

## Romania is Betting high on Renewable Energy

Interview with *Zoltan Nagy-Bege*, Vice-President - ANRE



**Q: Why did European countries need to regulate energy prices? And who are the main beneficiaries?**

**Zoltan Nagy-Bege:** Over the last 20 years, energy markets have evolved considerably. Firstly, production has seen an increasing diversification of the energy sources due to the development of renewable energy. Secondly, the digital technology has got more and more embedded in the transport and distribution. Thirdly, in terms of trading and supply of energy, we expect this development to continue, due to the potential offered by digitization and the blockchain technology.

Over the years, the production, distribution, and supply of electricity and natural gas have developed based on a natural monopoly. In the course of several decades, consumers did not know the difference between distribution and supply, offered by the same companies, until the European Commission forced companies to separate these activities.

This decision of the European Commission to open the energy markets (electricity and natural gas) for competition has had spectacular effects both on services and prices offered by the energy suppliers and on the consumers' reactions as well. In many European countries, competitors of the big energy companies quickly emerged and the markets evolved rapidly.

Some European member states, especially those with a high standard of living, have liberalized energy markets relatively quickly, allowing consumers to change their electricity and natural gas supplier.

This process in the poorer countries, or with a lower living standard, where the population is more sensitive to energy price fluctuations, was slower, the authorities preferring to protect consumers with regulated prices as long as they could. However, being pressed by the European Commission, they had to

start gradually the liberalization process. In the case of Romania, the first step was to give up the regulated prices for the industrial consumers and then to gradually increase the opening of the markets until the total liberalization of the market for household consumers.

Currently, in order to counteract some effects of the energy market, some European countries have returned to regulated prices, especially for the vulnerable household consumers. These measures are usually temporary or are aimed at helping just those categories of consumers who are exposed to energy poverty.

If the global trend is to liberalize the energy supply, things are clear about distribution and transport. These services are still a natural monopoly, as it will never be profitable to have two or more distributors or transporters in a certain geographic area.

These services will remain regulated activities, and the components of the final energy price through the distribution and transport tariffs will remain under the supervision of the regulatory authorities.

**Q: Do regulated prices always mean lower energy bills for consumers?**

**Zoltan Nagy-Bege:** Not necessarily, but if the intention is to protect some consumer categories - especially the vulnerable ones - then regulated prices are usually lower than those on the free market.

We have, however, contrary examples. The effects of the liberalization of electricity and natural gas markets in Romania began to feel at the level of household consumers only after 2015, although the possibility of changing the supplier exists from 2007. After 2015 many companies, electricity or natural gas supplies, have begun to come up with more advantageous offers compared to the regulated prices

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# INSIGHTS FROM BUSINESS LEADERS

set by the Romanian Energy Regulatory Authority (ANRE) for the implicit or last resort suppliers. The regulated prices were maintained until 1st of April 2017 in the case of natural gas, and 1st of January 2018 respectively for electricity. During this period of time, about 20% of households of electricity and 10% of household gas consumers switched to the free market, primarily because of the more favorable prices offered.

Of course, in cases where regulated prices are intended for vulnerable consumers, a vulnerability that is generated by their income level, it is obvious that these regulated prices are intended to support them in order to reduce the impact of energy costs.

**Q: The Energy Union Framework Strategy puts energy efficiency as one of its five dimensions and states it is to be treated as an energy source in its own right. Investments in energy efficiency have proven to be one of the most cost-effective ways to support the transition to a low-carbon economy. Where is Romania standing in terms of energy efficiency?**

**Zoltan Nagy-Bege:** Romania has very good performances in terms of renewable energy and energy efficiency, and the target of 24% renewable energy for 2020 has already been exceeded, as in 2017, according to Eurostat, the percentage was 24.5%.

Within the Europe 2020 national targets on Energy and Climate Change, increasing energy efficiency is one of three national priorities alongside reducing greenhouse gas emissions and increasing the share of renewable energy in gross final energy consumption. Thus, according to the 2019 Country Report on Romania, the European Commission estimates that Romania is on schedule and will achieve the 2020 energy efficiency target of 43 Mtoe, expressed in primary energy consumption.

