

Connections between the promoting policies of the Romanian gas companies towards a sustainable consumption and the consumer protection

Research-in-Progress

Abstract.

This study considers and defines the relationship between the policies the gas companies and gas distributors use in order to promote and encourage its customers to behave responsibly and maintain a sustainable consumption even in the highly debated activity sector, energy. Starting from the definition of sustainability, "meeting today's needs without sacrificing the ability of future generations to meet their own needs" (Sustainable Development Goals, 2030 Agenda, 2015), also known as sustainable development, companies underline and support the importance of such a development policy. Corporate Social Responsibility is an aspect of corporate governance through which companies have initiated a range of socially responsible actions that can be quantified in terms of sustainability and sustainable performance. These actions will be analyzed and researched during the article. The indicators will be measured and the main results highlighted. The essential role these companies have in the energy field in Europe, together with innovative sustainable development policies, help to avoid, reduce or control the harmful impact of industrial activities on the environment and population.

Keywords: Sustainable Consumption, Consumer Analytics, Big Data

Introduction

You have probably recently heard the expression sustainable consumption in many contexts, some of them related to the very actual theme of sustainable development. However, most of the time, Responsible Consumption has many meanings and it does not seem to be very clear every time when it is being referred to. Perhaps the most significant aspect regarding Responsible Consumption is that there is another kind of consumption, the irresponsible one. It seems a little discouragingly, but if we use the rarity attribute, does it really mean that in all other cases the term "*irresponsible consumption*" is justified? The answers of the researchers in sustainability is definitely positive. Most of the times the consumer practices that we are familiar with are irresponsible. How about the fact that we are opening the windows in our homes to cool the room instead of slowing down the heat? This is a very simple trick that the gas distribution companies offer its consumers in order to have a more responsible consumption.

However, it is worth noting: responsible consumption does not exist as such, but is a critical movement of the consumer society, a value-for-money consumer spending movement. It is possible to talk about Ethical Consumption, Green Consumption, Critical Consumption or Consumption based on solidarity. However, all these involve another type of consumer: the consumer-citizen, concerned about the impact of his everyday consumer acts, aware of boycott practice, fair trade and various systems.

The current article provides research on how the gas distribution companies can provide a more sustainable environment through CSR activities and projects. First of all, it can be accomplished through lower technological consumption, which will be further explained and presented, but also by promoting a

sustainable consumption to the ordinary citizens. Related to the sector of activity in the field of national gas transport and the obligation of efficiency, the study creates a report of its responsible consumption.

Literature review

Energy is an interconnected and modern commodity that is essential for our modern economy to continuously progress (Hansen et al., 2013 and Ringler et al., 2013). However, the energy sector's unsustainable reliance on fossil fuels is responsible for at least two-thirds of our nowadays global greenhouse gas emissions (The International Energy Agency, 2016a).

The mining and industrial sectors are some of the largest consumers of this unsustainably created energy. For improving energy efficiency these two sectors are a large potential. (The International Energy Agency, 2016a and Rahman et al., 2016). There were several attempts for reducing energy consumption and greenhouse gas emissions over time through a range of treaties such as Paris Agreement. (United Nations, 2016).

“Nevertheless, the underlying mechanisms for reducing emissions can result only from sustainable energy utilisation by the consumer” (International Energy Agency, 2016b). There is an obvious need of the humanity to enhance the sustainable production or to reduce energy consumption. There are plentiful and diverse feasible alternatives which can contribute to sustainable energy consumption (Abdelaziz et al., 2011; Chu et al., 2016; Poveda, 2017; Poveda and Young, 2015), but “only a few have applied big data to achieve this goal” (Song et al., 2017; Zhou et al., 2016).

Based on the abovementioned evidence and gaps, the following sections of this paper will present the methodology used and the results obtained together with their discussion

Methodology of research

This article is the result of a deduction and induction, investigation, critical and comparative interpretation of numerous national and international studies on the research theme. It is a presentation of the current situation of the Romanian gas companies towards a sustainable consumption and its implications.

