

# **An Analysis of the Liberalization Process of Gas Market for Household Consumers in Romania**

*Cătălina NEDELCU<sup>1</sup>  
Mihail BUȘU<sup>2</sup>*

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## **ABSTRACT**

*In this paper, the authors are making an analysis of the liberalization process of the Gas Market for the household consumers in Romania, based on the data collected from the natural gas suppliers as well as from the Romanian Energy Regulatory Authority in the field Energy (ANRE). The authors are analyzing the pre- and post-liberalization situation for household consumers, illustrated in terms of some basic indicators, namely the number of household customers from the regulated and competitive supply segment, the number of suppliers with domestic gas customers, the shares held by suppliers with domestic gas customers, as well as the number of present suppliers with natural gas offers. There were also identified clauses that lead to cost increase for the customer in case of change of supplier. The conclusions underline the fact that the process of liberalizing the supply of natural gas to the household has not had a significant impact on final customers, but it is rather a combination of other factors, such as: the low prices during the hot season may not induce a particular appetite for switching the current supplier, the natural gas offers made at the beginning of the liberalization process may not have been attractive enough to determine the change of the current natural gas supplier, and the low level of information provided by the gas suppliers. Our recommendations are that the suppliers should provide unique terms and conditions for their customers, and to present their offers in a clear, transparent, and concise manner.*

**KEYWORDS:** *gas market, liberalization, competitive regime, regulated regime, household consumers.*

**JEL CLASSIFICATION:** *D12, L11, L95*

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## **1. INTRODUCTION**

The contracting of natural gas in a competitive regime is done either by concluding bilateral contracts or by trading on centralized platforms - starting with 2014, the obligation to trade in natural gas by producers on centralized platforms was established; since 2015 this obligation also targets suppliers.

In 2017, the liberalization of the price of natural gas for the entire quantity traded by domestic producers took place, as follows:

- Until 31.03.2017, the quantities intended for regulated consumption were provided by domestic producers at administratively set prices.
- After 31.03.2017, following GEO no. 64/2016, the suppliers of household consumers and CPET (only for the amount necessary to produce thermal energy for the population) have gone from a regulated gas purchase to a competitive purchase.

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<sup>1</sup> Bucharest University of Economic Studies, Romania, catalina.nedelcu@fabiz.ase.ro

<sup>2</sup> Bucharest University of Economic Studies, Romania, mihail.busu@ase.ro, corresponding author.

The competitive operation of the natural gas market on the wholesale level took place between March 2017 and December 2018 when, by adopting GEO no. 114/2018, obligations were reintroduced at the level of domestic natural gas producers to sell at a capped price, thus extracting from the competitive market significant quantities of natural gas (those intended for CPET).

By GEO no. 1/2020, the liberalization of the market for the supply of natural gas to domestic customers was established, starting with 1.07.2020.

Subsequently, by the Romanian Energy Regulatory Authority (ANRE) Order no. 27/2020 were established the measures that the suppliers of household customers in the regulated market were to apply in the period May-June 2020, mainly the transmission of price offers valid from 1.07.2020 and notifications containing information on market liberalization.

## 2. LITERATURE REVIEW

Romania has the largest natural gas market in Central Europe and was the first country to use natural gas for industrial purposes. The natural gas market reached high records in the early 1980s because of the implementation of government policies aimed at eliminating import dependence (Ban, 2012). The application of these policies has led to an intensive exploitation of domestic resources, resulting in a decline in domestic production.

In the context of radical structural and institutional reforms that characterized the Romanian economy after 1989 and aimed at decentralizing services to increase their quality and efficiency, the Romanian energy market was gradually opened to competition, as an integral part of the concept of liberalization of the national economy and the free movement of goods and services (Rotaru, 2013; Radulescu et al., 2016).

By restructuring the natural gas sector, the premises were created for initiating the privatization process in the sector. The profound transformations in the configuration of the market and of the natural gas sector, which have taken place since 2000 and to date, have determined the adaptation of the institutional and regulatory framework to the new situations (Bolba et al., 2021; Haar and Marinescu, 2011).

Thus, in the electricity sector, respectively, in the natural gas sector, regulatory authorities were established in October 1998 (ANRE), respectively, 2000 (ANRGN), as autonomous public institutions, having as main attributions the elaboration of the necessary regulations for the functioning of the electricity market, respectively natural gas, in conditions of efficiency, competition, transparency and consumer protection, as well as the application and monitoring of the application of the issued regulations (Cicea et al., 2021; Paunescu, 2016; Pirvu and Badircea, 2013). In April 2007, the two regulators were merged.

