

# UNIVERSITY OF CRAIOVA FACULTY OF ECONOMICS AND BUSINESS ADMINISTRATION DOCTORAL SCHOOL OF ECONOMICAL SCIENCE DOMAIN ACCOUNTING



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### **DOCTORAL THESIS**

### **SUMMARY**

IMPACT OF COSTS ON THE DECISION-MAKING PROCESS IN THE ELECTRICITY SUPPLY SECTOR

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> CRAIOVA 2017

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#### **SUMMARY**

In the modern economy, strong long-term trends continue to be modeled by energy consumption through industrialization, urbanization and motorization. These trends are associated with increasing energy consumption and increasing demand for energy, increasing energy efficiency, production and consumption, and increasing diversification of energy sources. In Romania, the basis for developing the energy system was to take into account the membership of the European Union and the observance of the conditions of functioning of the single market created by the European Union, the national market gradually losing its traditional borders to become an integral part of the Union's single common market.

Romania has made the decision to open the electricity market, considering that it is important to create a market where participants can enjoy the benefits of a competitive environment, and the state is fully committed to creating a market by taking the necessary measures and creating a legislative framework dedicated to achieving this objective.

Given the particular importance of electricity for both the national economy and the welfare of the population, the state has taken over the task of organizing and operating the energy system. The result of this action was to create mechanisms for administrative control of prices and costs in order to prevent possible abuses. Compliance and submission of the energy system to the Community's directives and resolutions is the first step Romania must take, but in order to achieve the objectives of the Community directives and resolutions, it must initiate actions, create and implement harmonized regulations which will lead to the organization of an adequate legislative framework, which in return will effectively support the achievement of the objectives.

All of these challenges have prompted us to discuss some costefficiency tools to help energy providers optimize their activity and results.

#### **KEY WORDS:**

- energy processes
- energy history
- living standard
- energy efficiency
- strategic planning
- costs management
- costs optimisation

- economical performance
- analysis methods
- analysis models
- informational system
- audit energetic
- efficiency and effectiveness
- scientific research

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#### INTRODUCTION

Energy plays a fundamental role in shaping the human condition nowadays, being the main driver of economic and social development. Although the decline in oil production is no longer a cause for concern due to nonconventional methods of producing electricity, that is to say from renewable sources, this anxiety has been replaced by other complex challenges that place energy issues in the top priorities as topics to be debated, by the world's leaders.

Energy is the key to "advancement of civilization," and the evolution of human societies depends on converting energy to the benefit of mankind. Few have questioned this hypothesis, and appreciate that the standard of living and the quality of civilization are proportional to the amount of energy a society uses.

Considering the role of energy for society as a whole, the development of this sector is carried out under state supervision. The overall objective of the energy sector is to provide conditions to meet medium and long-term energy needs at affordable prices appropriate to a modern market economy and a civilized standard of living in terms of quality and environmental protection.

Global energy demand forecasts are alarming, doubling demand for energy by 2050. Globalization and regional integration processes are accelerating and there is a need to build a new global balance in the coming years.

The effects of turbulence in the global energy market have greatly diminished in recent years as a result of energy market liberalization, adequate supplies and import opportunities. However, dramatic changes are expected according projections made. Energy prices will be affected by the great need for investment and innovation in the energy sector. Competitiveness and security of supply are closely linked to climate change and will be undermined, unless electricity networks are upgraded, old facilities will be replaced by more competitive and non-polluting ones, and energy will be used throughout energy chain more efficiently.

The energy industry has recognized the scale of the challenges and through various organizations, universities, national forums, the European Union as well as international ones, solutions are being searched and analyzed.

Within the context of these challenges, cost-effective cost management tools are needed to support resource efficiency and provide affordable and innovative solutions, which are crucial in the long run. The need for cost management is a prerequisite for obtaining economic and financial benefits, but taking into account the impact of companies active in the energy field on society, their responsibility doubles.