Another important source for this article was an interview with an officer from the Romanian National Gas Transmission System. The selected methodology for the paper is a qualitative research technique, which involves “conducting intensive individual interviews with a small number of respondents to explore their perspectives on a particular idea, program or situation” (Boyce, 2006) and is very modern. The format of the interview is a structured in-depth one, which faces only one expert respondent: the data officer of the company. Since the interviewer can control the quality of the result, the training before taking it becomes crucial. The questions were organized in details and rehearsing the interview was a way to practice it. Still, open answers were expected and the continuity of the discussion was an unknown. The research will introduce a process that includes the three main steps: information retrieval, comparing the data gathered from the interview with the general information found on the internet about the subject and presenting the analysis in a narrative method.

One complex aspect of this analysis will be information retrieval and data preparation. The correct extraction and preparation of the data will have a major impact on the success of the study. The information retrieval process should be able to gather the latest policies released by the company. The real challenge is to find out even practices that are not very popular among organizations and what it takes in order to keep the security of a company intangible. After the information retrieval process, the data needs to be classified, the most important paragraphs of the interview must be selected compared to other companies practices.

Results and discussions

The National Gas Transmission Company (TRANSGAZ) about sustainability

Consistent with the principle of implementing responsible management in fulfilling the assumed mission, the company is aware that financial support for a noble cause or for an important purpose is vital. Therefore, through the initiated social responsibility programs and projects (CSR) the company demonstrate its status as a “good citizen”. The concern's essential role in the energy field in Romania and in Europe naturally complements its willingness to support the real needs of all those who contribute permanently to the good work. As a component part of the sustainable development strategy, the CSR policy aims to increase the company's accountability to employees, shareholders, partners, community and the environment.

The firm's corporate social responsibility policy is based on a set of principles that define this interaction between the company on one hand and employees, shareholders, partners, community and the environment on the other (Dima, 2016). Transgaz engages in community life both through sponsorship and humanitarian financial aid, as well as through corporate social responsibility projects initiated since 2010. The priority areas in which the company has been involved are: sustainable community development, education, sport, art and culture, humanitarian actions, health and environment.

Following the implementation of the principles from the Corporate Governance Code of the Bucharest Stock Exchange, the company started to gradually adopt and integrate in its business model best practices in CSR. Like this, the company increases both the efficiency of the management act and the value of the company by strengthening the confidence of employees, shareholders, partners and community in its economic and social potential.

Through all the proposed corporate social responsibility, volunteer, sponsorship and donation actions, Transgaz is ethically committed and contributes through transparent and responsible business practices to the sustainable development of the economy and to social cohesion.

Technological consumption

As a result of the annual balances of natural gas level at SNTGN Transgaz SA, between the quantities of gas entering and leaving the national gas transport system, there are certain differences called technological consumption.

According to the Guidelines for the Determination of Technological Consumption Considered Losses of Natural Gas in the Transport and Distribution Networks, a guide elaborated in 1999 and published under the aegis of the Ministry of Industry and Commerce (actual Ministry of Economy), the technological consumption is divided into:

Table 1. Measurable and Undefined technological consumption

Measurable technological consumption	Undefined technological consumption
Consumption in compressing stations	Technological consumption required in technological installations - replacement, inspection, adjustment, discharges of safety valves, leakages to dismantle connections on pipes;
Consumption in spaces and processes	Unidentified losses / defects of tubular material;
Consumption of repairs, pipeline rehabilitation, development of the National Transport System	Measurement error - operation of meters under improper pressure conditions. Inappropriate gas quality, precision of meters and gas chromatographs.
Consumption of technical accidents - cracks, pipe breaks.	

Source: Raportul Administratorilor, Societatea Nationala de Transport Gaze Naturale, Semestrul I, 2018

Evolution of technological consumption in Romania

The cost of technological consumption is recovered through the transport tariff, which is included in the operational expenses. The following figure shows exactly how the technological consumption evolved through the last years in Romania.