At the same time, the legal framework necessary for carrying out the activities specific to the natural gas sector was continuously created and perfected (Busu, 2020; Busu et al., 2019). Thus, in 2004 the Gas Law no. 351/2004, which regulates, mainly: natural gas policy, organization, functioning, role and attributions of the regulatory authority, authorizations, licenses and certification in the natural gas sector, access to natural gas systems, public service obligations and consumer protection, market, prices, and tariffs in the natural gas sector (Maxim, 2013).

The Gas Law has undergone changes and additions that have resulted mainly from the following needs: accelerating the transposition of European regulations into domestic law, redefining the powers of public authorities to adapt to new forms of cooperation with EU structures, strengthening the subsystem of advisory and non-governmental bodies for growth their role in the elaboration of the national strategies and programs regarding the consumer protection and in the market surveillance activity, the diversification of the natural gas supply sources by creating their technical-economic conditions of transport nature (Dudau and Nedelcu, 2016; Murafa, 2012).

### **3. ASSESSMENT OF THE PRE- AND POST-LIBERALIZATION SITUATION**

In this section, we present data and information on the situation prior to the time of liberalization, respectively, from January-June 2020, as well as certain elements regarding the first month of liberalization.

In the following, we will refer to two distinct segments, namely the segment of the supply of natural gas to domestic customers in a regulated and competitive regime, without this meaning that this is how relevant markets are defined within the meaning of competition law (the definition of relevant markets exceeds the scope of this sector inquiry). Therefore, the presence of suppliers in the two business segments will be assessed through weights and not market shares.

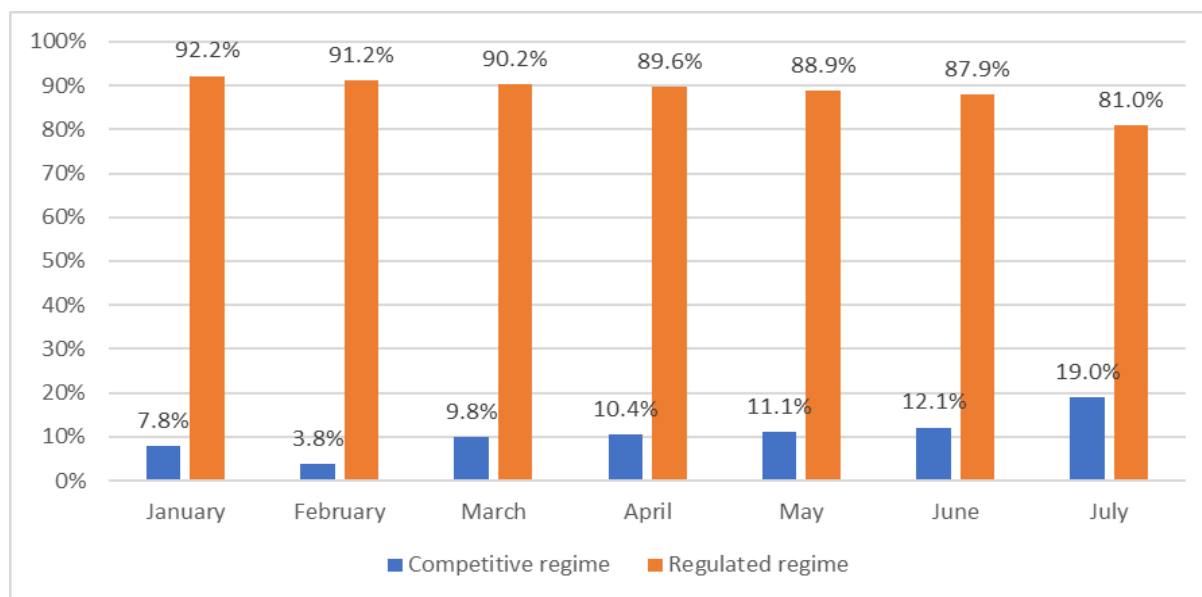
Another clarification is needed in this context. According to ANRE regulations, passive domestic customers, who did not exercise their right of eligibility after 1.07.2020, remain with the previous supplier, who sold them natural gas under a regulated regime, the supply will be made under the previous contractual conditions (regulated), but at competitive prices communicated to customers by the supplier during the pre-liberalization period. For simplicity, we will sometimes refer to these customers as customers who are supplied with natural gas under a regulated regime, although this regime formally ceased on 1.07.2020.