However, both primary and final energy consumption has increased in 2017 and continuous efforts are needed to limit energy consumption in the context of economic growth.

Each year, on 5th of March, is celebrated the World Energy Efficiency Day. Marking this day is an opportunity to bring into discussion energy efficiency that has multiple benefits for economic operators and energy consumers and is a key pillar of the economy and it is necessary to empower decision-makers on active policies and measures to increase energy efficiency in order to achieve the national targets.

The cheapest energy is the one you do not consume

and in the context of energy transition, energy consumers have a crucial role to play in supporting innovative solutions for renewable energy and energy saving by actively participating in the energy transition, being informed on opportunities to improve both quality of life and the environment, as well as sustainable economic growth.

**Q: How big is the EU Energy market today? Is this a niche like a closed network or has good potential for future growth?**

**Zoltan Nagy-Bege:** The potential of the European energy market is huge. It's not a niche at all.

The European Union has assumed leadership on climate change and wants to become a model for decarbonization, which is why it has an ambitious program that wants to phase out all polluting production units and switch to clean electricity production. This process is called the energy transition.

The European Commission's target is a European Union with net zero emissions by 2050, the most ambitious climate policy of any big economy. A study by Eurelectric shows that decarbonization by electrification (electric vehicles, heat pumps, electrified processes, etc.) will double the electricity demand in the EU by 2050 (from an annual level of 3000 TWh today to 6000 TWh in 2050).

This road of energy transition opens opportunities for any technology that presents a less polluting alternative than the existing ones. Here we are not talking just about the renewable energy, which obviously represents the ultimate goal, and we will certainly have more and more investments in this area. We are also talking about the production of electricity using natural gas, one of the cleanest energy sources, biogas, which has a huge potential for solving environmental pollution problems, or nuclear power plants.

This approach opens up a huge potential for investments in natural gas, for natural gas producers, for new trans-border pipelines or for liquefied natural gas (LNG) terminals.

**Q: The liberalization of European gas markets is widely recognized as a success by industry analysts. But liberalization has failed to deliver on another key objective – supply diversification. Ironically, Europe is now importing more Russian gas than ever. What really defines success in gas market liberalization?**



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**Zoltan Nagy-Bege:** I do not agree. If something is happening right now in Europe, it is precisely that: diversification of sources. Even though we are currently seeing only the expansion of Russian gas, I think the Russians know very well that competition has appeared and they are reacting accordingly.

Europe has the alternative of the Middle Eastern gas or the gas from the Caspian Sea, from the North Sea, or the Black Sea, more recently the natural gas from Cyprus or Egypt, or the LNG from the United States of America.

The very emergence of these competitors urges Russians to get involved in more and more cross-border transport projects such as North Stream II, South Stream, TAP, TANAP, etc. Of course, there are also geopolitical considerations, but competition is not negligible. And the existence of competition and the emergence of alternatives is welcomed and offers us more options, which will eventually lead to a stronger negotiation position with the Russian partners.

The fact that Europe currently prefers predominantly Russian gas, I think it is a conjectural situation, but it does not mean total dependence on Russia. I think we are smart enough and cautious to always have alternatives.

I think that is the key to success in terms of liberalization, to have more supply sources, as many partners and transport routes with non-discriminatory access to third parties, alternatives to Russian gas as well as to the Norwegian, Dutch (which just show signs of decline), or US LNG.

**Q: The Romanian Energy Regulatory Authority-ANRE approved recently the methodology (secondary legislation) on regulating the gas price. ANRE said the new methodology will not lead to higher prices for the population and will secure transparent and non-discriminatory access for all domestic customers to the natural gas derived from domestic production at the rate of RON 68 (EUR 14.3) per MWh. The natural gas prices will be regulated starting April 2019 until February 2022. What to expect?**

**Zoltan Nagy-Bege:** At the end of 2018, the Romanian Government, in order to protect energy consumers, decided to reintroduce regulated electricity prices for household consumers and blocked the price of the natural gas from the domestic production for a period of three years at 68 lei/MWh. In order to understand the context and reasons for this decision, we must look at an overview of the

situation and the history of liberalization.