In this context, **the importance of the research topic addressed** has as its main objective "The impact of costs on decision-making in the electricity supply sector".

The purpose of the whole scientific approach is to provide tools for controlling and streamlining the costs of energy-supplying companies in meeting and supporting the overall energy sector objective of "ensuring the conditions for meeting medium- and long-term energy requirements at a price affordable, suitable for a modern market economy and a decent standard of living, in terms of quality, safety, respecting the principles of sustainable development"

To achieve the primary objective, we will conduct research from a series of partial objectives, despite the interconnections between them, trying to delimit the pursued actions of theoretical and applicative character:

#### a) Theorethical objectives

- investigating the historical and current situation of the community and world energy community in general and of the Romanian one in particular;
- defining the overall conceptual framework of energy;
- addressing costs in the energy sector and their role in pricing;
- presenting the connections between national, European and international approaches in the context of globalization;
- highlighting the perspectives, opportunities and constraints of the energy system in the economic, political and social context.

#### b) objectives of applicative character

- identifying and applying specific methods and models in the activity of energy supply companies, implementing management accounting to maintain costs and prices under control thus gaining a competitive advantage in the market;
- formulating a conceptual model and recommendations for optimizing energy costs, on the process chain between supplier and consumer;
- demonstrating the applicability of the model through case studies.

#### STRUCTURE OF DOCTORAL THESIS

The stated theoretical and applied objectives will be addressed **within five research axes** in accordance with the intermediate and final goals of the research and which will aim at:

- induction in energy issues through the history, evolution and specific features;
- highlighting the informational valences of the current cost system and finding ways to reduce dysfunctions in order to increase economic efficiency;
- optimizing performance by means of calculation, monitoring and optimization of the cost of electricity supply;
- highlighting methods and models of calculation and cost control applied by CEZ Vânzare;
- identifying new ways of cost optimization, starting from the constraints of the general objectives of the international, European and national

energy system, "energy trillema": ensuring the increased need for energy, in terms of continuity, safety and environmental protection at prices accessible.

The first axis of research aims to make an induction in energy issues. We will do a presentation of the Romanian energy system, its evolution over time, the current situation of the energy system in view of the existing legislative and institutional framework, the potential of energy resources, production and consumption of energy, the priority objectives of the Romanian energy sector development. We will also present the opportunities and constraints of the electricity market in Romania in terms of belonging to the European Union.

**The second research axis** will focus on costing and pricing, by detailing and explaining cost-based pricing and / or tariffs for power supply services. Energy price formation must take into account certain principles that are not standardized in other economic processes, given the nature of the energy sector, which is of national strategic importance:

- efficient allocation of resources, not only between different sectors of the economy but also within the energy sector;
- respect for the principles of fairness and openess through fair (unbiased) allocation of costs among consumers, in line with the effort it exerts on the energy system;
- providing sufficient income to meet financial needs;
- establishing a structure of electricity tariffs, simple enough to allow metering and billing of consumption;
- taking into account other economic and political needs (subsidizing the supply of electricity for certain economic activities or geographical areas in order to encourage their development).

The third research axis will aim to present some of the methods and models of estimation, planning, calculation and cost control applicable to CEZ Vânzare, to optimize short- and long-term financial results. The scientific approach within this axis of research will in fact represent the contribution of the author to the achievement of the managerial accounting desiderata, namely the creation of value by value.

**The fourth research axis** will be based on a positivist research that will try to answer the question whether in the power supply system, statistical models of controlling the operational costs of supplying electricity can be used.

**The fifth research axis** will aim to develop a model for the implementation of an Energy Information Management System to reduce the costs of customers of energy suppliers.

