

## MOLDOVAN ELECTRICITY MARKET PROBLEMS: LEGAL PROVISIONS AND REALITY

*PhD, associate professor Nicolae Mogoreanu  
Technical University of Moldova, Chişinău*

### The structure of Moldovan electricity market

Currently, the Moldovan electricity market comprises two segments:

1. Electricity based on regulated prices, produced by CHPs whose operating regime is determined by heat load;

2. Wholesale market electricity based on non-regulated prices (about 75% of annual consumption volume) from "Moldovan Thermal Power Plant - Ukraine" duopoly, meaning that these prices do not result from unregulated competition.

Clearly, the so-called "market power" is missing in Moldova and competition in this energy sector will exist only when:

- New generating capacity will be built on the right bank of the river Nistru;
- Moldova will actually interconnect with ENTSO-E.

With regard to new generating capacity:

- Relatively low electricity consumption cannot provide sufficient incentives for investment in generating capacity from private business;
- The presence of a new plant with 2500 MW capacity at a distance of 100 km, with only 30-40% of capacity load employed is a risk factor for new capacity;
- Legislative-regulatory deficiencies together with disintegration of the Transmission Operator make high-risk obstacles for investors.

**Therefore, only the construction of interconnections with European Energy Community is the way to solve the problem of market relations in the electricity system of the Republic of Moldova.**

Let us assume that the problem interconnections is already solved and analyze to what extent the national legislative and regulatory framework favors the promotion of "supplier-consumer" relations typical for competitive market.

### Directive 2009/72/EC concerning common rules for the internal market in electricity

Art. 36, General objectives of the regulatory authority.

a) "promoting, ..., a competitive, secure and environmentally sustainable internal market in electricity ..., and effective market opening for all customers and suppliers ...";

g) "ensuring that customers benefit through the efficient functioning of their national market, promoting effective competition and helping to ensure consumer protection".

Moldova's Energy strategy until year 2030 comprises three general objectives including:

**2) development of competitive markets and their regional and European integration;**

Art. 56 from the Strategy:

"...new players will be interested to enter the market ... once it is fully **competitive and has a transparent and predictable regulatory framework**".

Law no. 124 on electricity:

The preamble "This law establishes the framework necessary for the implementation of Directive 2003/54/EC of the European Parliament and of the Council of 26 June 2003 concerning common rules for the internal market in electricity...".

Art. 1.

"The purpose of this law is the establishment of legal framework for the effective operation, regulation and gradual opening of the electricity market ...".

Essentially, at first glance, the introductory statements as well as Art. 30 of the Law, named "Electricity Market Rules", legal -, technological - and organizational matters regarding the operation of electricity market from the Law are designed in strict accordance with the provisions of Directive 2009/72/EC.

Provision (8) from Art. 30 of the Law is in strict accordance with Directive 72.

"Electricity suppliers, ...**eligible consumers** ... **are obliged** to purchase electricity based on volumes established by the Agency in accordance with the Rules of electricity market ... The supplier designated by the Government ... delivers electricity purchased from CHP plants and from plants generating electricity from renewable energy based on the tariff approved by the Agency".

Also, the manner this provision is enforced has become an obstacle to the emergence of market

relations in the electricity sector of the Republic of Moldova, even if there were interconnections with Romania or new production capacities on the right bank of the river Nistru.

Art. 30 (8) is repeated in the Electricity market rules:

*“Eligible consumers that concluded bilateral contracts for supply of electricity and electric power ..... must necessarily **conclude bilateral contracts for supply of electricity and electric power produced from sources regulated by ANRE** ... . The share of electricity supplied to Eligible Consumers from sources regulated by ANRE is subject to annual approval by ANRE....”.*

In terms of practical enforcement of this provision, ANRE Board of Directors annually issues corresponding decisions.

### ANRE BOARD OF DIRECTORS

Decision no. 536

of November 26, 2013

On the distribution of electricity.

Acting under Art. 7 and Art. 8, par. (1), let. m) of the Law on Electricity No. 124 of 23.12.2009, considering the priority status assigned to domestic marketing of electricity produced at domestic cogeneration power plants as well as the provisions of Electricity market rules, ANRE Board of Directors decides:

1. Starting with January 2014, the following approach for distribution of electricity **produced** at domestic CHP plants in cogeneration regime is approved:

- a) CET-1 S.A., CET-2 S.A., CET Nord S.A.:  
 Î.C.S. „RED Union Fenosa” S.A. – 72,57 %  
 RED Nord S.A. – 20,82 %  
 RED Nord - Vest S.A. -- 4,11 %  
**Eligible consumers** -- **2,50 %**

The decision of ANRE Board of Directors contradicts the law provision:

❖ Law no. 124 only provides for: „...**electricity purchased from power plants** ...”;

❖ ANRE decision provides for „...**electricity produced from sources regulated by the Agency**”.