At this moment, the pre- and post-liberalization situation will be presented through the prism of several basic indicators, namely the number of domestic customers in the supply segment in a regulated and competitive regime, the number of active suppliers in each of these segments, the weights related to suppliers, as well as elements regarding the natural gas offers made by them.

According to ANRE regulations, natural gas for domestic customers can be classified into one of the following categories, depending on natural gas consumption: C1 - consumption below 280 MWh / year, C2 - consumption between 280 and 2,800 MWh / year, C3 - consumption between 2,800 and 28,000 MWh / year. On 30.06.2020, ANRE information shows that in Romania there were 3,378,722 household consumers who were supplied with natural gas under a regulated regime, of which 99.97% fell into category C1, 0.03% fell into category C2, in while only 15 households were included in category C3. Consumption category C1 is therefore the one that really matters.

Figure 1 shows the evolution of the number of household customers in the first 7 months of 2020. It is observed that, in the semester prior to liberalization, the total number of domestic gas customers in Romania increased by about 1.2% (approximately 44,000 new household consumers in June compared to January 2020). This value also increased in July 2020 by

about 11,000 consumption places, making the advance in the first 7 months of the year to be about 1.4%.



**Figure 1. Percentages of the household consumers, between January-June 2020**

*Source: Romanian Energy Regulatory Authority (ANRE)*

The changes are more important at the level of the two components of the set of household customers. Thus, the number of households consuming natural gas competitively increased by almost 170,000 in the first 6 months of the year, representing an increase of over 57% compared to the level of January 2020 (when there were about 290,000 such places of consumption). As a result, the total share of domestic customers who were supplied with competitive natural gas increased from approximately 7.8% in January 2020 to 12.1% in June 2020.

This development resulted in a preliminary effect on the liberalization process announced for 1.07.2020, given that the natural gas suppliers had specific obligations, established by the regulatory authority, to inform their customers about the changes in the supply regime, as well as for the communication of tenders based on which the supply of natural gas was to be ensured from July 2020.

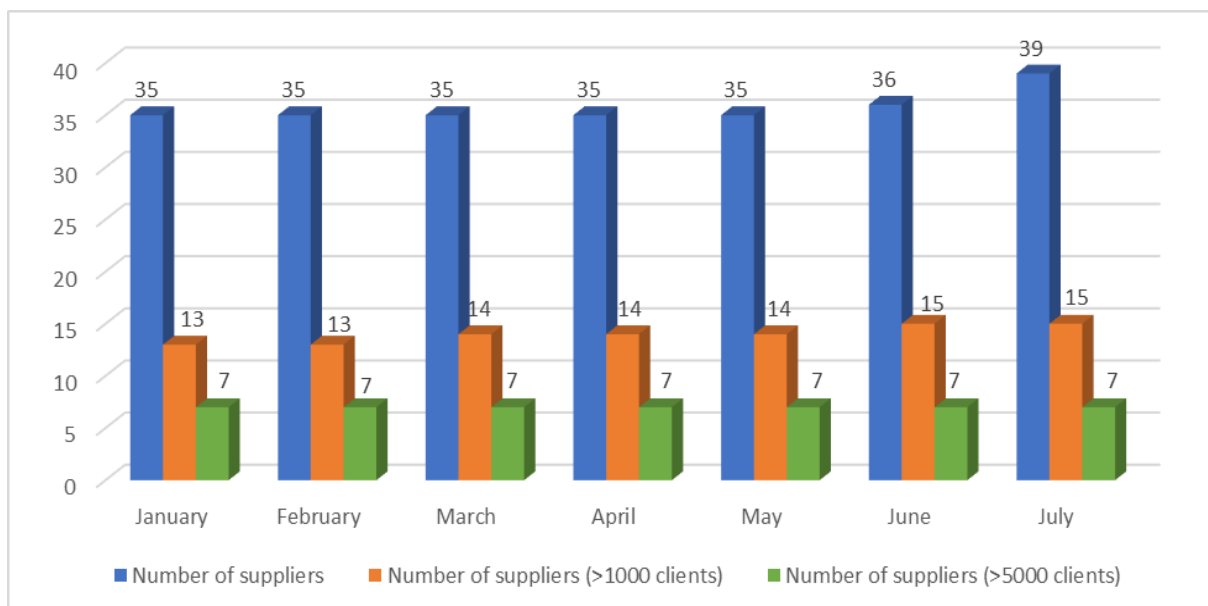
The increase in the number of home customers in the competitive regime was accentuated in July 2020, the first month of liberalization: according to the data of the ANRE, over 265,000 household customers went from regulated to competitive regime, which means that in July 2020 the share of the supplied natural gas in a competitive regime in the total number of domestic customers reached 19%.