Starting with the second research axis and ending with the fifth axis of research, we will base our research by fundamenting the measurement, control, efficiency and cost optimization directions on energy supply through managerial accounting on the basis of exhaustive documentation. We will focus our attention on how to measure financial-accounting performance in the field of electricity supply and on the tools used by cost accounting managerial accounting as a basis for decision-making. We aim to achieve an infusion of know-how, starting from a comparison between how energy markets are operated and are managed, namely, the management of costs

and the formation of prices and tariffs at European and international level in the field of energy.

We also proposed ouself that through benchmarking to find the criteria and levels of performance and excellence, setting an ideal quality and functional standard, and optimizing to set a real standard so that we get "the best of what exists ".

We are aware of the vastness of the subject and we propose that our study should discuss and analyze the most important aspects of the electricity supply activity. Our research is descriptive, explicative and even predictive, by highlighting some of the energy process developments and their economic implications.

The chosen topic is more than just current, and major universities bring their contribution through research and studies in the field that become essential to our very existence and our way of life. Contemporary life and living is based on electricity. Mankind has evolved on the basis of discoveries made by using electricity. At the moment, we encounter electrical energy everywhere in our lives. Starting from the assumption that we would not have access to electricity, this would actually mean we will not have access to anything that means our lives today: access to information systems, systems transport (trams, trains, airplanes, etc.), communication systems (radio, television, the Internet), and last but not least, we would be unable to produce large capacities to ensure consumption for the growing population. And all those listed at a fugitive passage in the review of how important electricity has become.

At the end of the paper, we will reserve a space for future conclusions, proposals, and developments to highlight the impact of costs on the decision-making process in the power supply sector. In fact, the cost is a true key and a permanent presence within the economic entities, a cost that needs to be determined and evaluated in accordance with the specifics of the business carried out. At the same time, we propose to analyze the premise that the current orientation of economic entities is no longer a matter of choice, but rather of professionalism, animated by the desire to obtain the economic-financial performance at the highest level.

The effort of this approach is particularly necessary due to the belief that analyzing, understanding, debating and confronting the ideas of cost-pricing and decision-making will be extremely useful and timely to clarify some important issues in relation to the proposed topic.

The methodological and theoretical-scientific support of the research is given by the concepts, fundamental principles and works of some outstanding authors such as: N.Berland, A.Boardman, S.M.Bragg, L.Capelletti, D.Khoutra, D.Caplan, C.Drury, B.Dudly, P.Druker, N.Garrison, D.Hansen, G.Helyette, R.W.Hilton, C.Horngren, H.Geman. H.T.Johnson, R.S.Kaplan, G.Leslie Eldenburg, S.K.Wolcott, G.McWilliams, M.Porter, N.Rich, H.Savall, V.Zardet, P.A.Sharman, P.Thomas ş.a.

To the works elaborated by the foreign authors can be added the studies elaborated by the autochthonous authors, such as: O.Anghel, A.Baciu, S.Briciu, O.Călin, D.M.Comănescu, I.Coteanu, L.Seche, C.Iacob, M.Niculescu, M.Man, M.Meilă, C.Mironeasa, M.Petcu, A.Pelin, M.Siminică, C.Tomescu ş.a.

#### Methodology of research

Each research axis will be investigated on the basis of a deductive reasoning, from general to specific, through a top-down approach.

In this context, the methodological perspective that we propose will appeal to the collection of qualitative and quantitative data.

The qualitative analysis will have as a starting point the study of the Romanian and foreign specialized literature on the analyzed field, the study of magazines and specialized sites, the analysis of some studies conducted by ANRE, the study of the documents provided by the CEZ Group management in Romania , mainly through Sales and interviews with decision-makers in the field of electricity supply companies, mainly from CEZ Vânzare.

The quantitative research will be based on the analysis of data collected from energy suppliers, comparative analyzes, statistical indices and correlations.

#### CONCLUSIONS

#### A. Conclusions

The Romanian energy system has tended to fall into the phenomenon of globalization, the effect of which has led to the de-monopolization of the electricity market. The competitive environment is a new one for this sector of the economy and any innovation or change has brought challenges that companies in this sector have had to accept and manage.