What's the difference? About 12%. In 2014 CET-1 produced 70.2 mil. kWh and supplied (the operator bought) 58 mil. kWh, CET-2 produced 765 mil. kWh and supplied 655 mln. kWh, CET Nord produced 70.0 mil. kWh and delivered 58 million. kWh. Extra 2.5% of 135 mln. kWh, which is 5 mln. lei, have to be paid. What are the reasons for operating with electricity that was not delivered to the grid, thus unreasonably increasing costs for bilateral contracts? Is it a mistake?

The results of this provision have been

noticed without occurring in practice and are confirmed by a **case study for year 2014**.

Input data:

- Annual electricity consumption – 100 mil. kWh;
- Purchase price of electricity under bilateral contract – 0,82 lei/kWh;
- Based on ANRE decision no. 536 of 26.11.2013, eligible customer must purchase 2.5% of the electricity **produced** by CHP plants;
- Comparison of results was made only by **comparing purchasing costs of electricity** for an eligible consumer according to the Electricity market rules and to the competitive Bilateral contract, without the obligation to purchase expensive energy.

**Table 1.** Calculation results are shown in the table, where the following can be observed.

Based on current Electricity market rules					Based on competitive bilateral Contract		
Pro-ducer, supplier	Volume produced, mil. kWh	2,5 % from volume produced, mil. kWh	Tariff approved, lei/kWh	Total cost of electricity, mil. lei	Contracted volume, mil. kWh	Contracted price, lei/kWh	Total cost of electricity, mil. lei
CE T – 1	44	1,1	1,66	1,83			
CE T – 2	616	15,4	1,586	24,42			
CE T – N	50	1,25	1,371	1,71			
<b>Total</b>		<b>17,75</b>		<b>27,96</b>			
Contract		<b>82,25</b>	0,82*	<b>67,45</b>	<b>100</b>	0,82*	<b>82</b>
		<b>100,00</b>		<b>94,41</b>			

1. By signing the contract directly, under current conditions the total annual cost of electricity consumed would have been 82.0 mil. lei;

2. By respecting the market Rules, the total annual cost of electricity would have been 94.4 mil. lei;

3. The difference between 2014 cost results was 12.4 mil. lei;

How these aspects of tariff policy promoted around 20 years in the Republic of Moldova can be explained?

**The aim is to reduce the cost of one Gigacalorie for Chişinău and Bălţi residents connected to district heating systems.**

For this purpose:

1. About 60% of energy production costs (electricity and heat) at CHPs are embedded in the cost of electricity and about 40% are embedded in heat production costs;

2. That is why the cost of electricity produced by CHP-2 (1,586 lei/kWh) is twice higher than the cost of imported electricity (0,708 euro/kWh);

3. All inhabitants of the country consume electricity and pre-school institutions and schools, hospitals and some 250-300 thousand families, etc., from Chişinău and Bălţi employ the district heating system only. As a result, all people from the country, including most vulnerable household consumers, through electricity consumption contribute to cheaper thermal energy for district heating systems users in Chişinău and Bălţi (subsidizing of district heating systems occurs). Thus, a local issue has become an issue of national scale;

4. The cost of 1 Gcal (2011) was: in Chişinău - 898 lei, in Bălţi - 1047 lei (only these cities have heat and power plants and district heating systems), in district centers: Ştefan-Vodă - 1466 lei, Călăraşi - 1766 lei, Criuleni - 2870 lei, etc. The difference is obvious.

Provision 30 (8) of Law no. 124, slightly camouflaged, was transcribed into Art. 79 (4) of the draft new Law on electricity.

**Article 79.** *Bilateral contracts electricity market.*

**(4)** *Notwithstanding the provisions of paragraph (2) from this Article, within the bilateral contracts market the central electricity supplier purchases electricity from eligible power plants that produce electricity from RES, electricity produced in high efficiency cogeneration regime and electricity produced by district heating power plants, and resells it ..... according to the algorithm established by the Agency based on Electricity market rules, at regulated tariffs approved by the Agency.*

Let us recognize the fact that by purchasing electricity from renewable energy sources promotion of this type of generation is aimed for the future, and it is necessary to support the provisions of the preamble 43 of the Directive 2009/72/EC:

*„Member States should have the possibility,*

*in the interests of environmental protection and the promotion of new infant technologies, of tendering for new capacity on the basis of published criteria. Such new capacity includes, inter alia, electricity from renewable energy sources and combined heat and power”.*

However:

1. Combined energy production capacities – for electricity and heat are far from „new infant technologies” in the Republic of Moldova, more than that – these technologies are obsolete and outdated having considerable problems in terms of operation and maintenance;

2. Even if energy production is combined, both cycles are inefficient due to outdated equipment;

3. The method of cost allocation (heat/electricity) is flawed and discriminatory against all categories of consumers, in particular against the vulnerable consumers.

