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**THE RESEARCH OF INFLUENCE OF STATE REGULATION  
OF FOREIGN TRADE ACTIVITIES IN THE SPHERE  
OF ELECTRIC POWER INDUSTRY OF UKRAINE  
ON VOLUMES OF ELECTRIC ENERGY EXPORT**

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*The article deals with the research of influence of state regulation of foreign trade activities in sphere of electric power industry of Ukraine. The foreign trade activities in electric power industry sphere play a key role nowadays for Ukraine, because Ukraine carries out export of electric energy to the countries Central and Eastern Europe, and also to the Commonwealth of Independent States countries.*

*The author emphasizes that the current problems of electric power industry are connected with the lacks of electric energy market functioning; imperfect system of tariffs' calculation (concerning granting of services in electric energy transfer and concerning the corresponding centralized dispatching regulation); excessive level of losses of electric energy owing to not developed infrastructure of electric power industry sphere and imperfect capacities of subjects of managing; non-observance of norms of the European Charter concerning realization of principles of liberalization and maintenance of not discrimination access to the main transmission lines.*

**Keywords:** *electric power industry, electric energy export, state regulation, foreign trade, Ukraine*

**Ulida V.Y. Badanie wpływu regulacji państwowej handlu zagranicznego w zakresie elektroenergetyki Ukrainy na przykładach eksportu energii elektrycznej**

*W pracy zbadano wpływ regulacji państwowej handlu zagranicznego w sektorze energii elektrycznej na Ukrainie na przykładach eksportu energii elektrycznej. Należy podkreślić, że energia elektryczna w nowoczesnych warunkach Ukrainy odgrywa kluczową rolę, ponieważ Ukraina eksportuje energię elektryczną do krajów Europy Środkowej i Wschodniej oraz do krajów Wspólnoty Państw Niepodległych.*

**Słowa kluczowe:** elektrownie, eksport energii elektrycznej, handel zagraniczny, regulacja państwowa

**Уліда В.Ю. Дослідження впливу державного регулювання зовнішньої торгівлі в сфері електроенергетики України на прикладах обсягу експорту електроенергії**

У статті досліджується вплив державного регулювання зовнішньої торгівлі в сфері електроенергетики України на прикладах обсягу експорту електроенергії. Наголошується, що електроенергетика в сучасних умовах для України відіграє ключову роль адже Україна здійснює експорт електроенергії в країни Центральної та Східної Європи, а також у країни Співдружності Незалежних держав.

**Ключові слова:** електроенергетика, експорт електроенергії, зовнішня торгівля, державне регулювання, Україна

**Уліда В.Ю. Исследование влияния государственного регулирования внешней торговли в сфере электроэнергетики Украины на примерах объема экспорта электроэнергии**

В статье исследуется влияние государственного регулирования внешней торговли в сфере электроэнергетики Украины на примерах объема экспорта электроэнергии. Подчеркивается, что электроэнергетика в современных условиях для Украины играет ключевую роль, так как Украина осуществляет экспорт электроэнергии в страны Центральной и Восточной Европы, а также в страны Содружества Независимых Государств.

**Ключевые слова:** электроэнергетика, экспорт электроэнергии, внешняя торговля, государственное регулирование, Украина

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## **Introduction**

The foreign trade activities in electric power industry sphere play a key role nowadays for Ukraine, because Ukraine carries out export of electric energy to the countries Central and Eastern Europe, and also to the Commonwealth of Independent States countries. Nevertheless, the imperfect system of state regulation of foreign trade activities in electric power industry sphere interferes increase of electric energy export volumes that, in turn, is negatively reflected in the general condition of national economy.

## **Analysis of recent research**

Such domestic and foreign authors devoted their scientific works to questions of research of state regulation of foreign trade activities in electric power industry sphere nowadays: N. Nizhnik [1], B. Rajzberg [14], I. Franchuk [17], B. Slupsky, V. Maljuska [15], S. Stoft [16] etc. Nevertheless actual is research of dependence of electric energy export volume on productivity of state regulation

of foreign trade activities in electric power industry sphere taking into account current difficult social and economic situation in Ukraine.

### **Statement of research objectives**

The purpose of work is revealing of current problems of state administration of foreign trade activities in electric power industry sphere on the basis of electric energy export dynamics' analysis.