Starting from the vital role that electricity has come to have in contemporary society, we have analyzed the energy sector mainly from the Romanian perspective from complex perspectives. We started from world-wide statistics showing increased electricity consumption, understanding the need to diversify energy sources due to limited resources but also environmental protection and global warming prevention, naturally finding that for diversification of energy sources is needed investment in new production facilities.

Last but not least, we could feel the need to innovate and develop ways to increase energy efficiency, to find ways to reach the industrial and social goals of a modern and civilized society with less electricity consumption , a need that we have approached in our research, seeking solutions and finally coming up with concrete proposals.

The energy sector being of national strategic interest is controlled by the state through regulations and legislation. Even in such a vast, "massive" field for the country, unfortunately, also in our study we have noticed the legislative scandal and the inconsistency of legislation and regulations issued by the state.

Toată această analiză am realizat-o ținând cont de contextul schimbărilor importante care s-au produs în sectorul energetic, în ultimii ani, pentru a se atinge obiectivul final, acela de a crea o piață liberă și am plecat, pornind de la momentul zero al sectorului energetic românesc, arătând evoluția în timp a acestuia până în prezent.

We have done all this analysis taking into account the context of the important changes that have taken place in the energy sector in recent years to achieve the ultimate goal of creating a free market and and we started from the moment zero, of the Romanian energy sector, showing its evolution over time.

Energy policy must ensure that our country is open to investment, promotes regional integration and offers benefits cto onsumers, as a country belonging to the European Union.

The decarbonisation target is an internationally agreed target for 2030, so all governments have to find resources to provide subsidies for promoting new technologies, but also other energy innovations. There are also less costly but cost-effective solutions, such as reducing bureaucracy and promoting regional integration, creating a regional market with greater benefits for all

consumers. An equally impacting and cost-effective measure is the energy efficiency model that we have proposed in our research.

The global scenarios of major energy forums or organizations highlight energy efficiency and energy conservation as a way to address demand that exceeds supply by 2050.

There is a need for a change in the mindset of consumers first and the way they perceive their implications for energy consumption costs.

For the application of the energy efficiency principle, capital is needed to finance these measures or initiatives in terms of initial investment before it can be paid. Energy efficiency measures can be promoted through information, advertising, media, and including consumers actively involved in costing and making investments, which, as it has been shown in five years at most, is recovered or the government finding ways to subsidize and create regulations for energy efficiency, to achieve a higher level of energy efficiency enhancement.

The energy equation is becoming more and more complex every day. This complexity will not diminish until 2050. Working towards a sustainable energy mix is a major challenge for the 21st century. The complexity of the energy system is due to the fact that this complexity is actually costly: high costs due to the increase in network expansion, both in transmission and distribution systems, along with high costs for the construction of new power generation units, based in large part on renewable resources and, eventually, maintenance costs of old, obsolete, fossil-fired power plants.

There is no global solution to the issue raised by the energy system, but we can reach a solution by solving each of the smaller parts of the problem in order to reach the global goal of sustainable development with access to energy to the needs of our country, and raising the standard of living through access to innovative industrialization.

Already, we are also talking about the revolutionary concept of energy storage, but there are critical uncertainties as to the future development of these energy storage technologies, which from an economic point of view would lead to potential synergies, potential cost savings and economies of scale, but there is still a far future for this concept. Accessible, tested and feasible to implement are renewable energy technologies, energy efficiency and carbon capture.

However, we can not fail to remark once again that governments play a crucial role in shaping the frameworks for the functioning of markets, priorities and all initiatives in the energy sector, given the status of this industry and its strategic importance.

Based on the study of bibliographic references and case studies that are the subject of research on the impact of costs on decision-making in the electricity supply sector, the main scientific contributions can be briefly presented and we consider that they can be impact, especially if we consider words of Neal Dolnald Walsch "Do you want the world to change? Make changes in your own world."