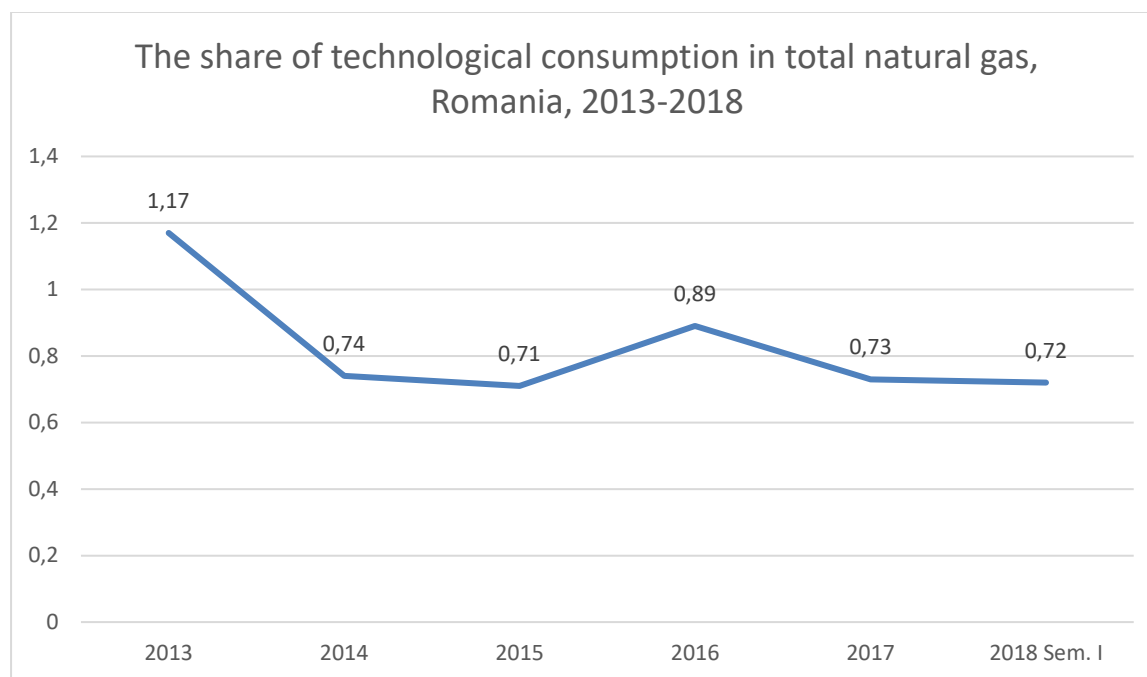


Figure 1: Share of technological consumption (Evolution Romania 2013-2018)

Source: Data retrieved and processed from: Raport ROMGAZ Rezultate financiare Semestrul 1 / Trim 2 2018

The decrease in the share of technological consumption in the total natural gas from 1.17% in 2013 to 0.72% in the first half of 2018 is the result of the effective management of the NTS operation, of the technical measures undertaken for this purpose.

Energy efficiency is promoted by natural gas distributors. Something is more energy efficient if it offers more for the same energy consumed, or the same services for lower energy consumption. First of all, the institution that promotes energy efficiency is The National Regulatory Authority in The Field of Energy (ANRE). This authority initiates projects and activities in order to determine the citizens to use less gas.

One of the popular projects in Romania is an infographic brochure with several tips and tricks for spending less on household maintenance by reducing gas and energy consumption. Other graphics show how the electricity consumption evolved in the households.

