

**Review written by a member of a scientific jury,
for obtaining an educational and scientific degree "Doctor"
in D. A. Tsenov Academy of Economics - Svishtov**

Reviewer: Assoc. Prof. Zdravko Lyubenov, PhD, Department of International
Economic Relations in D. A. Tsenov Academy of Economics – Svishtov

Author of the dissertation: PhD student in a part-time form of study at the
Department of International Economic Relations at the Academy of Economics "D. A.
Tsenov", Svishtov – *Ivan Vasilev Ivanov*

Topic of the dissertation: IMPACT OF ENERGY EXCHANGES ON THE
FUNCTIONING OF THE ENERGY MARKET IN THE EUROPEAN UNION

I. General presentation of the dissertation:

1. *Subject:* of the study is the impact of energy exchanges on the functioning of the electricity market as a whole in the EU;
2. *Volume:* 145 standard pages;
3. *Structure:* introduction, presentation presented in three chapters and a conclusion;
4. *Literature:* 83 sources of Bulgarian and English;
5. *Addendum:* two.

II. Assessment of the form and content of the dissertation.

1. Assessment of the relevance of the scientific problem developed in the dissertation and the formulated: subject and object, doctoral thesis, research goals, tasks and research methods, clarity and argumentation of the ideas, distinctness of the novelties.

Relevance of the topic is underlined by the fact that the dissertation is dedicated to an extremely important problem - the impact of energy exchanges on the integrated European energy market. In recent decades, there has been a clear tendency to change its structure. These changes are inspired by the desire to increase the share of electricity produced from renewable energy sources and the introduction of innovations and new technologies. The change reflects on the price of electricity and the factors that affect its formation. Undoubtedly, the importance of stock exchanges as an essential part of energy markets must be considered here.

The literature examines various aspects of the problem of the impact of energy exchanges on the energy market but *lacks (quite clearly expressed in the specialized literature in Bulgarian), in-depth study of these processes, trends, and opportunities as a result.*

In this context, *the current development can be defined as a timely study that incorporates both the theoretical foundations and practical points of reference for scientific elucidation of the impact of energy exchanges on the energy market.*

The object of study is the energy market of the European Union (EU).

The subject of the study is the impact of energy exchanges on the functioning of the electricity market in the EU.

The aim is to analyze the impact of energy exchanges on the functioning of the EU energy market.

The tasks of the dissertation are formulated according to the set goal and have found their realization in the development.

The main research thesis is logical and directs the analytical focus in the presentation to adequately meet the necessary requirements of the conceptual part and the organized empirical material.

The scientific research methods used are adequate to the issues under consideration.

In the dissertation the clarity and argumentation of the ideas is achieved. The contribution of the author is unambiguous.

2. Analysis of the degree of elaboration of the researched problems by other scientists and to what extent the author's own attitude to the considered issues is reflected.

The issue of energy exchanges and the functioning of the energy market in the European Union is covered in the scientific works of many scientists. Their main achievements are reflected in the dissertation. At the same time, the author's own position is evident.

3. Opinion on the volume of the dissertation.

The volume of the dissertation is sufficient for this type of development and covers all its required elements.

4. Opinion on the quality and number of the offered illustrative material - schemes, graphs, tables, etc.

The dissertation is well illustrated by a wide range of tools used.

5. Attitude in the scientific, linguistic and stylistic edition - consistency of the scientific apparatus, presence of deviations, repetitions, logical contradictions, proportionality of the parts, etc.

There is precision in the use of scientific apparatus. No repetitions, logical contradictions and disproportion of the parts are noticed.

6. Assessment of the correctness and the need for statistical processing of empirical data - calculation procedures, significant figures, etc.

The statistical processing of the empirical data was performed correctly.

7. Opinion on the extent to which the candidate has complied with the rules of scientific ethics (incorrect citation of literary sources, publication of one and the same manuscript in different places, plagiarism, the new problem of "copy-paste" in scientific work).

The author of the dissertation has followed the rules of scientific ethics.

8. Opinion on the extent to which the abstract reflects accurately and fully the work.

The abstract accurately and completely reflects the dissertation.

III. Scientific and scientific-applied contributions of the dissertation.

1. Does the proposed text contain the development of existing and / or raising new scientific ideas and results with an opinion on their significance?

The main scientific contributions of the research presented in the dissertation are expressed in the following:

- In-depth systematization and analysis of research on the nature of EU energy policy.
- Derivation of the conceptual framework of the parameters of the electricity market in the EU and its analysis.
- Clarification of modern reforms and liberalization of the electricity sector in the EU.
- Building an approach for researching energy exchanges as part of the EU energy market.
- In-depth analysis of the factors influencing energy exchanges on the functioning of the EU electricity market.

➤ Formulation of an index measuring the impact of energy exchanges on the functioning of the EU energy market – EXIEM (Energy eXchange Impact on Electricity Markets).

The dissertation further *develops the ideas of researchers in the considered issues*. Along with this, there are also *original ideas*.

2. Is there any evidence that the proposed ideas and results have already found reverberation and recognition in the specialized scientific literature?

The author's views are reflected in four articles and two reports presented at scientific forums, which shows the presence of dissemination of research results.

IV. Critical notes, questions, and recommendations on the dissertation.

I would like to ask the author of the dissertation, in its defense, to briefly present his vision for realistic scenarios concerning the development of the processes of impact of energy exchanges on the functioning of the energy market in the EU.

V. Summarized conclusion and opinion.

I think that the formulated goals and objectives in the dissertation have been achieved. Reading it leaves the impression of knowing the nature of the problems and of applying scientific approaches in their analysis and research. *The development is complete and meets the requirements for writing this type of scientific work* placed in the Law for development of the academic staff in the Republic of Bulgaria (ZRASRB) and the Regulations for implementation of ZRASRB.

With full conviction **I give my positive assessment** of the dissertation on the topic: IMPACT OF ENERGY EXCHANGES ON THE FUNCTIONING OF THE ENERGY MARKET IN THE EUROPEAN UNION. I recommend to the other respected members of the scientific jury to vote for the award of educational-qualification and scientific degree "Doctor" in scientific specialty 05.02.10. "World Economy and International Economic Relations" of the PhD student in a part-time form of study at the Department of International Economic Relations at the Academy of Economics "D. A. Tsenov", Svishtov – *Ivan Vasilev Ivanov*.

Date: May 12, 2021

Reviewer
(Assoc. Prof. Zdravko Lyubenov, PhD)