Understanding the real business environment requires moving from simple accounting findings and facts to complex analysis and detailed knowledge of all the factors that influence the performance of a company, especially as we are talking about a niche business environment that until recently was a monopoly, the supply of electricity, and which in the last few

years has just become an open and competitive environment. In order to increase the performance of a company, for survival and development in a changing, increasingly competitive environment, where more than 100 companies that have a license for electricity supply appeared on the electricity market, is seen also the need for organizing a managerial accounting to meet the managers' information needs.

Through our analysis and research we show that the success and stability of a company depends on how it relates to the three dimensions of economic, financial, social and environmental performance. Opportunities capture, competitive advantage, and adaptability create the foundation for organizing managerial accounting and its use to find the directions for improvement and excellence for an electricity supplying company.

According to Nombert Wiener, "Order and clarity in business increases saving and winning tastes," and managerial accounting is a tool for gaining the vision of a winning future, from an uncertain and changing one.

In this context, we have evolved the challenge, to understand the Romanian energy system and to seek out winning solutions for the electricity companies, by starting and constantly reporting to us the definition, the principles and the purpose of the managerial accounting, to be the support for the managers to put "order and clarity" in managers' view for "saving and winning".

Starting from the belief that value is created by values, we agree with the conclusion expressed in the literature that managerial accounting is a safety net in managerial decision making or managerial functions (prediction, organization, control, etc.).

In order to be considered as useful and effective tools, managerial accounting methods and models must provide the company with real, measurable benefits and help in defining and achieving short term and long-term strategic objectives that can be assessed, corrected for the situation. Managers need to know, it is true, to use the "portable tool at the right time and in the right place" to see and feel at the organization level really the effect of using managerial accounting tools.

However, through the case studies, methods and models applied in CEZ Vânzare, we demonstrated the viability and importance of managerial accounting from many perspectives: planning, computing, forecasting, control, motivation, communication. The effects of using managerial accounting tools in CEZ Vânzare case have proven to be great and have led to economic growth and profit, because each applied method of planning and control has brought cost savings, each budget-based forecast and change-has brought a new profit margin.

From the analysis of all the methods and models used, whether we are talking about mathematical, economic or statistical models, or all combined, applied results profits. And then we naturally ask why on large-scale managerial accounting is not used, including at micro level? Is this not easily applicable or there is no knowledge and will?

The desire to find answers and to demonstrate that there are solutions regarding the measures and actions that can be taken by the electricity supply companies to improve the activity and make profit, by taking the best decisions by the management, has determined us to tackle a complex management accounting theme based on their cost and taxonomy, organizing

managerial accounting and focus on how to retrieve information from financial accounting, complex cost and price control and cost optimization methods and models such as budgets, Plan-Do-Check-Act method, Value Analysis Method, ABC Method, Variance Analysis Method, Profitability Threshold Method, statistical and mathematical methods such as histogram, control and correlation diagrams, Pareto and Ishikawa, the record sheet, finalizing the list of tools applied with stochastic models, probabilistic and prediction models, given the energy feature, of not being stackable and having a seasonal character.

Last but not least, we are able to add to this long list of managerial accounting tools that demonstrated its value, the SIME (Energy Management Information System) a model developed in the last part of our research inspired by the Canadian government model, adapted and applied in our case in order to create more value for electricity companies.

Therefore, regardless of the level at which they are applied, these tools serve for sizing the volume of activity in order to determine the amount and conditions of resource allocation and use as well as also sharing the responsibilities of those involved in achieving the objectives.

In conclusion we can state that the development of an economic entity must be based primarily on the knowledge of its own capacities, weaknesses and strengths but also on the knowledge of the external macroeconomic environment. Therefore, it is absolutely necessary for the entity to assume in its vision and mission, its values and the principle by which it ensures the maintenance at a certain level and its development in tandem with the economic environment in which it exists.