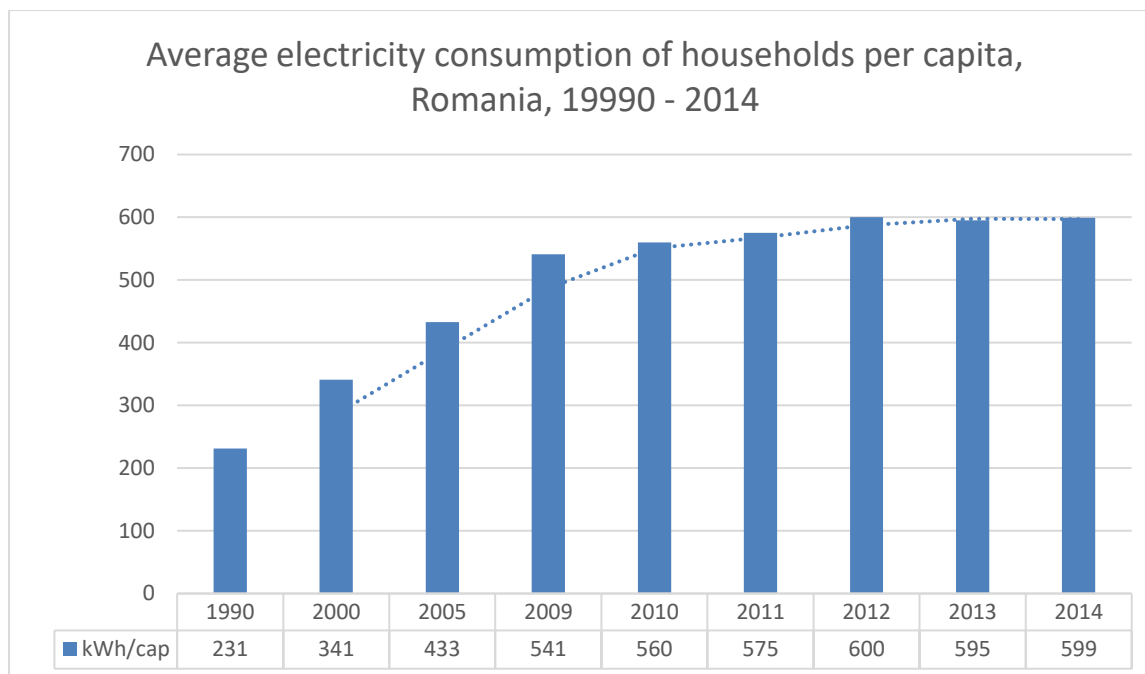


Figure 2: Average electricity consumption of households per capita

Source: Data retrieved and processed from: <https://www.worldenergy.org/data/efficiency-indicators/>

As seen in the below graphic, the electricity consumption is higher with every year, one of the reasons is the used energy resources. A better description is the following figure.

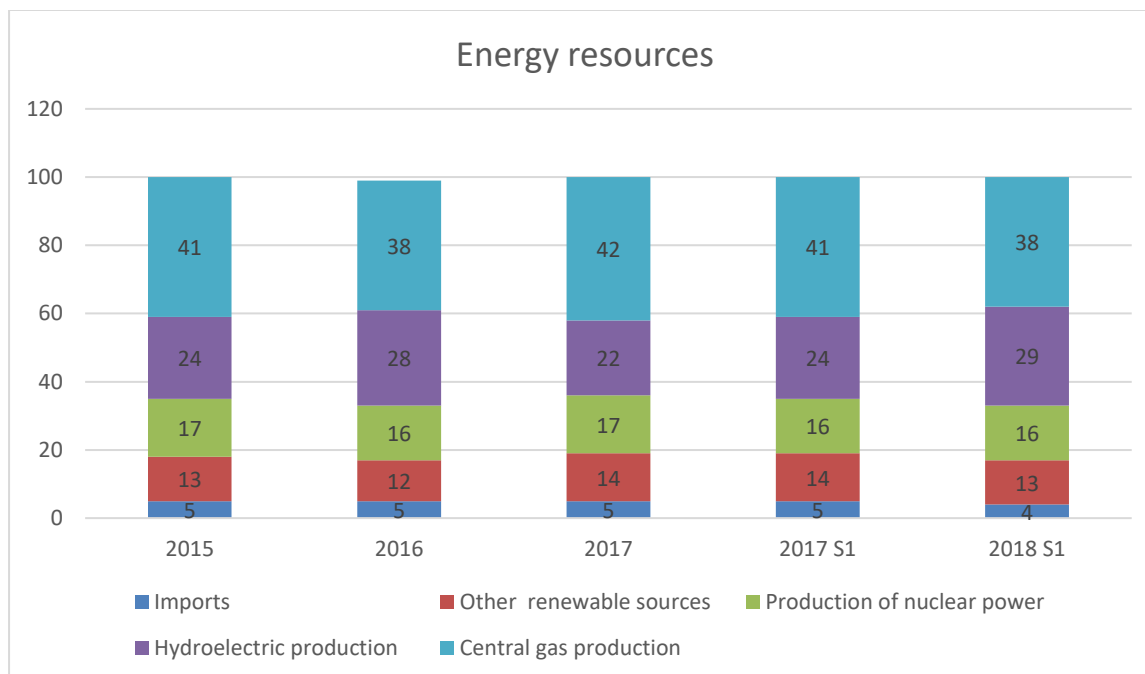


Figure 3: Energy resources in Romania

Source: Data retrieved and processed from INS Romania

A very good observation here is that only 26% of the total natural gas used are household consumers. The other 74% are industrial gas consumers¹ (this includes also the technological consumption). A better image to describe the current situation in Romania is the evolution of the actual gas consumption from imports and own source.