An important element that will have to be closely followed, is the fact that most domestic customers who switched from regulated to competitive in the first month of liberalization have not changed their old natural gas supplier. Specifically, according to the information collected by the competition authority, only 2% of the domestic customers who switched to the competition regime did so at the same time as the change of the supplier from which they purchased natural gas in a regulated regime.

According to ANRE information, before the complete liberalization of the natural gas supply activity for domestic consumers, 86 suppliers were active on the Romanian natural gas

market, a value similar to that of the beginning of 2020 (84 suppliers) and from the middle of the previous year (85 suppliers).

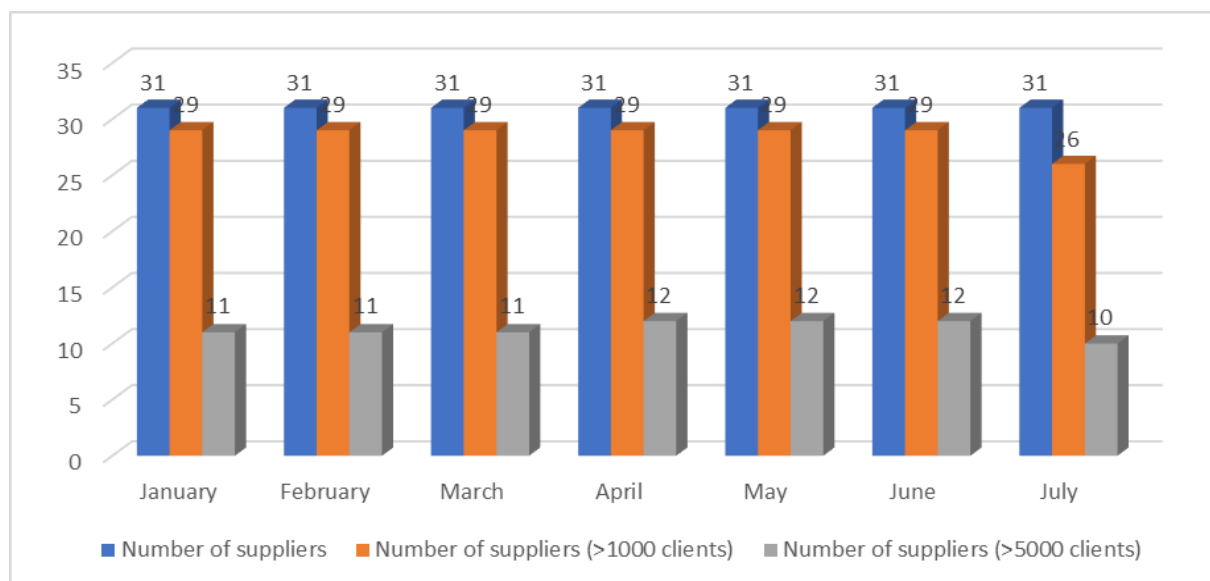
Less than half of the suppliers on the market addressed domestic customers, some supplying them with natural gas on a regulated basis, part on a competitive basis and part in both ways (the rest of the suppliers preferred to supply natural gas to industrial consumers, which ensures much higher consumption per customer, but most likely lower sales margins). The graphs below show the number of natural gas suppliers who had domestic customers in their portfolio, separately for those who supplied them with gas on a competitive or regulated basis, respectively.