We appreciate that all managerial accounting tools, well chosen and implemented, have a motivational component to the entire staff of the company and serve the policy and communication department. In this way is realised a harmonization of the interests of the staff with the achievement of the assigned tasks and objectives, putting in place the positive motivation of the staff.

The conclusions of our scientific approach which had as central element to demonstrate, validate and innovate managerial accounting in the electricity supply companies are that in the current economic and social universe in our country marked by the gradual establishment of the free market mechanism and the energy sector, the assertion of new rules and game regulations, the way of thinking and acting as well as working methods are required to be constantly adapted and improved. In order to survive and to carry out a profitable activity under the conditions of market-specific competition, electricity supply companies need to be receptive, have an increased response speed and constantly adapt to new regulations, to new international requirements or to the European Union regulations and, last but not least, to the requirements of the consumer who can choose from now on. Although it may seem exaggerated, we can say that the entire activity of electricity supply companies needs to be visualized and projected through the managerial accounting "brain" and "senses".

Întregul demers științific întreprins până în prezent ne-a condus către demonstrarea rolulului esențial și multiplu pe care il poate căpăta contabilitatea managerială: instrument de informare, comunicare,

motivare, planificare, control, previziune, organizare, cunoaștere, punte de siguranță.

The whole scientific approach undertaken to date has led us to demonstrate the essential and multiple role that managerial accounting can play: information, communication, motivation, planning, control, forecasting, organization, knowledge, and assurance.

It is known and assumed that managerial decisions and decision-making are the knife top for having the assurance of winning battles in business world by managers. These are the key to a manager's success: "keep or drop?", "Buy or make?" And we can continue with the types of decisions a manager needs to take daily. One or the other answer to these questions means success or failure, it means winning or losing a battle for a personal manager and for the company.

Taking into account the above, we can state that depending on the activity, its complexity, depending on the internal processes, the customer orientation, the management information needs, each company must decide which of the managerial accounting instruments will adopt and implement. We have shown that the use of appropriate tools leads to the desired results.

#### B. Scientific contributions.

In our research, based on a specialized bibliography resonant with the proposed approach and the applicative aspects offered by CEZ Vânzare, one of the largest electricity supply companies in our country, part of the CEZ Group, which is among the top 10 companies in Europe, we followed the research axes and the objectives of the study, the chapters of the paper elaborated with the nucleus of the research axes and objectives, the main scientific contributions being presented succinctly in the following manner:

In the first research, we have tried to capture all the essential elements of the energy system from zero to the present, with the aim of creating familiarity with industry-specific terms, features and legislation for the best possible vision and understanding. The scientific contribution consists in carrying out a detailed analysis of the concept, the legislation, the energy policy, the evolution, the perspectives, but also the constraints of this system, also viewed in terms of belonging to the European Union, but also from the point of view of the international constraints. (Chapter I).

The national strategic dimension and character of this sector, both internationally and nationally, is rather an argument of the importance and timeliness of the research of the theme present in the elaborated doctoral thesis.

The second axis of the research was to introduce costing and pricing, by specifying and detailing cost types and their relevance to decision-making, data collection, costing, relevance of the accounting system on the cost of energy supply and the implications of the cost information system for decision-making.

**Regarding the second research axis,** the scientific contribution is to track the way data is transformed into useful information, in the context of a changing economic environment, starting from the idea that cost information is an instrument of decision-making.

We have asked questions that we have tried to answer, and the intention to answer these questions has allowed us to make a breakthrough

in essential elements of managerial accounting by bringing in front the stages of its development, the link to financial accounting, highlighting the differences between the two of them, the way in which take their mark on strategic and tactical decisions of companies, from financial accounting to managerial accounting, while pointing out the role of costs and how they can be controlled through budgets, for visible costs, and the importance of discovery cost savings hidden through the Savall model.