In 2016, the Romanian Government decided to fully liberalize the natural gas wholesale market starting with April 1st, 2017. The decision considered the fact that the price of imported natural gas was decreasing continuously and there was a risk that, keeping the liberalization calendar, the minimum selling price of gas from the domestic production to be higher than the price of imported gas.

Thus, reaching the convergence of the two prices somewhere between 60-65 lei/MWh, the liberalization decision seemed justified, but as early as the summer of 2017, natural gas prices on domestic and international markets began to rise, from 64 lei in April 2017, to almost 130 lei in December 2018.

Seeing this price evolution, in a relatively short period of time when natural gas demand did not increase significantly, nor the production costs, the government's decision to cap the price of gas from domestic production can be justified by the desire to protect household consumers on the one hand and the gas-consuming industry, or SMEs that all felt the surge of gas prices, on the other hand.

Certainly, from the point of view of the European directives and regulations, the measure may be considered inappropriate, a fact already found by the European Commission, which on 7th of March 2019 already initiated an infringement procedure against Romania for incorrect application of the Gas Directive and the Regulation for the security of supply. Discussions will take place with EC specialized forums on this procedure, which will decide to maintain, amend or repeal the measures provided in Government Emergency Ordinance (GEO) 114/2018. But until then, ANRE has the obligation to implement the measures stipulated in GEO 114/2018, meanwhile amended by GEO 19/2019, and we have developed a series of regulations for the application of regulated prices for household electricity consumers, as well as the capped price of natural gas from domestic production, for household gas consumers and for the heat producers which are using natural gas for the thermal energy delivered to household consumers.

As a result of GEO 114/2018, we can say that in the year 2019, the prices for household consumers will not increase either to electricity or to natural gas, but given that through the regulations issued in the year 2018, ANRE stimulated long-term electricity and gas procurement contracts, and most suppliers have covered their electricity and natural gas needs for their clients in a fairly large proportion by medium

# INSIGHTS FROM BUSINESS LEADERS

and long-term contracts, we cannot expect a fall in prices paid by household consumers in 2019, only possibly starting in 2020.

**Q: How much transformation is required in the gas sector to meet the EU's 2050 climate goals?**

**Zoltan Nagy-Bege:** The natural gas market plays a very important role in the energy transition and the achievement of the EU's climate change targets for 2050.

In March 2019 was launched the study "Gas for Climate, How gas can help to achieve the Paris Agreement target in an affordable way". This research evaluates the optimal cost of complete decarbonization of the EU's energy system by 2050 and the role and value of renewable and low-carbon gas used in existing gas infrastructure, by comparing two scenarios: "minimum gas" and "optimized gas". The problems are extremely complex, but very shortly the main conclusions of the study are:

**1.** Full decarbonization of the energy system requires substantial amounts of electricity produced from renewable sources. Electricity production will double and renewable electricity production - wind and solar will increase ten times.

**2.** The growth of wind and solar energy requires dispatchable electricity production based on solid biomass or natural gas. Seasonal battery storage is unrealistic even at low cost.

**3.** Full decarbonization of high-temperature industrial heat production requires natural gas consumption.

**4.** Existing gas networks ensure the reliability and flexibility of the energy system. They can be used to transport and distribute methane and hydrogen from renewable sources.

However, no one has the illusion that fossil resources will keep endlessly. At European level, the subject of substitution of natural gas is already on the agenda. The most convenient solution seems to be hydrogen, hydrogen storage, and transport through the current natural gas infrastructure.

Hydrogen production involves high electricity consumption. When the majority of production units in the EU will be the renewable energies, they will cause imbalances in energy systems, because they produce electricity when the wind blows, when it's the sun, etc., not when it's needed.

At those times when renewable power plants produce imbalances, electricity could be used to produce hydrogen, to balance the electricity system, then hydrogen can be stored and transported into the existing natural gas depots and networks, and used later to produce electricity or even can be used in road transport.

Changes in natural gas sector will occur primarily because this resource will end, but until it ends, it contributes to the change itself (energy transition), and we are already looking for and even finding solutions for the period after exhaustion.

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