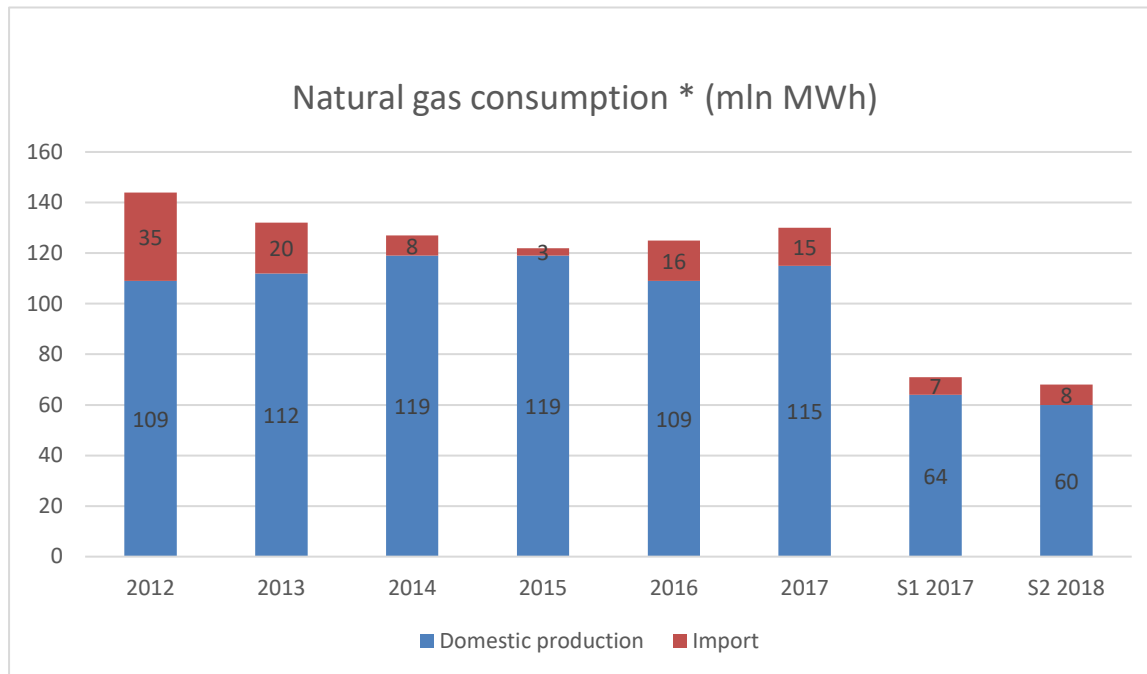


Figure 4: Natural Gas Consumption in Romania

Source: Data retrieved and processed from ANRE report, SI, 2018

There is an excellent decrease of the imports in the last years, because Romania is a country with own gas reserves. At the end of 2017, Romania still had proven gas reserves to reach a total of 100 billion cubic meters, shows data centralized by British Petroleum (BP). At European level, Romania has the fourth largest proven gas reserve, after the UK (200 billion cubic meters), Norway (1,700 billion cubic meters) and the Netherlands (700 billion cubic meters). Some other important factors that influence this trend are:

- the volumetric transport tariff is lower by 1,104 lei / MWh;
- the incomes obtained by NST from the reservation of capacity higher by 55.597 thousand lei;
- the capacity reservation fee lower by 0.186 lei / MWh.

The natural gas is an important source of clean energy. At regional level, Romania is one of the big countries producing natural gas, but also one of the biggest consumers in Central and Eastern Europe. Picturing this fact is the above figure.

