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PhD Thesis

Energy security and resources management at the
beginning of the 21st century.

Romania in the actual European context

- ABSTRACT -

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ABSTRACT

KEYWORDS: ENERGY SECURITY, RESOURCE MANAGEMENT, EUROPEAN UNION, ROMANIA, STRATEGIC FIELDS, ENERGY POLICIES, SUSTAINABLE DEVELOPMENT

The evolutions of the international system of the last century have led to an increasingly consistent growth in demand for resources. Whether we refer to state or non-state actors, we face today one of the highest levels of resource consumption, both natural and generated by man. The economic development, closely linked to industrialisation and the exponential emergence of the services sector, has led to a qualitative and quantitative increase in both raw material demand and supply and in the demand for finished products. At the same time, internationalisation has functioned as a catalyst, bringing both benefits and challenges, while globalisation, by removing space barriers, has contributed to the emergence of strictly economic reasons when it comes to exploiting, distributing, consuming and storing resources.

In this whole context, the European Union and the Member States have made strong efforts to ensure their security and well-being. Based on economic reasons and determined by the need for peace, European communities have constituted the fundamental basis of today's reality. Moreover, the European wish for unity has developed and expanded to all levels of political and economic life in Member States, welcoming their willingness to give up part of their sovereignty, for a greater cause. But all of these aspects have been widely written, and literature specific to political science and international relations abounds in well-documented analyses and materials. However, on a European level, we are dealing with an issue that is becoming more and more current despite the fact that at some point it has been placed in a secondary place. This issue is energy security and resource management.

The motivation for choosing this subject lies in its actuality and in the dynamics proven by it. At the same time, personal concerns materialised around this subject and the expertise accumulated over time felt the need for a refinement achieved through such an academic journey. In addition, given the developments over the past eight decades, in which energy security - with implications in all fields (political, social, economic) and at all levels (international, regional, national and local) - has changed the behaviour of the actors, we find necessary any effort to observe, analyse and objectively discuss this topic. At the same time, the difficulty with which political objectives have been

implemented on a European level and visible and palpable changes have taken place involves a permanent questioning of the past and a strong need for valid answers.

From the perspective of our country, the usefulness of this PhD thesis entitled “*Energy security and resource management at the beginning of the 21st century. Romania in the current European context*”, originates in the need to know as well as possible the past and current realities in order to provide a solid basis for any future decisions. This is a timely moment because the last decade has seen an acceleration of the implementation of energy policy on a European level and at the same time has given rise to new challenges and impediments. That is why Romania needs to adapt quickly, to adopt strategically grounded positions, and ensure that despite the traditional reticence towards energy issues and the transfer of authority to the supranational European level, it will get everything that is most useful from this effort, while respecting both its own national interests and the objectives of the European community.

The process of European integration, together with phenomena such as globalisation and internationalisation, has led to a considerable increase in interdependencies on an international level and especially on a regional level. From the perspective of the European Union and the local geopolitical context, it is necessary to point out that the security of energy resources has been and continues to be an issue of geopolitical scale with profound geoeconomic implications. Over the last century, the security and availability of resources, as well as the evolution of their economic parameters, played a defining role in international and regional policy and economics. Thus, this research is based on the following premises:

- Regional economic welfare and political stability are in a direct relation of mutual determination with those of the Member States (in the case of the European Union);
- Working together and achieving a high level of convergence of efforts are two of the most important tools used by actors in order to ensure their own security and the necessary framework for development;
- On a European level, energy security will see new developments and will be one of the main elements to define trade and environmental policies;
- Future rivalries between actors will materialise not as direct confrontations but in the shape of performance competitions between regions - as a result of the process of regionalisation and polarisation;

The present approach is based on the intention to reach the following research objectives:

- Establishing the most appropriate and effective tools and positions that Romania should adopt in the future in order to take part in ensuring its energy security both on a national and EU level;
 - Identifying key developments that have contributed to the current status quo and determining the role and impact of actors involved on the situation today;
 - Identifying the main dimensions of European energy security;
 - Identifying the position held by Romania in the regional context and the available opportunities;
 - Determining and presenting the theoretical resources needed to understand the empirical reality and their use in an attempt to describe and explain any further developments;

From the methodological perspective, all along the scientific pursuit we made use of both quantitative and qualitative methods and techniques. The theoretical foundation was made by reviewing specialty literature, content analysis and conceptual analysis, with the main purpose of determining the theoretical framework necessary in order to understand the realities under discussion.

At the same time, I made use of observation and analysis of documents as main methods of documenting and substantiating the present research. Thus, official position papers, pieces of legislation, previous research on related subjects, interviews and presentations from scientific debates, along with the books and articles contained in the bibliography, were analysed. Diversity, but above all the content of the documents, called for their analysis not only from a quantitative and qualitative point of view, which was materialised by a convergent use of case-methods and statistical methods. Therefore, the qualitative analysis involved the interpretation of the text, while the quantitative analysis was aimed at interpreting data contained in tables and statistical reports.