It is necessary to solve the following problems for achievement the given work purpose:

- to analyze the basic tendencies of dynamics of electric energy export from Ukraine during last five years;
- to reveal the current problems of state regulation of the electric power industry sphere foreign trade activities.

### **Results**

It is expedient to carry out the analysis of dynamics of electric energy export from Ukraine during last five years with the purpose of revealing of productivity of state regulation in electric power industry sphere.

The structure of electric energy export from Ukraine in 2010 is presented in tab. 1.

Table 1

**The structure of electric energy export from Ukraine in 2010**

<b>Direction of electric energy export</b>	<b>Countries</b>	<b>Volume of electric energy export, million Watts</b>	<b>Share in total export amount, %</b>
East and Central Europe	Hungary, Slovakia, Poland, Romania	1173,7	27,8
Commonwealth of Independent States (CIS)	Byelorussia, Moldova, Russia	3045,2	72,2
In total	-	4218,9	100,0

It is possible to see from tab. 1, that the prevailing part of electric energy export from Ukraine in 2010 is corresponded with the CIS countries and made 72,2 % from total amount of the electric energy realized abroad.

The volumes of electric energy export from Ukraine to the countries of East and Central Europe, and also to the CIS countries were approximately equiva-

lent during the following 2011. Thus the share of electric energy export to the countries of East and Central Europe increased twice that is shown in tab. 2.

Table 2

**The structure of electric energy export from Ukraine in 2011**

<b>Direction of electric energy export</b>	<b>Countries</b>	<b>Volume of electric energy export, million Watts</b>
East and Central Europe	4855,3	49,9
Commonwealth of Independent States	4870,9	50,1
In total	9726,2	100,0

The shares of electric energy export from Ukraine to the countries of East and Central Europe, and also to the CIS countries were identical too and have made, accordingly, 49,9 % and 50,1 % during 2012 that it is possible to see in tab. 3. Nevertheless, the volume of electric energy export to the countries of East and Central Europe reduced to 1784 million Watts, and electric energy export volume to the CIS countries reduced to 1607,8 million Watts.

Table 3

**The structure of electric energy export from Ukraine in 2012**

<b>Direction of electric energy export</b>	<b>Countries</b>	<b>Volume of electric energy export, million Watts</b>
East and Central Europe	3171,3	49,3
Commonwealth of Independent States	3263,1	50,7
In total	6434,4	100,0

The volumes of electric energy export to the countries of East and Central Europe increased to 2233,2 million Watts during 2013, and in percentage expression they increased by 5,7 % in total amount of export in comparison with the last 2012. Concerning volumes of electric energy export to the CIS countries in natural expression they increased to 1164,0 million Watts, and in percentage expression their part decreased by 5,7 in total of electric energy amount. The resulted information is displayed in tab. 4.

Table 4

**The structure of electric energy export from Ukraine in 2013**

<b>Direction of electric energy export</b>	<b>Countries</b>	<b>Volume of electric energy export, million Watts</b>
East and Central Europe	5404,5	55,0
Commonwealth of Independent States	4427,1	45,0
In total	9831,6	100,0

The decrease of volumes of electric energy export to the countries of East and Central Europe is observed near 483,8 million Watts during 2014. The corresponding share of electric energy export in its general volume during the given accounting period decreased by 9,9 %. As to volumes of electric energy export to the CIS countries it increased by 1559,4 %. Concerning corresponding share of electric energy export in its general volume it is necessary to notice, that it increased by 9,9 % in 2014. The specified data is displayed in tab. 5.

In total electric energy export volume to the countries of East and Central Europe has increased more than in 4 times during last five years by results of research of change of electric energy export volumes from Ukraine during 2010-2015.