Studying the vast cost issue, we found that, through the accounting methodology, cost is a value concept that follows the expense principle, spending being cost elements, but to be useful to the enterprise's management they must be managed.

In this context, our purpose was to highlight the cost-related valencies and find ways to optimize it to achieve economic performance.

In order to demonstrate the above, we continued with the development of case studies and models of analysis, planning, forecasting, control, communication and motivation, using data provided by CEZ Vânzare. What followed has demonstrated the hypothesis, now without a doubt, that there are measures and actions that can be taken by electricity companies in order to increase their performance, with the emphasis being placed on the efficient management of resources using this goal methods and models of managerial accounting as we have listed above and developed. (Chapter III).

**The fourth research axis** was based on a positivist type of research, as we have already expressed and initially stated and we intended to answer to the question of whether the power supply system can be used statistical models to control operational costs of power supply and the answer is indeed positive.

It is precisely because of the seasonability, hard predictable nature and impossibility of storing electricity, is that these probabilistic methods, but based in probabilistic models of mathematical calculations are a "surplus of energy" for electricity companies and this is again demonstrated by studies case and given examples. (Chapter IV)

Therefore, choosing the most appropriate methods already tested, as well as initiatives and innovation in their own field of activity, can be the key to success for any enterprise that aims at achieving profit goals, but especially maintaining and expanding on new markets by providing competitive products. The use of stochastic models and methods, such as the Jump Diffusion model, the Factor model and the Factor model, can help power companies take controlled risks, which will give them a competitive advantage over their competitors.

**The Fifth Axis of Research** aimed to develop a Model for the implementation of an Energy Management Information Management System to reduce the costs of customers of energy suppliers, a model which in its essence can be considered as a tool for optimizing the company's margin energy supplier and its fixed costs. How? By impacting on turnover, market share and sales volume, this is demonstrated by the "cost-volume-profit" model, which is based on the turnover and operating expenses behavior.

That is why the fifth axle of exploitation is addressed in Chapter V, in which we have allowed to suggest and develop an "innovative cost-optimization tool" and to show case-by-case applicability.

#### C. Questions

In order to achieve the goals we have set ourselves and in order to make a contribution to our research, we have sought to answer **a number of questions** that we consider more relevant to our scientific approach, including:

- what is energy? how to get it? how does the energy system and the electricity supply market work? What are the hallmarks of this area and what specificities are there in this area, attracting a tailor-made approach. Answers to these questions have led us to other questions: are things going well or bad? what problems impedes the energy system? is it an aid or a coercion membership of the European Union?
- ♣ is there really a managerial accounting and if YES, what does it contain? Who's serving? Is it fulfilling the role for which it exists?
- ♣ is it important to apply the managerial accounting tools within the power supply companies? If YES, why?
- **\|** which of the different solutions is the best?
- ♣ what are the methods and optimization models used by CEZ Vânzare? are they extensively applicable to other companies in the field?
- **♦** which costs are influenced by the decision to be taken?
- ♣ what to give up if a decision is chosen instead of another?
- ♣ what will be the cost behavior after making the decision? What will bethe logic and what laws will they follow?
- what action can be taken on costs?
- what performance do we mean?
- where do we go?

The answer to the stated questions as well as to other questions that can be found in the thesis content has allowed us to apply the proposed investigation methodology and to formulate conclusions, opinions and models of the accounting and costing calculations applicable to the suppliers of electricity.

In the research we tried to get a response as close as possible to the real needs of the electricity market in Romania. This does not mean that we have managed to respond to all the issues involved, and those we have sought to answer, without claiming that we have used the most relevant scientific papers in the literature, thing which may be questionable and criticized.

By definition, when you investigate the unknown, you do not know what result you will get, which is why we remain nostalgic that we could have approached other views, models or practices in this vast field, but space and time has limited us our approach and we remain hopeful for further research.

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#### **LEGISLATIVE ACTS**

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