In addition, throughout the research was sought to identify and present causality relations, along with a descriptive analysis, where necessary. Moreover, the predictive study of the various facts and events, together with the inductive method, proved useful in order to validate or invalidate certain aspects discovered during the research. As a general theory, we anchored on the approach to security governance, being the most

appropriate in order to explain the European and national dynamics of the related energy sector.

The paper was structured into five chapters, as follows:

Chapter I, entitled *Theoretical perspectives linked to energy security*, brings to front elements of energy security theory based on a review of specialty literature and attempts to provide the conceptual delimitations necessary for the proper operationalisation of terms. Therefore, efforts to define the analysed concept, the dimensions it presents, functional parameters (the 5S / the 4A), have been identified and presented, in order to identify later the main risks, weaknesses and threats to energy security.

Chapter II, entitled *Resource management and sustainable development. an approach from the perspective of energy security*, completes the first chapter and brings into the academic debate the concepts of resource management and sustainable development, identifying the efforts to define, the main dimensions, the actors involved in the use of related instruments, the main processes and beneficiaries, all from the point of view of energy security. At the same time, the relationship between resource management and sustainable development was also discussed.

The third chapter, entitled *Energy security on the European union level - between national interests and common effort*, represents an analysis of the European climate from the point of view of ensuring energy security by conceptualising the notion of energy policy by identifying its role in the general context of the work, by determining the main typologies, and then focusing on the European energy policy. The way in which energy policy appeared was studied as well as what it was founded on and what are the most recent developments in relation to energy security. In the second part of the chapter, the European strategy for energy security has been analysed from several points of view, so that in the last part we can identify the main contemporary realities of energy security on a European level.

Chapter IV, *The implications of European energy security for other sectors and for the community in general*, analyses energy resources as a tool of power and assesses the impact on energy security, to later bring into discussion the main geopolitical configurations and implications determined by resource dependence on a European level, both from an internally and external perspective. The second part presents the EU

in relation to NATO, as a strategic partner and to Russia, as the main external resource provider.

The fifth chapter entitled *Romania. Past, present and future from the perspective of energy security and sustainable development*, identifies the current situation in terms of resources and production, determines the evolution of consumption and availability of resources, presents the legislative and institutional framework, then brings front the main interests and political divergences, the national energy strategy and other issues, with the main purpose to sketch a clearer picture of Romania's position and role in the European energy security context. Our approach ends with the section for conclusions and the presentation of the bibliography used.

Following the academic approach represented by the present paper and given the research carried out over the past years, we can conclude in a documented in respect to the implications and transformations imposed by energy security and resource management on a national level and on the regional level represented by the European Union. Thus, from the point of view the theoretical evolutions and approaches related to energy security, we find an exponential development of the issues and the approaches especially because energy security and resource management had to respond to a more complex variety of situations.

Therefore, we are currently dealing with a more extended approach to energy security, both on a national and a European level, determined by the dependence relationship that has formed between the economy - energy and the environment protection. We have noticed a multidisciplinary development of concepts and this can most easily seen during the development of energy policy on a European level. Past decades evolutions have led initially to an energy approach in relation to issues pertaining to environmental protection. This happened due to the fact that even since the time of European communities, states considered energy management as belonging exclusively to them and refused an integration of efforts on a supranational level. However, the development of European integration and the deepening of this complex process have repositioned the subject of energy, giving it an important role in the Community approach.

From a legislative and political point of view, a shift was gradually made from passing references to well-established strategies. Thus, we can see that in 2018, the

European Union is equipped with a complex political and strategic framework for energy security and resource management, whose main purpose is to ensure the convergence of national efforts. The European energy policy is complemented by the European Energy Security Strategy, and this aspect creates a sufficient framework for national interests to be projected into the continental debate.

However, Member States are addressing the issue of energy predominantly from a national perspective, and only when they can easier achieve their objectives they turn to Community tools and mechanisms. That is why the common energy market and the reaching of a satisfactory level of network integration on a European level are processes in their early stages. Another issue that has led to this underdevelopment is represented by the delays and the reluctance of member states to transpose the provisions of the *acquis communautaire* on a national level. As such, it is now difficult to talk about a common and unitary voice of the European Union in terms of energy security and resource management.

This negatively influences the community's ability to play competitively on the international energy market stage. Moreover, the resource needs are different and the involvement of member states in securing their necessary quantities leads to bilateral agreements or approaches to external partners that hinder domestic developments. Dependence on Russia, price volatility, lack of consensus and credible engagement of Member States, emergence of nationalist currents, deterioration of relations with strategic partners - such as the US and other international policy issues - are the main elements that put pressure on the European Union and develop impediments to meeting their short, medium and long term energy goals.