**Figure 2. Number of suppliers with household consumers in the competitive regime, January-July 2020**

Source: Romanian Energy Regulatory Authority (ANRE)

Figure 2 shows that, in the first half of 2020, between 35 and 36 natural gas suppliers had domestic customers in their portfolio to whom they supplied gas on a competitive basis. Of these, about 13-15 suppliers had over 1,000 household customers, while 7 suppliers served over 5,000 household customers each. In other words, most of the competing natural gas suppliers had a small customer base. The number of suppliers with a portfolio of competitive home customers increased slightly in the first month of liberalization, but the data available at this time do not allow the breakdown by category of suppliers in July 2020 (over 1,000 and over 5,000 customers, respectively).



**Figure 3. Number of suppliers with household consumers in the regulated regime, January-July 2020**

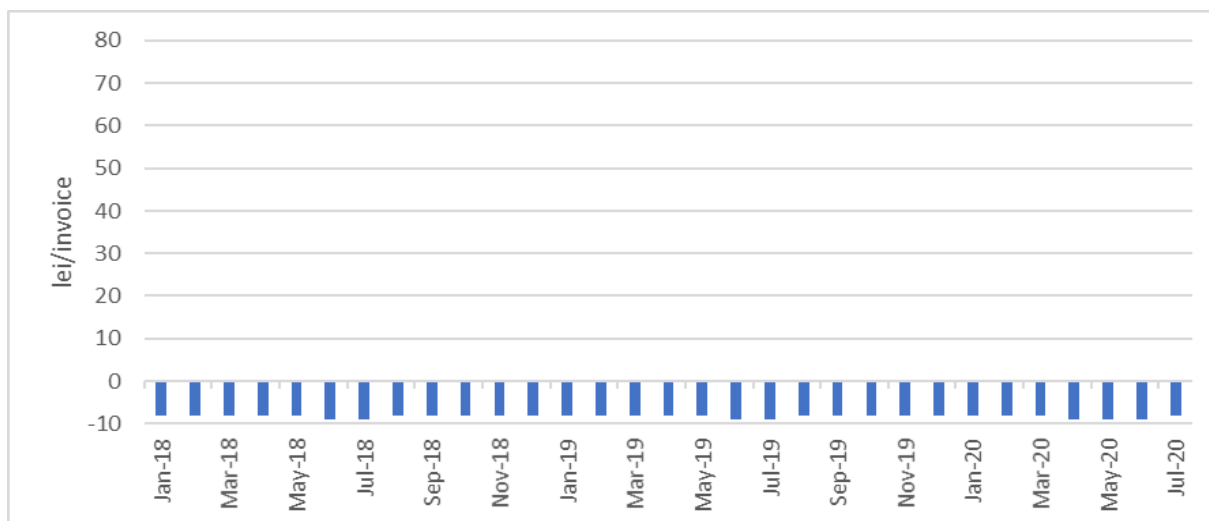
Source: Romanian Energy Regulatory Authority (ANRE)

The above graph shows that in the first month of full liberalization of the supply of natural gas to the domestic consumer, the number of suppliers with non-eligible household customers in their portfolio decreased slightly, especially in the case of those with a more substantial portfolio. customers. These values will be further reduced as home customers opt for competitive bidding.

An additional element that we present in this section refers to the number of natural gas suppliers present with standard offers in a competitive regime dedicated to household customers, included in ANRE's online comparator of supply-type offers.

The information available at this time shows that at the end of May 2020, one month before the start of liberalization, the ANRE comparator included standard offers for 46 natural gas suppliers, companies that already had domestic customers in their portfolio to whom they supplied natural gas, in a competitive regime, as well as suppliers trying to attract such consumers. In July 2020, the number of suppliers with standard offers included in the comparator increased significantly to 61 companies, demonstrating the increased interest of domestic natural gas suppliers for domestic customers. In August 2020, 62 suppliers had standard offers published in the ANRE comparator.