¹ ANRE - Raport lunar de monitorizare 2018

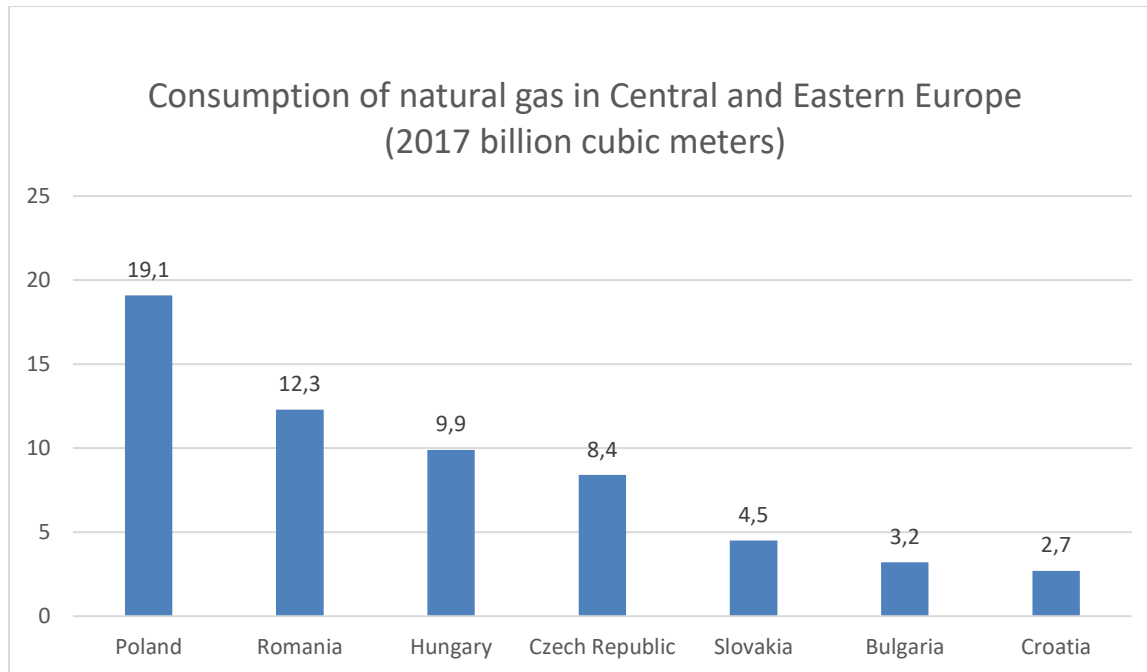


Figure 5: Consumption of natural gas in Central and Eastern Europe

Source: Data retrieved and processed from ANRE report, SI, 2018

Conclusion

Corporate Social Responsibility is an aspect of corporate governance through which companies have initiated a range of socially responsible actions that can be quantified in terms of sustainability and sustainable performance.

The national natural gas transportation company in Romania and local gas distributors are aware of the importance of the fact that sometimes, financial support for a noble cause or for an important purpose is vital. Therefore, through initiated programs and projects of social responsibility the companies are actively involved in the life of the community, thus demonstrating its status as "good citizen".

The essential role that these companies have in the energy field in Romania and Europe is naturally complemented by the desire to support the real needs of all those who contribute permanently to the good progress of its work.

This is why some key non-financial indicators were created and tested semestrial in order to maintain the social responsibility and a sustainable consumption.

Indicator: Increasing energy efficiency

Objective: Maintaining the share of technological consumption in total natural gas below 1%

Planned: <1

Accomplished: 0.72 (sem I, 2018)

Degree of achievement: 138,8%

Indicator: Customer Satisfaction

Objective: Achieving the targets set in the management plan (According to PP 165 Evaluation of customer satisfaction a score of 6-8 means that the services provided satisfactorily met the requirements of the clients)

Planned: 7,8

Accomplished: 7,7 (2017)

Degree of achievement: 98,7%

Responsible management can be described as an attempt to maintain the balance between the interests of the entire world (people, firms, the environment) for the prosperity of both the present and future generations.

In order to respond to this principle, the policies adopted within the gas companies aim at:

- Minimizing the negative impact of the activity on the natural and social environment;
- Encouraging a responsible and efficient consumption;
- Minimizing technological losses;
- Generating economic benefits to the local community;
- Improving working conditions.

Although this study presented some interesting insights, it also faces some limitations. Indeed, the prosecution of this research as well as future studies are called to explore this topic of interest based on a larger sample of interviews or by quantitatively analysing data collected through an extensive survey with companies operating in this field. In addition, it would be also interesting to carry out a comparison among the current situation of different countries in the European union concerning this sector.

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