Another approach on an EU level, namely the one concerning sustainable development and environmental protection, poses additional challenges. We can say that the European Union, especially over the last three decades, has made efforts both for the quantitative development of the energy sector (production of resources, facilitation of imports and access, development of networks and increasing the degree of operational integration) and qualitative development of alternative sources promotion of energy from renewable sources, modernisation of existing networks, increase of interoperability, etc.). Thus, to a certain extent, the relatively slow pace of transformations in the field of resource management and energy security is justified.

On a national level, member states still reserve their right to act according to their own interests, given the importance of energy security in relation to national security. Most of the time, they move along the principle of meeting individual needs, in the detriment of taking part in joint efforts. Whether this is a useful approach or not, only the future will be able to confirm it. From the perspective of Romania, energy security is a fundamental element of national security, and our geostrategic position involves both challenges and impediments. On the one hand, being on the periphery of the European Union, logistic and operational integration with developed countries is more difficult. On the other hand, we are in a favourable proximity to energy sources: the Caucasus, the Middle East, Russia. However, Romania still has much to invest in developing energy security at least at the political level, both internally and externally. It is necessary to develop and update the legislative framework, to bring standards in line with the principles promoted on a European level and to increase the resilience of energy systems.

During the years of research on this PhD project, both on an EU and a national level, several key elements have stood out in what concerns defining and understanding the need for a comprehensive and coherent legislative framework for the energy sector. On a European level, the liberalisation of the energy market has been set up since July 2009 with the adoption of the third legislative package on internal electricity and gas markets, and its implementation has been imposed for completion by March 2011. It was followed by the failure of the Nabucco project, which was intended to be implemented as a first measure to reduce the EU's dependence on Russian gas and which would have given Romania the opportunity to access another energy source. The worrying dynamics of the global warming phenomenon and the increasingly visible environmental repercussions have led to an agreement in Paris in 2015 on the commitment of participating states to take concrete action concerning CO₂ emissions levels, and focus their policies on increasing the use of renewable energy. Previously to the Paris Summit, the EU was trying to consolidate in its turn its principles and the structure of a future Energy Union, having in mind as well the introduction of energy security as one of the major objectives of this new community structure. Furthermore, through the European Strategic Investment Fund or the so called "Junker Plan", the EU was concerned as well with investing in energy security and infrastructure as well as in mechanism related to renewable energy. The implementation of the "BREXIT" process, in which Great Britain will leave the community structures will prove to be a challenge

in the field of energy as well, where there is a risk of a decrease in support as far as nuclear exploitation of unconventional energy sources is concerned.

Within this entire timeframe marked by important events on an EU level, Romania was trying to keep up in terms of projects belonging to the energy sector. In relation to the above, we can point out that on a national level, the legislative framework has been improved with decisive projects as far as giving priority to the energy sector action lines is concerned in an attempt to transpose as many of the energy objectives assumed as an EU member state. Among those we note: Law 220/2008 for establishing the promoting system for renewable energy production, Law 123/2012 which practically transposed the “III Energy” pack and which consisted a starting point for the Romanian energy field. Law 185/2016 concerning certain measures necessary to the implementation of projects of national importance in the field of natural gases, which created the legislative framework for the development of the BRUA project, Law 165/2016 concerning the safety of offshore oil operations which transposed the CE 2004/35 directive, Law 34/2017 concerning the installation of infrastructure for alternative fuels, Law 171/2018 concerning the approval of Government Emergency Ordinance no. 64/2016 for the modification and completion of the Electric Energy and Natural Gases law 123/2012, as well as the recent Law Project regarding certain measures needed for the implementation of oil operations by holders of oil agreements regarding offshore oil perimeters which emerged out of the need to create a normative framework concerning the ensuring of necessary conditions for these types of extremely complex investments.

Throughout this time and by combining these processes with the challenges of the dynamic normative framework, Romania still lacks a modern Energy Strategy, adapted both to the needs of the sector and to the citizens, able to structure the medium and long term objectives of Romania in the energy field on a national level, as well as its commitments to the EU. Thus, energy policies should be structured on two coordinates: the interests of Romania as a leader in the region and the application of European policies and standards in the field. The mechanisms of integration of the national energy sector into the European one and the alignment with European standards are facilitated by two clear advantages that Romania possesses compared to other states: a balanced structure of energy production and relatively large natural resources. At the same time, however, as mentioned earlier, the systemic risks faced by the Romanian energy sector must not be ignored.

In order for it to become a reference pole in the field, Romania's Energy Strategy needs to be assumed by the entire political class, implemented and permanently actualised based on future evolutions which eventually would have to be evaluated each year by means of a report presented by the Government in front of the Parliament. Also, ensuring Romania's energy security and the increase of its level of autonomy based on a National Energy System that is efficient in all its sectors (extraction, provisioning, production, transport, distribution and delivery), which would generate economic competitiveness, accessibility and customer protection, as well as durable development will constitute a support for economic policies in industrial sectors and not only.