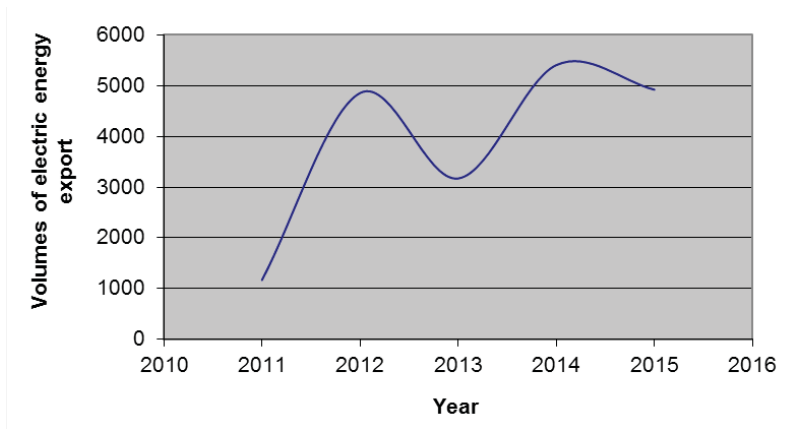
Table 5

**The structure of electric energy export from Ukraine in 2014**

<b>Direction of electric energy export</b>	<b>Countries</b>	<b>Volume of electric energy export, million Watts</b>
East and Central Europe	4920,7	45,1
Commonwealth of Independent States	5986,5	54,9
In total	10907,2	100,0

Nevertheless, electric energy export volumes to the countries of Central and Eastern Europe decreased to 483,8 million Watts during last 2014 that is shown in tab. 4–5.

Besides, it is necessary to pay attention to instability of electric energy export volumes to the countries of East and Central Europe during 2010–2014 according to data presented in tab. 1–5 and fig. 1.



*Fig. 1. Dynamics of change of electric energy export volumes from Ukraine to the countries of Europe during 2010–2014, million Watts*

Concerning electric energy export volumes to the CIS countries it has increased almost in 2 times during last five years that is shown in tab. 5.

General dynamics of electric energy export from Ukraine during 2010–2014 is displayed in tab. 6.

Table 6  
**Dynamics of the electric energy export from Ukraine during 2010-2014**

Year	Total export volume, million Watts	Absolute deviation, million Watts	Relative deviation, %
2010	4218,9	-	-
2011	6434,4	2215,5	52,5
2012	9726,2	3293,6	51,2
2013	9831,6	105,4	1,1
2014	10907,2	1075,6	10,9

It is possible to see from tab. 6, that during 2010-2012 rate of growth of electric energy export from Ukraine stably increased by 50 %, nevertheless, the tendency to sharp decrease in rate of electric energy export volumes' growth to

1 % is observed since 2013. The rate of electric energy export volumes' growth increased almost to 11 % in 2014, nevertheless it was in 5 times less, than in basic 2010. Is a whole, during 2010-2014 the total amount of electric energy export from Ukraine has increased in 2,5 times accordingly to data given in tab. 6. Nevertheless, it is necessary to note essential decrease in rates of growth of electric energy export volumes from Ukraine during last 2013-2014.

### **Conclusions**

Among the reasons of the given current situation it is necessary to pay attention to the following ones:

- High level of amortization of capacities and objects of electric power industry sphere infrastructure, corresponding requirement for carrying out of their technical and technological modernization according to modern requirements concerning productivity of manufacture, needed energy resources, ecological safety and absence of the corresponding financial resources;

- Absence of free competition in the markets of natural gas and coal as primary energy carriers;

- Insufficient integration into the Electric energy pool of the European Union;

- Presence of debts of subjects of economic activities in the electric power industry market;

- Practice of cross subsidizing between different categories of consumers (realization of subsidizing of household consumers due to enterprises);

- Dependence of activity of state regulation bodies in electric power industry sphere from influence of political factors, in particular, concerning establishment of tariffs and distribution of financial resources.

Accordingly, it is necessary to allocate the current problems of electric power industry state regulation:

- Lacks of electric energy market functioning (excessive intervention in activity of the market from the state; presence of natural monopolies; imperfection of contractual relations system; absence of the developed market of auxiliary services; insufficiency of organization of export and transit operations concerning electric energy, etc.);

- Imperfect system of tariffs' calculation (concerning granting of services in electric energy transfer and concerning the corresponding centralized dispatching regulation);

- Excessive level of losses of electric energy owing to not developed infrastructure of electric power industry sphere and imperfect capacities of subjects of managing;

- Non-observance of norms of the European Charter concerning realization of principles of liberalization and maintenance of not discrimination access to the main transmission lines.

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