If this provision is included in the new version of the Law, market relations in the electricity sector of the Republic of Moldova shall never develop.

**The separate opinion of Moldovan Energy Consumers Association regarding Art. 79 (4) is currently examined by Energy Community Secretariat experts.**

Another example related to possible market relations in Moldovan electricity sector.

When executing energy companies’ privatization program in 2000, part of 110 kV electricity grid with transmission features and system connection were privatized by a private distribution operator.

When drawing up the contract for sale of distribution networks this mistake was detected, but could not be corrected because of changes in the Law on energy companies’ privatization program that should be operated. As a result, based on the consent of parties, component 8 was introduced in the contract, stipulating the transfer of 110 kV power grids with transmission features and system connection to the Transmission Operator "Mold-electrica", which until present has not been done.

Power grids with transmission features and system connection owned by a private operator having a distribution license is against the rules promoted by European Directives, affects the energy security of the country and contributes to discrimination of consumers connected to these grids. In addition, two power plants release their electricity into the National Energy System through these networks, thus affecting sector safety and possible privatization of power plants in the future.

## CASE STUDY

An eligible consumer connected to 110 kV grid within the private distribution operator ownership announced his intention to conclude a direct contract with the commercial operator S.A. "Energocom" aiming possible tariff reduction from 1.17 to 1.07 lei/kWh. In such case, the consumer would reduce annual electricity expenditures by 2.0 mil. Lei.

As a result, immediately appeared a letter signed by an ANRE director informing the consumer that if the contract was signed directly, the consumer should additionally pay both the cost of electricity transmission service through these grid sections (308 km of 110 kV network, tariff 8.13 bani/kWh) and the energy losses (0,41%). At that time the tariff for transmission service was 6.72 bani/kWh (the length of transmission network - over 4 000 km).

Calculations have demonstrated that signing of a direct contract while respecting the conditions imposed on the consumer will not bring any advantage. Figures from the letter (8.13 bani/kWh and 0.41%) with high precision covered the 2,0 mil. lei of economic- and legislative-based advantage. It was also found, that in reality, ANRE's Board of Directors has not discussed this issue during a hearing and has not approved any decision regarding this subject; it was a simple letter, which at that time was treated as an official document. During the last tariff setting procedure ANRE approved as "legal" the cost of transmission service through sections of transmission grids owned by the distribution operator, in the amount of 15 bani/kWh. The cost of transmission service through the national transport grid was established 14.5 bani/kWh. Both the ratio of figures 15,0/14,5 bani/kWh and of responsibilities and obligations (converted into costs) is incomprehensible

**In fact, partial liberalization of the electricity market has been declared in 2002 and total liberalization - in 2014. Until present, no economic agent has been able to enjoy the benefits of a real electricity market.**

## CONCLUSIONS

1. Presently, the establishment of market relations in the energy sector of the Republic of Moldova in current conditions became a criterion, which for many years demonstrates that regardless of political color and government composition the policy pursued in this sector is subordinated to

politics for social reasons with a strong electoral sub-stratum;

2. Even if members of the Board of Directors (ANRE) are appointed by the Parliament, this fact in no way contributes to ensuring the independence (conceptual) in the elaboration of documents and approval of tariffs (in terms of values and policies). A number of events from recent years confirms the declarative independence of ANRE only;

3. The examination of legislative and regulatory framework done by specialized international organizations is limited to the assessment of legal framework. It is also known that laws are enforced by means of a package of sub-legislative acts. These acts namely are the largest obstacles for carrying out legislative concepts, which at first glance, are formulated in compliance with European Directives; one such example is the problem regarding the electricity market;

4. The Energy Community Secretariat is informed by the Energy Consumers Association about the content of this paper (about the disintegration of country's electricity transmission system – during the last 2 years, about obstacles to market relations – during the last 8 months), but it only acknowledges the fact and hopes that the Ministry of Economy shall take care of the mentioned problems;

5. The existing situation offers unreasonable economic income to distribution and supply operators, thus exceeding 250-300 million lei annually, and these funds could decrease electricity payments as well as could be spent for activities increasing the economic effectiveness of a large group of enterprises in terms of GDP and jobs contribution.

## References

1. Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity.
2. Directive 2005/89/EC of the European Parliament and of the Council of 18 January 2006 concerning measures to safeguard security of electricity supply and infrastructure investment.
3. Regulation (EC) no. 714/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity.
4. Law on electricity no. 124 of 23.12.2009.
5. Electricity market rules, ANRE Decision no. 75 of 12.12.2002

**Recommended for publication: 15.03.2016.**