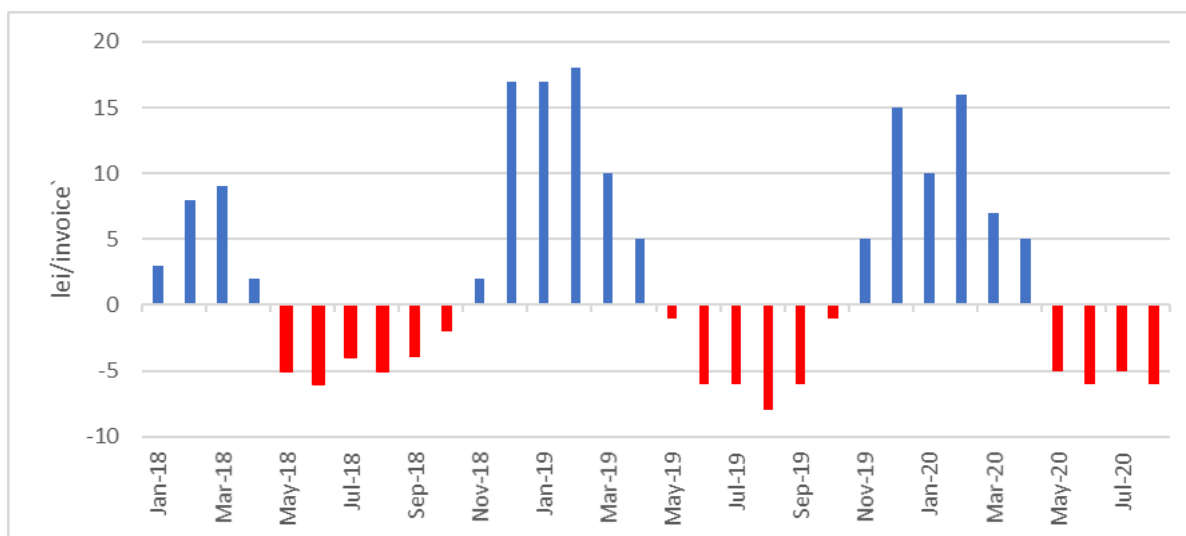
We illustrate below the monthly advantage / disadvantage of the subscription offer over the non-subscription offer: positive values indicate that the subscription offer benefits the household customer, while negative values show a disadvantage generated offer with subscription. The simulations are performed for the consumptions made between January 2018 and August 2020 for the three customers indicated above.



**Figure 4. Advantage/disadvantage of the subscription vs. non-subscription of the apartments without central heating**

Source: Romanian Energy Regulatory Authority (ANRE)

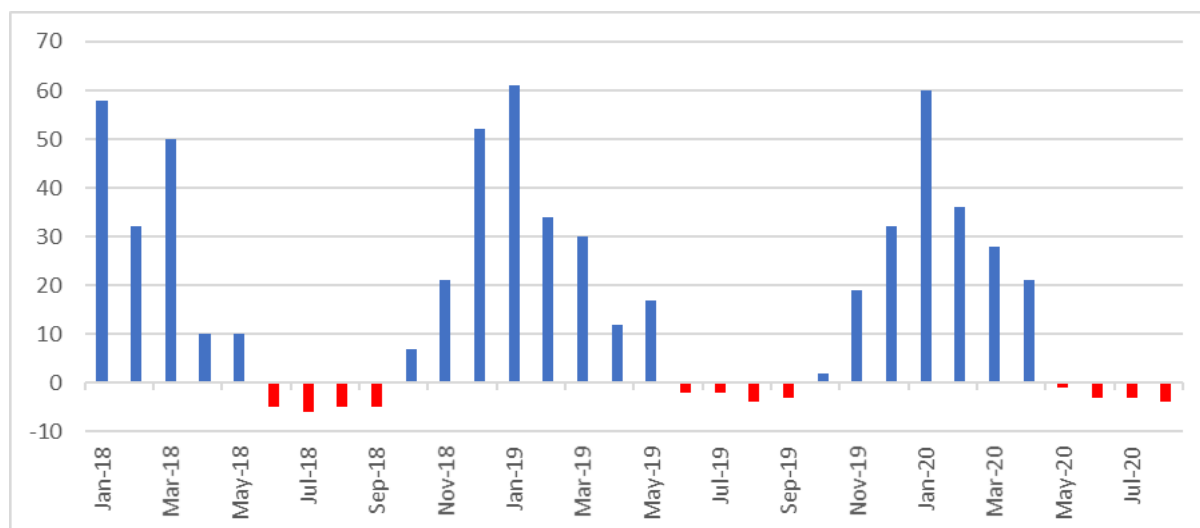
In essence, the calculations show that the low volume of natural gas consumed by this customer makes the price difference between the two offers insignificant, which is why the subscription charge leads to a relative loss of 7-8 lei / month, respectively about 90 lei / year for the domestic client with an apartment without own central heating who would opt for the offer with subscription.



