means that from that date, the wholesale market for electricity in Romania can not legally perform any transaction OTC (direct counterparties or through a brokerage platform), except for exports and imports.Transactions electricity platforms are part of competitive wholesale electricity market.

The power exchange in Romania there are two types of electricity markets:

(a) spot markets, which consist of day-ahead market and intraday market. On the spot market, electricity is traded for next day delivery. The day-ahead market offers are accepted until 11.15. Intraday market opens the next day after the market closes and closes just before the OTS to determine the physical flows of electricity for the next day. On the spot market, electricity is traded for each hour of the next day. OPCOM is central counterparty for all transactions of sale / purchase contracts on the spot market;

(b) bilateral central market, which consists in the centralized market of bilateral contracts awarded by public tender (hereinafter "CMBC") and Centralized Market for Bilateral Contracts with Continuous Negotiation (hereinafter "CMBC-CN"). Bilateral markets centralized electricity is traded for delivery over at least a week and generally for periods of up to one year.

4.3. Conditions for trading on the power exchange

OPCOM may transact on electricity only members. Under rules OPCOM to gain membership, applicants must meet the following conditions:

(a) obtain a license for the supply of electricity from ANRE. Under Romanian law, to obtain such a license, a foreign entity must establish a place of business (branch, agency, place of business or such other offices) or a subsidiary in Romania;

(b) to register as a party responsible for balancing the OTS or associate with an existing balance responsible party. As future users of the transport system, applicants must sign a contract with the TSO balancing for regulating electricity imbalances;

(c) provide sufficient guarantees by appointing a clearing bank. Also, applicants must submit an unconditional and irrevocable bank guarantee issued in favor OPCOM;

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(d) conclude with OPCOM standardized agreement on membership. This agreement sets out the rights and responsibilities of traders; also describes the rights and responsibilities as OPCOM operator/ administrator of the power exchange. For each market there is such a standardized agreement. Application for participation in a particular market is only accepted if OPCOM agreement on membership is signed without bringing any change standard text. Membership agreements for day-ahead market and concluded intraday OPCOM market called the "Convention to participate in the day ahead market 'and' Convention intraday market participation".

4.4. Financial stock market energy

Electricity market participants in the physical market may act through two components - bilateral contract market and day-ahead market - and financial markets throughout the two components - the stock exchange and OTC.
Financial benefits of energy market exchanges are:
- It is a centralized trading environment in relation Clearing House for all transactions that occur after the transaction;
- Market agents can participate directly or through brokers;
- Transactions are anonymous;
- Cost of electricity trading is minimized;
- Assumes the counterparty risk;
- Provides transparency and non-discrimination.

While there may be a perception on the so-called "speculative" stock, the main function of a stock resulting in the ability to provide a platform for risk management activities. In terms of price changes of primary resources and a significant hydrological changes, price volatility of electricity market can lead to situations where electricity producers to sell at certain times at prices that do not cover production costs or suppliers to buy at higher prices than those contracted with large consumers, ie households charges.
The most important of these functions is to *protect at risk*. Thus, participants who are trading on the spot market face risk from uncertainty about price developments in the market. To stabilize the trading need a tool that can eliminate or offset these risks and a place to get this tool. In this respect, financial exchanges provide financial instruments such as futures, forwards, options and creates a trading environment for these financial contracts (OPCOM).
The difference with cash settlement futures lies in how to calculate variation margin. Forwards are contracts with physical delivery contracts based on contractual purchase (buyer) or sell (seller) of a normalized electricity at a predetermined price (strike price) for a subsequent delivery, by physical delivery, during delivery.
Options contracts are a law (the purchaser or owner) purchase - option to buy - or sell - put option - on an underlying asset at a previously agreed price - exercise price - no later than the delivery date set - the date of execution.
One option is an obligation - for the seller or subscription - to sell or buy an underlying asset at a previously agreed price - exercise price - the latest date - the date of execution - the buyer should exercise the right buying.
Contracts for difference is a forward contract with cash settlement in respect of the difference between a price range of external and internal price range; market price of a contract for difference trading during prediction reflects the difference in market price during the delivery period.
Introduction of Financial Instruments electricity market is the physical market participants an opportunity on risk management to other entities in the area business community is an opportunity to increase earnings by trading conducted.

5. CONCLUSION

In an attempt to achieve a competitive internal energy market and functional, the European Commission and Parliament have issued a third legislative package for the construction of the legal framework of such markets. European Union (EU) has proposed that in 2014 to complete the implementation of the single energy market, which involves connecting all existing energy exchanges into one. The aim of this project is that all giant energy consumers in the EU have a unique reference price and the cost of electricity to be more accessible. For energy tariff to be more accessible, be aggregated on a single trading platform, all offers of purchase and sale of energy in the EU.

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Single price for energy could be an advantage for some countries and a burden to others. Average prices for electricity varies enormously from one country to another, depending on the sources of production and how they have developed is the local exchange energy.

Regional energy exchange that will become operational later this year through market coupling is an opportunity and supports energy producers in Romania. Will have the opportunity to better exploit export production, in terms of energy overproduction amid sharp fall in consumption.

Regional energy exchange coupling is the initiative of four countries - Romania, Czech Republic, Slovakia and Hungary. After the establishment of regional energy market will not be significantly more expensive, will be small fluctuations in price. In contrast, uniform pricing of the four countries participating in the project will however lead to an increase in market prices of Romania.

The average price on energy exchange format is among the lowest in Europe. We have a low price energy compared to other states because our country has a generous production of electricity from diversified sources, but also has one of the most developed markets. The developed countries dependent on imports, were far higher prices for energy. For these countries, the single price will be an advantage because the bills will decrease.

Population, liberalization will be complete in 2018-2019. In this perspective, consumers will be protected from cyclical fluctuations of prices on future single European market. Increasing energy bills will be higher than revenue growth, so it will increase appreciably group of vulnerable consumers and, therefore, the amount of funds necessary social protection.

But growth will be accelerated for companies liberalization process will end at the end of next year. Increasing electricity tariffs will have a significant negative impact on the competitiveness of energy intensive industries in Romania and, ultimately, the sustainability and future of these industries.

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