**Figure 5. Advantage/disadvantage of the subscription vs. non-subscription of the apartments with central heating**

Source: Romanian Energy Regulatory Authority (ANRE)

The higher consumption of natural gas during the cold season means that in those months the household customer who owns an apartment with its own central heating has an advantage of about 11-18 lei/month, while the lower consumption during the hot season makes the impact negative of the subscription on his invoice to be between 5 and 8 lei/month. At the annual level, this household customer would have an advantage of 35-55 lei if he chose the subscription offer, this value depending largely on the severity of the winter months.



**Figure 6. Advantage/disadvantage of the subscription vs. non-subscription of the households for houses**

*Source: Romanian Energy Regulatory Authority (ANRE)*

The example of the house implies a much higher consumption of natural gas in the cold season. Therefore, during this period, the benefit of the household customer generated by the lower price of the subscription offer considerably exceeds the value of the subscription, the monthly difference reaching up to 60 lei/invoice. During the summer, the lower consumption of natural gas makes the subscription disadvantageous for this customer, as in the case of the other two previously presented. At the annual level, the client with a house would benefit from an advantage of about 200-220 lei by accepting the offer with subscription.

The above simulations depend on the actual level of natural gas consumption, the value of the daily subscription, as well as the difference between the price of natural gas in the subscription offer and the offer considered as an alternative. We believe that the choice of household customers for offers proposed by natural gas suppliers should be exercised after performing such simulations, so that the customer can assess for his individual case the advantage or disadvantage of offers with/without subscription. This is because subscription gas offers, which often involve lower gas prices, could prove to be disadvantageous for household customers with relatively low gas consumption.

#### 4. CONCLUSIONS AND RECOMENDATIONS

Given those presented in the previous section, we appreciate that, so far, the process of liberalizing the supply of natural gas to the household has not had a significant impact on final customers (in the first month since the beginning of liberalization a large part of while the vast majority of those who switched to competition did so without changing the current natural gas supplier).

Most likely, this is the result of a combination of factors. On the one hand, the low volume of natural gas consumed during the hot season may not induce a particular appetite for switching the current supplier, as may be the case during the cold season, when consumers may be much more interested in the price of natural gas and the price differences of the various suppliers. However, the natural gas offers made at the beginning of the liberalization process may not have been attractive enough to determine the change of the current natural gas supplier by



domestic customers. Finally, the level from information of domestic consumers of natural gas on the liberalization process in general and on how to change the supplier could be lower than desired.

In these circumstances, one recommendation is that it is necessary to carry out an intensive, multi-directional public information campaign (for example, on the role of various companies active in the natural gas sector, on to the elements that form the final price of natural gas, regarding the way of changing the natural gas supplier, etc.). We believe that this information campaign should use both traditional media (TV spots on national and high-audience channels, radio ads, mailing, etc.), as well as online and social media, so that the campaign reaches a significant part of the target population. From our perspective, the information and outreach efforts made at the beginning of liberalization should be intensified and continued throughout the process, as the competitive pressure exerted by informed home consumers is essential for the success of liberalization.

As a second recommendation, we consider that, at this stage in the liberalization process, consideration should be given to the obligation of natural gas suppliers to provide their customers with a standard supply contract, which should provide for single terms and conditions, set out in -a clear, transparent, and complete manner, the only parameter that may differ from one supplier to another being the final price of natural gas. However, the offer of this standard contract by the natural gas suppliers should not limit their right to propose to the domestic customers other offers/contracts in the competitive market. In essence, the recommendation concerns the obligation to offer a standardized contract by all suppliers, without limiting their commercial freedom to offer home customers and other contracts in a competitive manner.

We also consider it appropriate for the regulatory authority to define regulation of sub-categories of consumption for domestic gas customers, to subscribe to category C1 (consumption less than 280 MWh/year), and to fold better on the reality of Romanian customers. In the case of defining such sub-categories, we appreciate that gas suppliers could propose offers better adapted to the needs of household customers. For example, household customers with relatively high consumption could benefit from lower prices per MWh, which would amount to a more pronounced manifestation of their bargaining power (relatively higher than that of low-consumption customers).

If these recommendations are considered useful to ensure a set of basic (minimum) conditions necessary in the customer-natural gas supplier relationship, we appreciate that the legal possibility of action of ANRE in this regard should be evaluated. If the regulatory authority does not have the legal leverage to implement this recommendation, we believe that the adaptation of the regulatory framework could be considered to allow ANRE such an intervention.

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